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AT THE TWENTY-SECOND ANNUAL MEETING OF THE CANADIAN
MEDICAL ASSOCIATION, HELD AT BANFF, N.W.T.,
AUG. 12TH, 13TH AND 14TH, 1889.

By H. P. WRIGHT, M.D.,
President of the Association.

Gentlemen of the Canadian Medical Association :

Contrary to the usual custom on such occasions as these, I will ask you to share with me a few moments to consider the loss the country, the profession, and the Canadian Medical Association have this year sustained in the death of Dr. Robt. Palmer Howard. My reasons for alluding to this sad circumstance in the very earliest stage of my remarks are, because of the long standing and deep-seated affection I feel towards my teacher, my friend, and my ideal physician, and because of the prominent position he held in this Association and the feeling of admiration entertained towards him by its every member. I wish, indeed, I felt equal to the task of doing justice to such a theme as the one I have now before me, but any attempt of mine must fall so far short of even mediocrity, that I shall only try to outline some of the principal events of his active and exemplary career. He spent a portion of his youth in the city which has been my home for the past twenty-three years, and those who recollect him describe him tersely as having been upright, energetic, and studious. These are the traits which characterized his youth and which dwelt in the memories of those who knew him nearly

fifty years ago, and these are the traits which characterized his life and made him what he was—a good Christian, a good citizen, and a great physician. In 1848 he graduated at McGill University, and then devoted about a year to hospital work abroad. Soon after his return he was appointed demonstrator of anatomy in his own college. His teaching powers were soon recognized, and in 1856 he was appointed to the chair of Clinical Medicine, together with a position on the staff of the Montreal General Hospital. Later, on the death of Dr. Holmes, he was elected to the chair of Practice of Medicine. With this he became identified. For nearly thirty years not only did he lecture on, but *taught* the practice of medicine. As he eloquently discoursed on some given disease, he artistically painted perfect pictures and brought his subject so vividly before the student's imagination, that after contact with pathological conditions in the hospital wards he soon made himself, if he chose, master of the situation. In 1882 he became Dean of the Medical Faculty on the death of Dr. Geo. W. Campbell. In this position, as in all others, his far sight and good judgment, and his knowledge of the rapid strides being made in every department of science, enabled him to recognize the necessities of the times, and, with a steady and unswerving hand, to develop the college into a great scientific workshop, to be filled with busy teachers and demonstrators rather than didactic lecturers. When, in 1884, the present able incumbent of the chair wholly relinquished the practice of his profession for the teaching and culture of the department of animal physiology, the Dean gave him and his subject the moral support he so fully appreciated. In alluding to the circumstance in a brief obituary, Dr. Mills tells us he supported him with a gigantic moral strength, which he felt like the "shadow of a great rock in a weary land." The University showed their high estimate of the Dean's valuable work and conferred on him the honorary degree of LL.D., but the greatest of all a teacher's rewards is his, for he dwells for ever in the memories of the hundreds of grateful students who received their early and most valued instruction from his lips. The Canadian Medical Association has certainly lost in Dr. Howard one of its bright and

shining lights. From its very birth until it attained its majority did he take a deep and active interest in its welfare, which, if shared in by even a tithe of the profession in Canada, would have made the Association a tower of strength in the country for the country's good and one of the world's recognized scientific institutions. With untiring zeal he tried to hold together the different elements of which every truly national society in this country must consist. He always maintained that science knew no creeds and had but one language, and that our French-Canadian *confrères* should have withdrawn themselves and have ceased to unite with us in advancing the interests of our common profession was to him a source of the deepest regret. In 1880 he was elected president of this body, and previous to that time held many offices of responsibility. To each and all he devoted the greatest attention, for he had no mentor equal to that of duty. He steadily fought for needed reforms through the medium of the national association, and faithfully, though unsuccessfully, endeavored to bring about the organization of a Central Examining Board for the Dominion, believing that such a scheme would be alike in the interests of the profession and the public. His regular contributions to the scientific part of our annual feast were listened to with pleasure, and I have no hesitation in saying, with profit, by every one who had the privilege of hearing them. His close reasoning, his familiarity with the latest researches, and his careful analysis of new theories, often filled the minds of his hearers with wonder. He possessed the great power of taking in the whole and separating the wheat from the chaff. In his private capacity as a physician I know of no words to describe him, and as a friend, my personal feelings demand absolute silence. How well he endeared himself to his patients by his untiring care and skilful management of their ailments, his naturally kind and sympathetic manner, and his ever faithful adherence to the truth, can in some measure be understood by all who know him. He died on the 28th day of March, after a fortnight's struggle with an attack of acute pneumonia—strange to say, the disease, perhaps of all others, with which he was most familiar, and of which he had been for many years a keen ob-

server and faithful recorder. He was cut down in the midst of his usefulness. He fell at the post of duty: and it was better so, for, to a temperament like his, a long sickness or a life of inactivity would have been worse than death.

“ But when we muse on all thy great heart hunger
For knowledge and for light,
How thy keen intellect was always searching
For deep things hid from sight,
We smile to think how clear is now thy vision,
Thy face—how bright.”

At the annual meeting of this Association in 1887, Dr. Graham of Toronto, in his presidential address, earnestly advocated periodical rest and change for the steadily working medical practitioner. His successor, and my immediate predecessor, feeling that advice from such a source deserved attention, took a trip in the summer of '88 to the Pacific coast, and was so impressed with the panoramic magnificence of the country through which he passed, and so strengthened and invigorated by the pure dry air of these vast plains, that when it became his duty to address the Association, he suggested, with a great deal of feeling, having the welfare of his *confrères* at heart, that Banff should be our next place of meeting: so that to these two presidents are we indebted for the trip we are now enjoying. Who can say he is disappointed? May we not justly expect to return to our homes refreshed and strengthened in mind and body, readier than ever for the varied and onerous duties our chosen and loved profession demands of us. Yet we must not forget that these same healthful and invigorating surroundings justify us in expecting a great deal of this meeting. Such a pure, bracing atmosphere must quicken the wit, and such a rare combination of the grand and beautiful in our surroundings must stir up within us all that is eloquent and poetical. This meeting will, I hope, be characterized by good work and by brisk and fearless discussion, for, no matter where situated, the voice of the Canadian Medical Association should be heard and its influence felt throughout the whole length and breadth of our country. I hope that resolutions passed here to-day may affect legislation in the near future. It is high time our Parliaments recognized

our Medical Associations, and if they do not, we ourselves only are to blame. And we are blameworthy, to our reproach be it said; for, are we not, as the belligerents of disease, the natural guardians of the public health? And should we not be a unit, not of apathy, but of earnest activity, in all matters of sanitary legislation? Can anyone for a moment imagine that if each medical practitioner would exert himself in favor of some one movement, which has for its sole objects the prevention of disease, the protection of the people and the prolongation of life, that that object would not soon be attained! Gentlemen, it is our duty to exert ourselves. It is our duty not only to support measures affecting the public health, but, as medical associations, to bring them before the notice of the different governments, and, as individuals, to gain the personal attention of our representatives in parliament, for surely we should be familiar with the necessities of sanitary reforms long before a body of legislators composed chiefly of lawyers, men of commerce and agriculturists. Let us then be up and doing, and while others go before the electors preaching national wealth, let our watchword always and for ever be—*national health*.

This brings me, rather sooner than I expected, to a subject which has often occupied my thoughts, and which has already, on several occasions, been alluded to from this chair—more particularly by the gentleman who occupied it in 1880. The great desirability, indeed the necessity, of establishing a Central or National Board of Health has long been felt by the profession, but until within the past year the question was never raised on the floor of the House of Commons. It has now been freely talked over by the medical members of Parliament, and a notice of the following resolution was given by Dr. Roome on the 11th of last March: "That, in the opinion of this House, the time has come when the Federal Government should establish a Central Board of Health, with a responsible head, for the purpose of educating the people in health matters, preventing the spread of disease, and perfecting, as far as possible, the return of vital statistics." The importance of such a movement as this can hardly be over-estimated. In the early history of this

Association many and lengthy were the discussions on this question, with, however, so little satisfaction, and at the cost of so much ill-feeling, that in its fourth year a resolution was brought in stating that as all matters of public health belonged to the Provincial Parliaments, the question should not, for the present, be discussed by the Canadian Medical Association. In 1880, nothing daunted, Dr. Howard again brought this matter before this Association, and so earnest was his appeal, and so clear and concise his plan, that when a national board of health becomes an actual fact his name should be for ever associated with its foundation. He suggested that each Province should have its own Board of Health, and that there should be a Central or National Board at Ottawa, all to work together for the public welfare. That amongst other duties should be assigned to the National Board "the preparing of a comprehensive plan for a national public health organization to be submitted to the Federal and Provincial Legislatures for their approval; the obtaining information upon all matters affecting the public health; the advising the several departments of the Government and the Executives of the several Provinces on all questions submitted to them, or whenever, in the opinion of the Board, such advice may tend to the preservation and improvement of the public health; the securing the establishment of a board of health in each Province, whose functions shall be performed in accordance with the plan prepared by the central board; the guiding, advising and assisting provincial boards, and securing their co-operation in the obtaining of regular periodical reports upon all matters of State medicine; the combining and summarizing in annual reports all the information and facts contributed by the several provincial boards of health, and by any municipal organization or other source." Further on he says the board should consist of a physician, a surgeon, a physician with practical experience as a health officer, a chemist, a veterinarian, a statistician, and a sanitary engineer and architect, all first-rate men, and to receive compensation during the time when actually engaged in the performance of their duties. Here is a scheme which every one must admit is as practical as it is comprehen-

sive. In Ontario to-day we have a board of health in good working order, faithfully performing its duties in guarding the health interests of its own Province. If each Province was equally well equipped, and all united to assist such a central board as I have indicated, the number of lives annually saved to the country would be very great, though difficult to estimate. Dr. Roome's scheme is much like that proposed by Dr. Howard. He tells me he purposes laying before the Federal Parliament a plan for the establishment of a Department of Health, presided over by a responsible head as a minister of health, or, if associated with the department of agriculture, or with the department of the Secretary of State, by a deputy minister, with an advisory board of, say, five or more of the members of the House, the majority being medical men. The department would have for its objects the education of the people in all matters of health, the prevention of the spread of disease, attention to sanitary regulations and the adulteration of food and drink, the perfecting of the system of collecting vital statistics, and the establishment of a hygienic laboratory for investigating the causes of disease. All these, with the exception of, perhaps, attention to sanitary regulations, come under the jurisdiction of the Federal Government. To a body of scientific men such as I have the honor to address, argument is almost unnecessary. That such a department, properly administered, must soon become a great life-saving, health-giving organization cannot be doubted. Bacteriology, though yet but a new and imperfect science, has already taught us that many of the most important diseases we meet with are communicable. Could the progress of tuberculosis, to which I shall have occasion to refer later on, alone be arrested, when we consider that over 15,000 of our people succumb to its lethal influence every year, the reward would be sufficient. The well-known epidemic and endemic diseases, some of which are constantly in our midst, and how far they could be controlled by prompt and effective legislation, I need not allude to. The great prophylactic properties of vaccination are admitted on all sides, and as long as the world lives will Jenner be regarded as one of the greatest benefactors of the human race ;

yet, as most of us hold that, with a better knowledge of the nature of contagion and the laws governing contagion, smallpox ought to be controllable, the necessity for inoculating each individual with virus from a possibly tubercularized cow may be, in the near future, open to question. Under such a department, whose cause I am now maintaining, such important questions would have to be considered. Such a bureau should be in communication with all others of a like kind throughout the world, for all scientific institutions have a common cause; so that, in addition to the good gained by original investigation, such a body should be an epitome of universal knowledge on all matters affecting public health. Some will say that a department of this kind, with such an extensive programme, could not be conducted with the limited allowance likely to be granted to a new undertaking; but, if we regard the question in its proper light, the difficulties are not insurmountable, for we, as a profession, ought to consider ourselves one great department of health, ready, as individuals, to devote some of our time and energies to the development of its aims, and, through the medium of our Medical Associations, to convey to our official chiefs in the central bureau information from all parts of the Dominion. Now is the time to act. Let us have petitions signed in every district throughout the country. Legislators are willing to listen, and, among the medical members of parliament, never was there "such a strong feeling aroused as to the necessity of some central responsible body to look after the health interests of the Dominion." The great merit of this subject is my excuse for dwelling on it at such length. I hope it may not prove to be a "vain repetition," and that my successor may be able to announce from this chair next year that something has been accomplished.

With your leave I will touch again upon an old topic, and say a few words on the Canadian Medical Association *as an organization*. It was framed twenty-two years ago after the model of the British Medical Association. It had to be built after some model, and certainly none better could have been chosen than that of the greatest of the world's medical societies. But the circumstances of the two countries are so different—the mother

compact and thickly populated, so that every member is within easy touch, whereas we are scattered over an area equal in extent to the whole of Europe, with a population about the same as that of the city of London. In Great Britain nearly all the smaller societies are branches of the greater, and are governed by the same rules and regulations. Here, in the nature of things, each medical society is a complete entity, and no one is in any way related to the other. Though this may look like a commendable independence, it is a source of weakness, and cuts us off from a great deal of useful information. The Canadian Medical Association should be a more or less synthetical body, built up by representatives of every medical association in the country—not that I would exclude any registered practitioner. Let every medical man who can, feel it to be his duty to attend, but let us have delegates. I would suggest that the secretary of every medical association in the country bring, or send, a condensed report of the year's proceedings to be read at the annual meeting of the parent society; that good papers be re-read and fully discussed—the papers would be new to many and the discussions more general and more valuable. I would suggest that the travelling expenses to the general meeting of the secretary be paid out of the funds of his own local association (excepting, probably, when we meet in the neighborhood of the Rocky Mountains). The amount of information thus to be gained would make these meetings extremely attractive and successful, for, believe me, though the social feature of these meetings is in nowise to be despised, few men will annually leave their homes and their work for such an inducement alone. Their health can be recruited at some more convenient place or in some more economical way. The only one lasting incentive is the amount of good gained, the number of new facts brought home, and the practical lessons learned. This only will command good attendance and ensure success.

Education, professional and general, has so often been dealt with, that I approach the subject with considerable hesitation; and yet its importance compels me to bring it to your notice. I should like to remind you that we are all shareholders in this

bank, whose capital is knowledge, and not till each one appreciates his responsibility can we expect to perfect a system of education already good, but not faultless. In Ontario the system of medical government is thoroughly representative, and as the council, elected every three years by the registered practitioners, has the appointment of the examiners for the license, and full control over the choice of subjects for examination, we should be careful to vote for the best men, and aid them in every way to raise the standard of education, as the growth of the country and the advancement of science render it necessary. This system has now been in working order for about twenty years, and is so successful that I cannot express a better wish for the sister provinces than that they may follow Ontario's example. Dr. Holmes, in his address in 1886, dwelt at some length on the importance of a more thorough and liberal early education. To use his own words: "The future of the medical profession in this as in every other country will largely depend upon the natural ability, and the mental and moral training in childhood and youth, of those entering its ranks; so that in considering any scheme for the creation of a high standard of medical qualification, domestic training and the plan of education pursued in the public schools must be recognized as bearing an important part." And he goes on to tell us that, instead of children being taught to reason and think, their memories are overburdened with facts and figures. I am strongly of the opinion that elementary physiology and chemistry should be carefully and practically taught in our public schools, and that these subjects should form a part of the curriculum for the entrance examination to the study of medicine. Without some knowledge of these sciences, the student enters upon the study of his profession seriously handicapped, and the teacher labors under equally serious disadvantages. A greater part of the first year is wasted in becoming familiar with new terms; such a loss as this cannot be sustained by a four years' course. The entrance or matriculation examination throughout all the Provinces is about the same, and represents a fair general education. This was well enough twenty years ago, but it is not enough now.

Such progress has been made in every department of science, that a higher and broader culture is necessary to those entering these fields of labor. Many consider a B.A. degree a necessary qualification, and with the increased facilities offered by our Universities, this is not, at least in the older Provinces, an impractical suggestion. No doubt some of our best men in medicine, particularly on this continent, had to battle against the opposition offered by the want of means in their early struggles. All honor to *them*! But these men are made of such stuff that success is part of themselves, and the mere increase of the standard of the entrance examination, even to such an extent as I have just mentioned, is only putting on another bar to the fence they have to climb; but for all that, the climbing will be successfully accomplished.

Of our medical schools in Canada we have good reason to feel proud. They are under the care and management of thoughtful, hard-working and self-sacrificing physicians and surgeons. In most instances the teachers are necessarily active practitioners, for few in our ranks have private means, and the instructors' pecuniary rewards are but pittance. As a country, we do feel proud of our schools, and, as a people, grateful to our teachers; but, we know, as institutions they are not yet perfect. These imperfections are not faults controllable by the teachers; they are the silent appeals to the wealthy and philanthropic. To quote from Dr. Alfred L. Loomis in his magnificent address to the New York Academy last year: "Why is it that men of wealth do not realize their great opportunities for wise liberality in this direction, liberalities which will not only shed lustre upon themselves, but will mitigate the sum of human misery as certainly, and in many ways far more effectually, than our hospitals and charities for the sick and suffering poor." He blames the profession for not having tried to direct the stream of accumulated wealth in this direction, for, "next to religion, education is the corner-stone of our civilization." Then, after alluding to the noble gifts recently made to some of the medical colleges, he is inspired by the hope that the stream of emotional benevolence for the sick and suffering is being turned into intellectual

channels for higher educational needs. *We* have not yet to complain of emotional benevolence, as they have in the city of New York, where they have so many hospitals and dispensaries that patients are at a premium ; but we know that public attention has not been sufficiently directed towards the endowment of chairs in our educational institutions, for the provision for scholarships to help on the needy and industrious student, or for the establishment of a general fund for the purpose of erecting and maintaining laboratories at different points to further original investigation and research. All these are necessary if we are to have a perfect system of medical education "in order that those who teach may, by personal and familiar contact, gain such intimate knowledge of each student and firm control of his mental processes" as will enable them to become teachers in the good old Anglo-Saxon sense—to be educators, and not simply instructors "pouring out their daily dole of wisdom into unreceptive ears."

Within the past year several strong appeals have been made, through our medical press, in favor of more practical instruction, and that every student may have books in his possession giving a careful digest of the subject he is studying. The teacher's duty, in so far as the method of imparting knowledge is concerned, is changed. When books were scarce and biology was a nursling, twenty or twenty-five years ago, didactic teaching was a necessity and note-books were valued possessions. Now, our teachers should be expert demonstrators, appealing largely to the senses in the hospital wards and laboratories.

The question of reciprocity between the Provinces and between each and the mother country has frequently been before us, and last year a committee was appointed to make all possible enquiries and to report at this meeting. I am afraid such a report is not forthcoming, because of the scattered positions of the members of the committee. The matter is altogether in the hands of the Provinces, and whether it would be well or not to discuss the subject at this meeting in order to let the proper authorities know how we think about it is for you to decide. In this connection, I might mention that since our

last meeting the College of Physicians and Surgeons of the Province of Quebec, under the presidency of Dr. Hingston of Montreal, has succeeded in bringing about satisfactory reciprocal arrangements with Great Britain.

When it was decided that the Association should meet at Banff, it occurred to me that, to be in tune with the place and its surroundings, I might discuss at some length Canadian climatology and, in connection with it, the Canadian mineral springs. These subjects had for me the attractiveness of novelty, as well as being of some considerable importance; but the deeper I dipped into the well from which I sought information on these branches, the more difficult I found it would be to do them justice and not to tax the patience of even the most indulgent audience. Those who are interested in the subject will find a graphic and almost poetical description of the country and its climate in Dr. Hingston's brochure entitled "The Climate of Canada," and, I understand, a work will shortly appear on the mineral springs of Canada by my painstaking fellow-townsmen, Dr. Beaumont Small, the author of the article on Medicinal Springs in the *Reference Handbook of the Medical Sciences*. That the first meeting of the Canadian Medical Association outside the limits of what is now known as the older provinces should commend itself to our thoughts is most natural; and were I not to devote some time and attention to the development of the North-West and British Columbia from a medical point of view, I should feel myself unworthy the position I occupy to-day, and derelict in my duty, at least towards the nominating committee of last year. When we consider that the whole of this vast country, as far west as the Rocky Mountains, but twenty short years ago, was looked upon by the world, not excluding Canada, as a barren waste, a great lone land unfit for civilized human habitation, we must, indeed, be the prototypes of its original inhabitants if we are not moved with wonder and surprise at the present extraordinary evidences of advanced modern civilization as we passed through flourishing cities, active towns and villages, great tracts of country under the highest cultivation, comfortable homesteads occupied by a healthy, happy and

thrifty people hailing from "all the four corners of the earth," and then, when we remember that we have been conveyed hither by a railroad spanning the continent, superlatively well equipped, and the most extensive in the world, and that its first sod was not turned fifteen years ago, we ought to feel proud of our citizenship. We must also acknowledge that this is a favored corner of the earth, designed by nature to be peopled by a great people. Practical observation has demonstrated to us the superiority of a high altitude, with a dry, cold and well sunlit atmosphere, over and above all others, to prevent the development of tuberculosis in those who are predisposed; and the *curative* properties of medium altitudes with somewhat similar atmospheric conditions. How these atmospheres prevent and cure consumption is an interesting question for consideration. Till recently it was accounted for by Jaccoud's explanation, by bringing the idle portions of the lung into activity owing to the lessened supply of oxygen. Now it is more generally held to be owing to the absolute purity of the air—the absence of microbic life. Here we have the perfection of aseptic atmospheres—a condition recognized by the aborigines, who cure their meat by drying it in the sun without fear of putrefaction. It was also observed by our volunteer surgeons during the troubles of '85, who found wounds to heal without special dressings, by first intention. This particular spot is most favorably situated, and seems to me to offer greater protection to the weak-lunged than to any other class of the ailing community—situated, as it is, at an elevation of 5,450 feet above the sea level, with a temperature never oppressively high and not subject to rapid diurnal changes, a freedom from moisture, an almost cloudless sky, and surroundings whose beauty and grandeur beggar description. Before, however, this section of the country can be regarded in the light of a first-rate sanitarium, a well-managed signal station will have to be established. This, I am satisfied, will not long be delayed by the Government. The mineral springs of this district, and from this to the Pacific coast, are said to be very numerous and mostly thermal. The best known are at Banff and Harrison's Lake. They enjoy a wide reputation, particularly for the treatment of syphilitic and

rheumatic affections. Their waters are chiefly saline and alkaline.

Great as has been the material development of this new country, scientific and professional advancement have not lagged behind. Medicine is abreast with the others, and now in every settled part of these territories are to be found active and energetic doctors willing to work and anxious to grow with the country's growth. In the city of Winnipeg there are two hospitals, an insane asylum, and a medical college affiliated with the University of Manitoba. Belonging to the Province is the College of Surgeons and Physicians, which is composed of every registered practitioner, and is the sole licensing body. The medical college is well equipped and conducted by a staff of teachers of known ability and exceptional energy. By an Act passed in 1886, all the examining powers formerly belonging to the College of Physicians and Surgeons were vested in the Manitoba University, and in lieu thereof seven members of the College of Physicians and Surgeons became members of the Council. The requirements for the degree of M.D. are much the same as in the several universities of Ontario, including the matriculation examination. Having passed the necessary ordeals elsewhere to the satisfaction of the Council, the candidate may register, when, on the payment of \$25, he becomes a member of the College of Physicians and Surgeons of Manitoba. The presence of seven members of the College in the Council is a wise arrangement, as it guards the interests of the outside profession and makes a second examination unnecessary.

A perusal of the last report of the Winnipeg General Hospital leaves no room for doubt as to the good work being done by that institution. It is built according to the most approved methods, and, besides having a lying-in hospital and wards for contagious diseases in separate and distinct buildings, it has a well-appointed Nurses Home and Training School, built at a cost of \$10,000, and accommodates twenty-two nurses. This is an excellent plan, and might with advantage be adopted by many of our eastern hospitals. I know of only one, the Toronto General Hospital, having such an annex.

The medical history of the North-West Territories is, though brief, not uninteresting. But a short time ago the only "medicine man" was the Indian, who used roots and herbs to heal the sick, and, in the words of a narrator, in all serious cases clothed himself in fantastic garments and invoked the bad spirits to leave their victims. In 1874 the first properly qualified medical men came into the North-West Territories with the mounted police, under the command of Colonel McLeod. Eleven years after, in the month of December, the Medical Act of 1885 became law. This Act was passed by the North-West Council, and shows a great deal of care and judgment. Under it a license was granted to all qualified men from other licensing bodies within Her Majesty's domains, and to those from the United States who could show that a full two years course had been taken. Even to those who had been practising without a license the Council gave an opportunity of passing an examination before two of its appointed examiners. In 1888 the Act of 1885 was repealed, and now the medical law is much the same as in Manitoba. Every registered practitioner is a member of the College of Physicians and Surgeons of the North-West Territories. There is a council of five elected every five years; an examination held annually, and fixed fines imposed on all the unqualified. So you see the people of these Territories have lost but little time in protecting themselves against the certain invasion of quacks and charlatans.

The Province of British Columbia was well known long before Confederation. The magnificence of its scenery, its grand mountains and rivers, its fine harbors, great mineral wealth, and delightful climate, have made the country familiar to every school-boy. I hope some of the profession hailing from that envied province will give us facts relating to its climate, which, I have always understood, admits of as much variety as it does in that wonderful island whose northern extremity is John-o-Groats and whose southern is the Land's-End. In it our profession is well represented, and working under a good Medical Act. The Council numbers seven, and is elected by the registered men of the province. It meets once a year, and during its sitting examines candidates.

That satisfactory progress has been made in the science of medicine during the past year is beyond dispute, and is of such an extent that even a short commentary on each new fact brought to light, or on the several new theories claiming our consideration, would lead me into regions beyond the limits of an address of this kind. There are one or two points, however, I feel called upon to allude to, and without any intention of interfering with the gentlemen who have been asked to address the Association on the different branches of medicine. Considering that we are, with very few exceptions, general practitioners, each one of us bound to give a great portion of his time to the practice of midwifery, it is to be regretted that so few papers are brought before the different medical associations by those whose opinions may be looked upon as more or less authoritative, because of special study or extended experience. I venture to say graduates, as a whole, go out into the world knowing less of this subject than of any other, and yet an obstetrical case is among the first they have to deal with. I do not propose to discuss the methods of teaching midwifery; it, like other branches of our profession, has of late years been more practically and properly taught. I claim that we should, at our different gatherings, talk more freely of and about what is new and good in this particular field of observation. The life-saving claims of antiseptics in midwifery are generally, I think I may say universally, recognized, and in some cases probably over-estimated, for, as Dr. Galabin aptly puts it, not even the most fashionable antiseptics of the day would be a sufficient compensation for allowing unnecessary lacerations of cervix or perineum, for omitting to secure good contractions of the uterus, for leaving a ruptured perineum unsewn, or for bruising tissues needlessly in operations. What accounts for the large mortality among children in footling presentations? I unhesitatingly say *ignorance* of the more recent methods of treatment. How often is the chin depressed without any regard to the position of the head in the pelvis, and how many know how to diagnose the position of the head? The recent opinions about extra-uterine foetation, its early recognition and treatment, and the possibilities of faradization in such cases,

deserve thought and attention. Craniotomy and the Cæsarian section, each with its strong advocates, are before us as unsettled questions. It is astonishing to think that the mortality of the latter operation was, six years ago, from 70 to 90 per cent., and now, with the improved operation, as done in Dresden and Leipzig, only 15 per cent. ! Though few of us are prepared to go so far as to denounce every craniotomist as a murderer, as some blind enthusiasts have not hesitated to assert, yet we must confess that to destroy a life capable of being saved, without increased or undue risk to the mother, for the want of knowing how, is almost criminal. And yet how many general practitioners are aware of these things ? How many are prepared to do the right thing at the right time ? I know of good men, well up in their surgical and medical work, who never think of referring to any other text-book in cases of doubt or difficulty than the one they read during their student's career, twenty or thirty years ago. Any new ideas have been gathered from the weekly or monthly journals, on such popular topics as puerperal fever or antiseptic midwifery ; and in the selection of a few new books from the great mass annually produced, the last one thought of is the work on obstetrics.

In passing on, I must stop for a few minutes with the busy bacteriologists, even at the risk of being attacked by the chemist, therapist, physiologist, surgeon, obstetrician, and by him who represents the practice of medicine, for having entered on their preserves. The researches of the past few years have taught us that bacteria are at the bottom of nearly all our troubles. Numerous stomach and intestinal ailments, heretofore known only as indigestion, dyspepsia, diarrhoea, and so forth, have been shown to be due to the presence of certain microbes, which directly, or by their secretions, give rise to ferments and produce poisons ; and these, if not neutralized by healthy secretions, or eliminated by healthy glands, will cause certain toxic symptoms varying from a temporary depression of spirits or a dull headache to a fatal coma. That all febrile conditions are due to microbic life is highly probable, and that the specific fevers are so caused has been proved, if not in every instance by demon-

stration, certainly by analogy. That a fever is specific must be because of the special microbe causing it, but why it should run a definite and limited course has not yet been demonstrated. If our defenders, the leucocytes, are not sufficiently strong or numerous to overcome the invaders at once and destroy them, we cannot help wondering why they should not go on and multiply so long as they have food to live on : and so they may. A neat explanation of the limitation of fever is in this possible self-destruction or starving out hypothesis. It may be that "fever, by destroying the morbid products that produce it, serves a most useful rôle in the restoration of the patient to health." A recent author, I think a German, goes so far as to recommend that, in the treatment of fever, the temperature should not be reduced, lest the destruction of microbes be arrested ; few of us will feel inclined to treat our patients on that basis at present. The whole subject, however, is fraught with absorbing interest and importance. The careful perusal of the Croonian lectures alone for the past two years fills us with admiration for the workers and teachers, and makes us long for more truths and further developments in this vast field of enquiry. Enough has already been done to show us that the time may not be far distant when therapeutics shall become a fixed science, so that the skilled physician may with certainty, under favorable conditions, arrest the progress of many diseases, particularly those so often fatal and now known as self-limited. Foremost among all, because of its ever presence and unrelenting fatality, is *tuberculosis*, clinically familiar to each of us, and the cause of about one-seventh of the deaths throughout the world produced by disease. In bringing this subject before your notice, it is not with the intention of going into its history, nor with the hope of expounding new discoveries, but to draw your attention to the nature of the disease and our duty in regard to its manangement. When, in 1882, Koch demonstrated to the world the contagium vivum of tuberculosis, it was felt that at last chaos was being reduced to order ; and when he proved that cultivated bacteria were capable, by inoculation and inhalation, of transmitting the disease, the mystery of tuberculosis was removed, and the great moun-

tain that blocked the way was reduced to a hill that might be climbed. Feeling that I must be brief, and in order to condense what I have to say, I shall make the following statements :

1. Koch's bacillus is the ever-present and irrefutable witness of tuberculosis.
2. So far, no difference has been discovered between the human bacillus and that of the lower animals.
3. It is capable of direct transmission, in the human being and in lower animals, from parent to offspring.
4. It is communicable from man to man.
5. It is also communicable among the lower animals.
6. It is communicable from man to the lower animals.
7. It is found in all the domestic animals, more particularly among the bovine race.
8. It is communicable from animals to man.

That the bacillus is always present has been demonstrated by so many experts since Koch's announcement, that further proof is unnecessary. On the question of heredity, Dr. Johnc of Dresden gives the most conclusive evidence. He found an eight-months foetus, taken from a tuberculous cow, to be affected with the disease. The placenta and uterus showed no visible signs of the disease, but in the lower lobe of the right lung a tubercle as big as a pea was detected, containing the characteristics of the disease. The bronchial glands and also the liver were affected, and microscopical examination revealed the tuberculous bacilli. In the child the tuberculous germ first appears under the name of scrofula. This is nothing but a particular form of tuberculosis, all of whose manifestations contain Koch's bacilli. Sometimes, indeed oftener than in the lungs, the tubercular disease shows itself in children in the brain or the intestines, producing meningitis or enteritis. We know, also, since the curious researches of Landwizy and Martin, that the placental blood contains the germs of tuberculosis. The inoculation of that blood produced tuberculosis as if tuberculous matter itself had been injected. That the disease is transmitted from man to man cannot be doubted, though circumstances make direct experiment impossible. Yet the many instances in which a tuberculous husband

has affected a non-tuberculous wife, and the not infrequent instances in which the children of non-tuberculous parents successively become the victims of the disease, render further proof on this point almost unnecessary. There is a great deal of convincing evidence in favor of the next assertion as to its communicability among animals. The histories of several well observed outbreaks among herds are highly suggestive. At the State College Farm, at Orono, in Maine, in the autumn of 1885, a cow was attacked with a husky cough, which increased in severity, and becoming much emaciated, she was killed about the last of January, when her lungs were found to be badly diseased. About the same time three others were affected with a slight husky cough, and by the end of February most of the animals in the herd commenced coughing almost simultaneously. The whole herd was ordered to be slaughtered, and an examination made by Drs. Michener and Bailey revealed the fact that they were nearly all affected with consumption. There are several familiar examples showing its communicability from man to the lower animals. Hens, by eating the sputa of a tubercularized patient, have become tubercular. Koch fed guinea-pigs on dried tubercularized sputa which had been kept for two, four and eight weeks, and in each instance tuberculosis was induced. Brush fed hens on tubercularized lung, and soon they became diseased. It has lately been noticed that the disease prevails chiefly among cows, and this to the human family, if it be communicable, is of vital importance. Considering that beef, milk, butter and cheese enter so largely into our dietary, we may well be dismayed at such a contemplation. Dr. Brush of Mount Vernon, N.Y., in a paper read before the New York Medical Academy in February, 1889, says that after several years of close study of the affection, and consulting all accessible statistics and the habits of the people where the disease prevails, the only constantly associated factor is found, in his opinion, in the inbred bovine species, without any regard to the social position of a community, its geographical habitation, terrestrial or atmospheric condition. He says if a community *is closely associated with inbred cattle tuberculosis prevails*. Though Dr. Brush produces an enormous quantity of

evidence in support of his theory, some of which is very striking, it is not quite convincing. We might ask him, for instance, why the disease prevails among our North-West Indians? They have no cows! Yet that it does prevail among cows is undoubtedly the case; the circumstances of their surroundings favor the development of any such predisposition. Often kept in close stalls under the impression that the greater the amount of heat the greater the quantity of milk, fed on all sorts of swill, and sometimes allowed to remain in these places for years till their hoofs grow too big to allow of locomotion. The bacillus has been found over and over again in the milk of tubercular cows, though only where the udder is affected with tubercular disease. It is an undoubted fact that the close inbreeding of cattle favors the development of tuberculosis. The steer that took the prize at a recent exhibition in Paris was found tuberculous.

Is the disease communicable from the lower animals to man? This is *the* important question in connection with this subject, and though it has not been proved with certainty, yet, as the bacillus of man has been demonstrated microscopically to be the same as that of the lower animals, and as the disease it produces in each presents the same clinical features, even obeying the same laws of heredity, we must believe they obey the same laws of contagion. We know the disease is capable of being communicated to the lower animals through the ingesta and by the inhalation of divided particles of dried sputa; and we know it is readily transmitted by inoculation. Considering that the chemical and physiological conditions of domestic animals and man are sufficiently alike to afford to the bacillus the same means of cultivation, we should certainly adopt every possible method of protecting the human family against such a source of evil. Physicians and veterinarians must unite to battle the common enemy. Professor Ferland, of the Massachusetts Agricultural College, in an exhaustive paper, warns the community that the disease is intercommunicable between man and animals, *contagious* as well as *hereditary*, and is conveyed by using, for food, the milk or meat of diseased animals. In cases mentioned, he found, in public markets, that more than half the carcasses showed signs of

disease. Tuberculosis among cattle is on the increase on this continent. In many of the States of the Union careful investigations are being made, and I have no doubt efficient legislative action will soon be adopted to meet the necessities of the case. In Canada it is not very prevalent, but, according to Mr. McEachren and other well-known veterinary surgeons, it is on the increase. Cases are reported from the Government farm in Guelph. A herd had to be destroyed in Nova Scotia. Other cases are reported from New Brunswick. I have no doubt it exists in all the provinces of old Canada, but from ignorance of the symptoms it produces, and insufficient inspection of live stock and butchers' meat, we are not made aware of it. I have not heard of any cases in Manitoba or the North-West Territories. It would be interesting to know if the disease is capable of development in this aseptic atmosphere. The Canadian Government has not been blind to its responsibilities in this matter. In 1887 a committee was appointed by Parliament to investigate the subject and a number of pertinent questions were issued to veterinary surgeons throughout the country relative to the prevalence of tuberculosis among cattle, which brought back replies sufficient to remove any doubt as to the existence of the disease. Last year questions were put by the same committee to medical practitioners as to the communicability of tuberculosis from animals to man; 1480 were addressed and only 215 replied, and these replies threw little or no light on the particular subject of enquiry. If these questions were first brought before the different medical associations and freely discussed before being submitted to individuals, I am satisfied more satisfactory information would be gained.

At the Congress on Tuberculosis held in Paris in July, 1888, it was unanimously conceded that the milk of tuberculous cows was dangerous for use. Some held that it was only so when the udder was affected with tubercular disease; but as it is impossible for milkers and dairymen always to diagnose this, they unanimously recommended that all milk should be boiled. There was some difference of opinion as to the use of meat of tuberculous cows. Dr. Trocart held that if the disease is localized the

flesh does not contain any bacilli. Dr. Arlving contended that in his experience virulent bacilli existed in the muscles of tubercularized animals in one-fifth of the cases. He desired to see tuberculosis inscribed among the infectious diseases, and thought the flesh of tuberculous animals should be prohibited as food till means were found to render it harmless. He suggested the creation of a permanent committee to carry out, in cities and towns, the realization of a complete sanitary organization. It was learned that in Paris, Brussels, Constantinople and other large cities the meat is condemned if the disease is generalized and the cattle emaciated. After a lengthened discussion, which brought out a great many interesting facts in relation to the etiology of tuberculosis and its communicability, the following resolution was voted upon and carried almost unanimously: "It is necessary to carry out, by all possible means, including indemnification of those interested, the general application of the principle of seizure and total destruction of all meat coming from tuberculous animals, whatever may be the gravity of specific lesions found in those animals." Chauveau, president of the congress, suggested that simple instructions should be printed and widely distributed throughout the cities and towns and in the country, explaining the danger of drinking tuberculous milk and eating tuberculous meat, and the ways of rendering the meat inert. Though much has yet to be learned on this vital question, enough proof has already been adduced to warrant the adoption of active measures towards the extermination of tuberculous cattle. Is not the Government called upon to deal with tuberculosis as it does with pleuro-pneumonia?

Gentlemen, I fear I have already shown too little consideration for my audience. Before concluding, however, I must say a word of welcome to our visitors. In the name of the Canadian Medical Association I beg to offer them the right hand of good fellowship. Though most of us have travelled from two to three thousand miles to attend this meeting, we do not for a moment forget that we are still in our own country. It is our earnest desire that they shall be one with us in everything, not only in this room, where we hope to hear from them on matters of pro-

fessional interest and in discussion with full member's privileges, but on our further journeyings and in our social life. We cannot offer them the hospitality of our homes, but we can give them a warm welcome and earnest expression of the hope to see them again. We feel honored by the presence of so many eminent men from the United States, and can assure them that the dotted line, of which we heard so much the other night, does not separate them from us. We hope, in all seriousness, this visit may be one of thorough enjoyment, and that their personal experience and the information they may gain of this section of Canada may enable them to regard it as a health resort deserving of the highest consideration.

In thanking you for the great honor you have conferred on me by electing me your presiding officer for the ensuing year, I need not tell you how highly I appreciate this mark of your esteem and confidence. I am painfully conscious I have done nothing to merit the one or the other, and were I not consoled by my desire to perform the duties of the office to the best of my ability, by my loyalty to the Canadian Medical Association, and by the knowledge I possess of your forbearance and generosity, I should be inclined to insist on immediate retirement or retreat.

Retrospect Department.

QUARTERLY RETROSPECT OF SURGERY.

BY FRANCIS J. SHEPHERD, M.D., C.M., M.R.C.S., ENG.

Surgeon to the Montreal General Hospital; Professor of Anatomy and Lecturer on Operative Surgery, McGill University.

Trephining for Cerebral Hemorrhage.—At a meeting of the Clinical Society of London, held April 12th, 1889, Mr. Herbert Allingham read a paper on a case of cerebral hemorrhage in which trephining was done. The patient was shown. He was a man, aged 40, who was admitted into the Great Northern Hospital in the following condition: He had fallen off a tram-car while semi-intoxicated and was taken into hospital. When examined he complained of pain in the left shoulder, but there were no external signs of injury to the head. Next morning, Dec. 8th, he was rather drowsy, and complained of headache on the right side of his head. The pupils were equal and reacted to light. There were no signs of paralysis, and no vomiting. On the evening of Dec. 13th his breathing was noticed to be rather labored and stertorous, and he became more drowsy and apathetic, not noticing things about him. At 6 A.M. he had a convulsion. It began in the muscles of the left side of the face, the mouth being drawn upwards, and the eyelids moved in clonic spasm. The muscles of the neck were next affected, the chin being drawn towards the right shoulder. Subsequently the left arm and leg passed into a state of clonic spasm. The eyes were not noticed to deviate to either side. Urine acid, no albumen or sugar, and was passed unconsciously. There was no optic neuritis. The fits recurred at frequent intervals. On Dec. 14th Mr. Allingham decided to operate. A curved incision was made, ascending from the external angular process to the malar process, and a large semi-lunar flap turned down so as to expose the temporal muscle; the muscle was divided from its origin and also turned down; a crown of bone was then removed over the right fissure of Rolando—about 2½ inches behind and one inch and a half above the external angular process. The posterior branch of the middle meningeal artery was exposed. The

artery and dura mater were found intact, but the dura mater bulged and did not pulsate. It was divided, together with the artery; a large blood-clot was exposed, and about three ounces of black clot removed by the finger and irrigator. On inserting the finger, the brain was felt to be compressed and the cavity extended forwards and backwards as far as the finger could reach. The pia mater was intact, except at the right frontal lobe, where the cerebral hemisphere was felt to be lacerated and soft. The cavity was well irrigated with carbolic solution (1-40), which came out clear. One catgut suture was introduced into the dura mater and two drainage-tubes inserted into the skull, one going upwards and the other downwards to its base; the ends were brought out through a hole made in the lower part of the skin flap. The wound was dressed with carbolized gauze. Next day the patient had a slight fit, confined to the face. On Dec. 16th he was quite rational and began to move the left leg. On Dec. 17th paralysis had gone; he moved both arm and leg well and was quite sensible. From that date he made an almost uninterrupted recovery. On Feb. 18th he left hospital quite well. Mr. Allingham was of opinion that the case was unique, as it was one of cerebral hemorrhage and not due to hemorrhage between the skull and dura mater.

Trephining for Spinal Injury.—At a meeting of the Medical Society of London, held April 8th, 1889, Mr. Herbert Allingham (*Lancet*, April 20th, 1889) read a paper on fracture of the spine treated by trephining. Two cases were reported. The first was injured by a fall of forty feet, and was completely paralyzed, having lost all sensation from a point on a level with the ensiform cartilages. As he did not improve a month after the accident, Mr. Allingham trephined the spine, making an incision about ten inches in length over the 5th, 6th and 7th vertebræ. The muscles were then turned aside and it was seen that the laminæ of the 6th vertebra was very badly fractured and depressed. The spinous processes and laminæ of the 5th, 6th and 9th were removed with cutting bone forceps, and the cord was exposed for about four inches; it was rather bruised. The theca was not opened, and the operation

took one hour and a half. Sutures were put in the skin only ; no deep sutures were used. A large drainage-tube was inserted and antiseptic dressings applied. The wound healed in ten days, and for a while improvement took place, the line of sensation recovering to within an inch of the umbilicus, but since then it had remained stationary. In the second case the patient had fallen from a house and was paralyzed from a line seven inches above the umbilicus six days after the accident. No improvement occurring, the spine was trephined, and the spinous processes and laminæ of the 3rd, 4th, 5th and 6th vertebræ were removed. The cord was found crushed, so the dura was opened. In two weeks the wound had healed. The patient died seven months after the accident of bedsores and cystitis ; and at the autopsy the cord was found to be almost divided into two parts, both ends tapering down to a fine point. Mr. Allingham drew the following conclusions from these cases :

(1) That by trephining, it was evident from these cases that inflammatory ascending changes were prevented.

(2) That no bad symptoms followed from the opening of the spinal dura mater and allowing the cerebro-spinal fluid to escape.

(3) The operation, though tedious, is not a difficult one to perform, and does not in any way diminish the chance of recovery.

He suggested that in all cases of spinal injury followed by paralysis and loss of sensation, trephining should be done at the end of a week if the patient showed no sign of improvement, so that if symptoms were produced by pressure of blood on displaced bone they might be removed before ascending and descending changes came on.

In the discussion which followed the reading of the paper, Dr. Beevor alluded to the difficulties that arose in consequence of the fact that the anæsthesia began much lower down than the seat of injury would lead one to suppose. He said that the question as to the points in the cord at which the sensory fibres were given off required elucidation.

Mr. Shattock has lately been working at this point, and has arrived at fairly definite conclusions as to the origin of the sensory nerves.

Mr. Wm. Thorburn of Manchester publishes a short note on *Spinal Localizations as indicated by spinal injuries in the lumbo-sacral region.* (*Brit. Med. Jour.*, May 4, '89.) From an analysis of a number of cases of spinal injury, certain definite conclusions as to the functions of the various nerve roots have been published in the form of a table.

Subdural Division of Posterior Roots of Spinal Nerves.—Mr. W. H. Bennet, at a meeting of the Royal Medical and Chirurgical Society of London, held April 23rd, 1889, read a paper on a case in which acute spasmodic pain in the left lower extremity was completely relieved by subdural division of the posterior roots of certain spinal nerves, all other treatment having proved useless, and in which death resulted from sudden collapse and cerebral hemorrhage on the twelfth day after operation, at the commencement of apparent convalescence. A laborer, aged 45, was admitted into St. George's Hospital, under Mr. Bennet's care, August 29th, 1888, suffering from acute pain, sometimes spasmodic, in the left leg, apparently due to syphilitic thickening of the tibia of nine years duration. The patient was submitted to the following treatment without relief, viz., (1) the administration of drugs, *e.g.*, iodide of potassium, mercury, anodynes and narcotics; (2) trephining and linear osteotomy of the thickened tibia; (3) amputation through the knee-joint; (4) stretching of the sciatic nerve; (5) resection of two inches and a half of the same nerve. By December 8th the patient's condition was much worse; he had lost strength and was much emaciated, the pain was much worse, the spasms being violent and frequent. By Dec. 23rd it was clear that death must soon ensue if the suffering could not be relieved by some surgical proceeding. Mr. Bennett therefore proposed to lay open the spinal canal, examine the membranes and, if necessary, the cord itself over the region of the lumbar enlargement in order to see whether any lesion existed. In the event of this exploration proving negative in result, it was proposed to divide the posterior roots of these spinal nerves, the distribution of which seemed to correspond to the areas over which the pain was felt. The operation was performed Dec. 24th, and the pos-

terior roots of the 1st, 3rd, 4th and 5th lumbar, and 1st and 2nd sacral nerves being divided. The patient was entirely relieved of his pain. For two days the patient's condition was critical, and later there was troublesome diarrhoea. By January 3rd the wound had healed, except a small sinus which discharged cerebro-spinal fluid. On the 4th, patient felt discomfort in his head, vomited, became collapsed, and died in a few hours. At the autopsy a large clot was found over the left occipital lobe of the brain. The cord was healthy, but opposite the 7th and 8th dorsal vertebræ was a well-defined thickening of the arachnoid.

Prof Korteweg (*Archiv für Klin. Chir.*, Hft. 4, '89), in an interesting article on *Statistical Results of Amputation of the Breast for Cancer*, shows from the tables of Winiwarter, Oldekop, Sprengel, Hildebrand and Küster that recurrence is more frequent in cases operated on early, and that the whole length of life after operation is shorter. He explains this by stating that the more malignant the cancer the earlier it is operated on the earlier it returns. In these cases the glands are usually affected early. He states that the great majority of the cases of return occur in the cicatrix and seldom in the glands of the axilla. In the more malignant and rapid cases the glands are early affected. In the more benign cases, where the glands have not become involved, extirpation of the breast alone has been followed by a comparatively large number of cures.

Some years ago, according to statistics, a much larger number of cases existed of simple cancer of the breast without involvement of the axillary glands. In 1870, in 60 cases of breast cancer, there were 24 where the axillary glands were not affected; in two only of the 24 cases was there a permanent cure. At present, in 60 cases, only 10 are without involvement of the glands, and out of these, two are permanently cured. He explains this by the fact that now the glands are removed when they are not actually involved but merely inflamed, when formerly they would not have been removed. Hence the result is the same. The 14 additional cases which were regarded as simple mammary cancers would now, because the glands are felt to be slightly enlarged when the axilla is opened, not be re-

garded as simple, hence there apparently existed a larger number of cases where the glands were not involved than at present. Again, formerly very severe and advanced cases were not operated on as at present. He urges strongly the thorough removal of the growth locally as well as the axillary glands, and favors early operation in all cases.

On the Causes of the Local Recurrence of Cancer after Extirpation of the Mammary Gland.—Dr. Heidenhain of Berlin, at the recent congress of the German Society of Surgery in Berlin, read a paper on the above subject. (*La Semaine Médicale*, May 1, 1889, and *Medical News*, June 1, 1889.) He had made a histological examination of eighteen cases of cancer of the mammary gland for primary cancer. In all cases in which there had been a recurrence he was able to make out by microscopical examination that fragments of cancer had remained in the wound after operation. If it is easy to see infiltrated lymphatic glands, it is not easy to see by the naked eye if the tumor has been completely removed. In the eighteen cases which he examined, he had tried to ascertain whether in the section of the tumor which was in contact with healthy tissues he would find healthy or diseased tissues; on the presence of healthy or diseased tissue would depend the recurrence of the disease. He had in this manner examined several fragments of each tumor; in twelve cases he had found the tissues infiltrated with epithelial rays, and out of these twelve cases there had been eight recurrences, one death, one patient had disappeared, and two others remain well. In six cases he had found only healthy tissues, and in those six cases up to date the cancer has not reappeared. In cancer of the breast, the epithelial extensions follow the lymphatic vessels and extend often to the pectoral aponeurosis; it is therefore most important to take away the aponeurotic covering of the pectoral muscle, and even to cut into the muscle so as to be sure that the lymphatic vessels, which cross the aponeurosis perpendicularly, are not infected. Dr. Küster has been in the habit of taking away this aponeurosis, because of the bad prognosis presented by cancerous tumors which are adherent to the pectoral aponeurosis. In Von

Volkmann's practice, out of sixty-five cases in which the tumor was adherent to the pectoral aponeurosis two were cured, and in all the others the disease has returned. Out of twenty-one cases of the same kind operated on by Küster but a single one is still alive, and she had a return of the trouble; hence when the tumor is adherent, it is well to take away a good part of the muscle and to clean it thoroughly so as to be sure that the whole growth has been removed.

Statistics of Cancer of the Breast.—Dr. Fink of Prague has collected the histories of 194 cases of cancer of the breast treated in Prof. Gussenbauer's wards from 1878 to 1886, tracing after histories to the end of September 1888. He found that at the 41st year the frequency of cancer suddenly increased, slowly rising towards the age of 60; 128 of the cases occurred between 40 and 60, 38 between 60 and 80, and 28 between 20 and 40. Activity of the sexual functions had a marked etiological influence, especially in regard to long periods of activity of the functions of the mammary glands; 72.1 per cent. of all cases had borne children, 62.8 per cent. had suckled them. In 22 per cent., mild or severe inflammatory disease had attacked the affected breast. In only 12.7 per cent. could a clear history of injury or prolonged mechanical irritation be obtained. Direct hereditary predisposition was only substantiated in 8 out of 194 cases. Both mammæ were affected with equal frequency. The disease was found to begin in the superior external segment of the breast in a very large majority of the cases—in 104 out of 171 which were carefully and early inspected. In 53 cases, metastases were detected on an average of twenty-five months after the beginning of the disease. These were situated in the pleura, lungs and liver. One hundred and fifty-three of the cases underwent amputation of the breast with clearing out of the axillary glands; the mortality was 3.3 per cent. Ninety of the cases died of recurrence of the cancer, but Dr. Fink states that most of the women did not apply for relief until the disease was far advanced; 21.6 per cent. remained free from the disease for two years, and 16 per cent. for three years. The patients who had undergone operation lived seven months longer than those

whose breasts were not removed.—(*British Medical Journal*, June 1, 1889.)

Dr. J. Collins Warren, in an article on the *Diagnosis and Treatment of Cancer of the Breast* (*Boston Med. and Surg. Journal*, April 11, '89), says that the most important part of the operation for removal of cancer of the breast is the careful dissection of the fascia from the pectoral muscle, for it is in this tissue that capillary lymphatics are concealed, which form hiding places for the outposts of the disease. Careful attention should also be paid to the margin of the pectoral muscle; not only should the fascia which covers the axilla be dissected off from it, but its lower border should be well freed from fat and connective tissue. The axilla is best opened by a cut through the skin along the edge of the pectoralis, until we come to the edge of the coraco-brachialis; continuing down on this muscle a short distance with the knife, the skin and superficial fat drop away sufficiently to disclose the great vessels lying beneath a thin fascia; opening this fascia backward along the line we have come exposes the contents of the axilla, and especially the branches of the vessels, which can now be secured. A pyramidal mass of fat is now dissected out, the apex reaching sometimes to the clavicle, the base frequently extending deeply into the subscapular group of muscles. The glands which lie near the clavicle will have to be removed separately, and can best be enucleated from the neighborhood of the vessels by the finger. If they are numerous, the pectoralis can be separated on the line selected for the ligature of the axillary artery below the clavicle, and the glands and some of the loose tissue can then be readily removed.

Excision of the Scaphoid for Flat-foot.—Mr. Richard Davy (*Lancet*, April 9th, 1889) says that this static deformity is so commonly met with in debilitated subjects as to suggest many points of consultative interest. He referred to Prof. Ogston's paper read before the Medical Society of London in January, 1884, on *Flat-foot and its Cure by Operation*, which recommended the excision of the astragalo-scaploid articulation in a wedge-shaped manner and pegging the scaphoid and astragalus together, and stated that Prof. Ogston's paper led him to again

investigate the subject. The result was that he found that excision of the scaphoid fulfilled all the requirements necessary and resulted in giving the patient a useful foot. Should any difficulty be experienced in removing the scaphoid, the easiest plan is to chisel the bone in a wedge-shaped form and then carefully clean the bone out, leaving the cartilage on the head of the untouched as well as the cartilage on the cuneiform bones. The foot is then wrenched inwards so as to press back the astragalus into place, and make the cartilage of the astragalus touch the cartilages of the cuneiform bones. No little spicula of bone must be left behind between these two opposing sets of cartilages. The utmost cleanliness, of course, should be observed, and after the first stage of inflammation is passed a plaster of Paris splint is advocated. The operation is reserved for advanced and rare forms of club-foot only, where bony deformity and dislocation have occurred, and the distortion cannot be reduced by the manual efforts of the surgeon.

Mr. Golding Bird (*Lancet*, April 9th, 1889), in a paper on *Operations on the Tarsus in Confirmed Flat-foot*, says there is a class of cases where the arch is so fallen that a convexity rather than a flatness takes its place, due to two tubercles projecting downwards the scaphoid and head of the astragalus; along with these objective symptoms there is a most wearying and constant aching under the external malleolus. The pain is always present on standing, and after a few hours it becomes a physical impossibility to stand any longer. The continued deep-seated pain the author declares to be due to the fact that, since the arch of the foot is sunken and its piers are now wider apart on the inner side of the foot, a corresponding crowding or mutual pressure of the bony structures forming the outer or supporting edge of the sole takes place, which mere reposition of the foot will not improve. It is in these cases tarsotomy in some form is called for. Mr. Bird operated on four such cases in 1878-80. All were between 12 and 17 years of age. In two the scaphoid bone was removed, and in the other two the scaphoid and head of astragalus. In all the results were good; all were relieved of pain, but in only one was the arch restored.

Inflammation of the Seminal Vesicles.—Every surgeon has met with cases of supposed prostatitis and cystitis which resist all treatment. Frequent and painful micturition characterizes these cases, and they go from one surgeon to another seeking relief but not obtaining it. Such cases are always obscure and most commonly follow an attack of gonorrhœa. An explanation of this condition is offered by Mr. Jordan Lloyd. In an article published in the *British Medical Journal* of April 20th, 1889, he calls attention to the part played by inflammatory disease of the seminal vesicles in these obscure cases of vesical prostatitis one so often meets with. He considers "seminal vesiculitis" analogous to Fallopian salpingitis, and states that this is dependent on similar causes. The disease is usually secondary to simple or gonorrhœal urethritis, the latter constituting the most frequent cause. It may also follow simple urethritis due to the passage of a sound, urethral stricture, or coitus with a woman suffering from leucorrhœa. It is also common as a complication of gonorrhœal epididymitis. The severe type sometimes, but not frequently, ends in suppuration. The tendency is to resolution, but if suppuration occur, pus may burrow laterally into the ischio rectal fossa or into the deep circumrectal tissues, or it may escape by the ejaculatory duct, or the abscess may rupture into the bladder or rectum. The disease sometimes runs a chronic course, and results in cystic enlargement of the vesicle due to obstruction of the duct. In one of Mr. Jordan's cases the cyst contained ten pints of fluid. The symptoms of "seminal vesiculitis" are essentially those characteristic of vesical irritability, inflammation of the neck of the bladder, and of acute prostatitis, with the additional symptoms of almost constant painful erection of the penis. Nocturnal emissions are common, as is also blood in the seminal fluid. Physical examination per rectum reveals the presence of an elongated tumor, situated above the prostate, at the base of the bladder, running obliquely upwards and outwards. The presence and size of this tumor are made more manifest to the exploring finger if a large metallic sound is passed into the bladder and moved from side to side over the tumor. In the acute form, heat, tenderness and swell-

ing are felt over the prostate, and if accompanied by the symptoms of vesical irritability, with no urinary evidence of cystitis, this sign should make the diagnosis certain. Mr. Lloyd recommends incision through the perineum rather than through the rectal wall for evacuation of pus when suppuration occurs. He urges digital examination of the rectum in all cases of gonorrhœa or epididymitis which present vesical symptoms, and believes that in most of such cases this disease will be found.

The subject is one of great interest to surgeons, and it is hoped that more light will be thrown on the subject by investigations which are sure to follow the publication of Mr. Lloyd's paper.

Surgical Treatment of Pulmonary Cavities.—Mr. J. D. Harris (*Brit. Med. Jour.*, May 4, 1889) reports the case of a gentleman, aged 33, who, in 1887, suffered from abscesses of kidney, which broke in four or five places in the loin, and from which he was convalescent, when in March, 1888, he was seized with a rigor, and a pneumonia of the left lung rapidly developed. The pneumonia ran a very unfavorable course, and instead of undergoing resolution, broke down into abscesses. In May he was rapidly emaciating, and had an incessant hacking cough with considerable expectoration, which, towards the end of the month, became foetid. There were now all the physical signs of a cavity of the lung posteriorly, just below the angle of the scapula, on the inner side. By the end of June he was in a highly critical condition and was much run down. Operation was advised and consented to. On July 2nd, without any anæsthetic, an incision was made through the skin at the lower border of the intercostal space, which ran through the centre of the area of loudest pectoriloquy. An aspirating needle was introduced, and pus flowed through the tube; the tissues were now cut through down to the pleura; this was then cut through, and following the aspirating needle the lung was incised. A silver tube was introduced and afterwards a large gum-elastic catheter. Considerable discharge came away. On account of the foetor the cavity was daily syringed out with a weak solution of carbolic acid. The tube was kept in a month, and then a rubber

tracheotomy tube was substituted. The patient went on well. His cough ceased and he increased in weight. By Christmas, 1888, only one small renal fistula existed, and the pulmonary fistula had completely healed.

Renal Surgery.—The progress of abdominal surgery has been especially marked of late by the increasing number of records of operations on the kidney. Since Mr. Thomas Smith, twenty years ago, advocated the removal of a renal calculus by operation, and Professor Simon proved, after making a series of experiments on dogs, that the removal of one kidney did not necessarily produce acute or chronic disease of its fellow, a whole series of operations on the kidney have come into vogue. There are nephrorrhaphy, or sewing up a floating kidney by its capsule to the parietes; nephrotomy, or incision of the kidney; and, lastly, nephrectomy, or removal of the kidney entire. Notwithstanding the truth of Simon's theories, and the encouraging results claimed by several surgeons, nephrectomy must still be considered a very serious undertaking.

There is a great difference of opinion amongst the few really experienced operators as to the right manner of performing nephrectomy. Some, like Mr. Lucas, advocate the lumbar, and some, like Mr. Thornton, the abdominal incision. An instructive discussion took place at a meeting of the Royal Medical and Chirurgical Society on April 9th, 1889. Mr. Lucas considered it necessary to estimate for some time the amount of urea excreted daily. If this were found to be less than half the normal quantity, then nephrectomy, he maintained, would be a very serious operation. Mr. Knowsley Thornton said that if a large suppurating kidney be treated medically, not surgically, the labor thrown upon its fellow would be possibly greater than that entailed by the operation; he also quoted one of his cases where both kidneys were diseased, yet when one containing twenty pints of pus was removed, the operation was borne well. To form anything like a correct estimate of the excreting power of the healthy organ in cases where the diseased kidney is not absolutely obstructed is very difficult in actual practice. Dr. Tschmann's ureter forceps, for temporarily blocking the orifice

of one ureter for a time, may prove of service, but many find them difficult to apply. Catheterization of the ureter, practised by Newman of Glasgow, and others, requires much special training. Lastly, physicians, physiologists and chemists have possibly more to discover as to the import of each constituent of the urine. As yet, much in respect to calculating the powers of a healthy kidney when its fellow is diseased is theoretical or empirical.

Separation of the Lower Epiphysis of the Femur.—In an interesting article on this somewhat rare accident by Mr. Mayo Robson (*Annals of Surgery*, Feb. 1889) the meagre description given by surgical authors is alluded to. He does not think the accident is as rare as the standard works on surgery would lead us to believe. In the museum attached to the Yorkshire Medical College two interesting specimens exist. In both, amputation was performed for gangrene. The epiphysis lies with its articular surface forwards, and the lower end of the shaft of the femur (the diaphysis) is directed backwards and presses on the popliteal vessels; the gastrocnemius is attached to the diaphysis. The second specimen was from a primary amputation of the thigh performed by the late Mr. Samuel Hey on account of a compound diastasis of the lower epiphysis of the femur. In this case the lower end of the diaphysis projected through the wound in the popliteal space, whilst the epiphysis was directed forwards. Mr. Robson relates a case which came under his own observation. A boy, aged 16, was kicked by a horse on the outer side of the left knee-joint. When admitted to hospital there was considerable swelling with fluctuation around the knee. The leg and foot were enormously swollen. The foot everted and the leg rolled outwards. No pulsation could be felt in the tibial arteries, the circulation being interrupted by the sharp edge of the lower end of the diaphysis of the femur, which was pressing on the popliteal vessels and making the skin bulge in the popliteal space. The joint was in a state of semi-flexion, and extension was most painful. A marked depression was felt immediately above the patella, beneath which could be felt a movable mass with rounded edges. There was one and a half inches of shortening. Under

ether the leg was fully flexed and the parts forced into proper position, then the leg was extended and placed on a McIntyre splint. Pulsation at once returned in the tibial vessels and the engorged vessels emptied themselves in a few hours. Two months after the leg could be fully flexed and there was no deformity. Mr. Robson mentions two other cases in the practice of his colleagues, in one of which excision was performed, and in the other a good result followed reduction. In most cases the diagnosis is not difficult. The shortening of from one to two inches, the projection of the lower end of the diaphysis into the popliteal space, the displacement of the epiphysis in the front of the femur, and the interference with the circulation of the leg, form a group of symptoms which are not easily mistaken. The prognosis is serious unless the injury be diagnosed and treated at once; the dangers arise from the pressure of the lower end of the diaphysis on the popliteal vessels, interfering seriously with the circulation of the leg and producing great œdema or gangrene. In one case reported secondary hemorrhage ensued.

Mr. Robson draws attention to the fact that this injury differs from transverse fracture of the lower end of the femur; in transverse fracture the upper end of the lower fragment projects into the popliteal space, whereas in diastasis the lower end of the upper fragment projects into the space. The treatment is reduction under ether, and if reduction is impossible, excision. I have seen two cases of this accident. In both the accident had occurred several years before, and the patient had good use of the limb. One case under the care of one of my colleagues, the diaphysis had been displaced outwards and caused a remarkable obliquity and deformity of the lower end of the femur which interfered with the lad's progression. The limb was straightened by Macewen's osteotomy. The other case was kindly shown to me by Dr. Elder of Huntingdon. A boy, aged 7, fell and injured his leg. When the doctors arrived they found the lower end of the femur projecting through the flesh on the outer side of the popliteal space. They advised amputation, but this being refused, and failing to reduce the protruded bone, they sawed off two inches. The boy ultimately did well, and was able to go

about in three months. Now (ten years after the accident) he has perfect use of his leg, and the knee has as wide a range of motion as the other. He walks with only a slight limp, and measurement gives some two inches of shortening.

Extirpation of Goitre.—Dr. Eugene Hahn (*Archiv f. Klin. Chir.*, bd. 36), in a paper on a *Method of Partial Removal of Goitre without Tamponade or great loss of Blood*, says this method has been carried out on several patients affected with struma. A median incision is made from the incisura jugularis to the cricoid cartilage; to this is added a lateral incision dividing the sterno-hyoid and sterno-thyroid muscles, and then the superficial veins are ligated. In this way the whole gland is exposed. The left upper lobe is then released and lifted forward, the left superior thyroid artery tied; the inferior thyroid is clamped, and the middle artery tied by first exposing it in lifting forwards the gland and then passing a ligature about it. The same is done on the opposite side. After securing these vessels the capsule is divided in its whole extent, avoiding visible veins, and the glandular tissue is drawn forward with a hook. It is thus possible to remove sections of the gland with scissors so as to leave very little behind. There is very little hemorrhage. The inferior thyroid arteries are only secured by a clamp having a weak spring; this is done to avoid securing the recurrent nerve in a ligature. If disturbance of speech follows the operation, the clamps can be immediately removed. A weak clamp will control the circulation, but not injure the nerve. The wound should be stuffed with iodoform gauze, the clamps removed at the end of twenty-four hours, and secondary sutures applied.

Resection of Intestines.—At the meeting of the Edinburgh Medico-Chirurgical Society, held Dec. 5th, 1888, Mr. Cotterill reported a successful case of *Resection of a Gangrenous Transverse Colon*. The patient, a very stout woman, aged 38, had been subject to umbilical hernia for seven years. When seen by Mr. Cotterill she was seven months pregnant. The rupture was a bright red and angry-looking prominence about 14 inches in diameter. The patient vomited coffee-colored fluid mixed

with blood. The sac was opened and found to contain a large coil of gangrenous transverse colon, much sloughy omentum and free from fæculent matter. The gangrene appeared to be due, not to strangulation, but to pressure of structures in the sac between the pregnant uterus below and a firm binder which had been worn above. Fifteen inches of colon were cut away and the ends of the gut stitched to the edge of the skin-wound. Three days after the operation the woman gave birth to a child. A few months later an operation was performed for uniting the cut ends of the intestine. The upper end was first ligatured to avoid the escape of fæces. Traction was then made on the two ends until normal gut, covered with peritoneum, protruded sufficiently for resection. Instead of using a clamp, the operator passed a piece of thin India-rubber tubing through a small hole in the mesentery and round the gut, fixing it there with a pair of catch-forceps. Four inches of the upper segment of the colon and three of the lower were then cut away with portions of the mesentery. As the lower portion had been unused for five months it was very narrow and hard to join to the upper piece. By careful introduction of over 100 stitches, the ends were brought satisfactorily together. Fine curved needles were used, round, not flattened, and threaded with fine Chinese twisted silk, and the Czerny-Lembert suture was employed. The cut edges of the mesentery were sutured together, and the gut returned to the abdomen. The operation took three hours. On the third day fæces passed. In the two operations 22 inches of intestines were removed.

I have space only to refer to the following:—

A Successful Case of Immediate Resection of the Intestine for Gangrene, by Robert H. M. Dawbarn, M.D. (New York *Medical Record*, April 20th, 1889.)

Resection of Gangrenous Intestine occurring in Strangulated Herniæ, and the Report of a Successful Case: by A. J. McCosh, M.D. (New York *Medical Journal*, March 16, 1889.)

Free Division of the Capsule of the Kidneys for the Relief of Nephralgia.—At the recent meeting of the American Surgical Association, held in Washington, May 1889, Dr. McLane

Tiffany read a paper on the above subject. The author had suggested this mode of treatment four years ago. The patient was a married woman, aged 49. Had gonorrhœa and syphilis. Three years ago had a severe and sudden pain in right loin. These attacks occurred at regular intervals, the periods becoming shorter and pain more severe. Blood was seen at rare intervals; pain was characteristic from loin to groin increased by exertion. Pressure over right kidney caused severe pain. No tumor could be made out. Kidney calculus was diagnosed and operation was performed January 12th, 1889. The kidney was reached and incised, and a sound passed into its pelvis and a systematic exploration made, but no stone detected. The capsule was freely slit open for three inches and the wound closed. It soon healed. Since the operation no attacks of pain had been felt. In the discussion which followed the reading of the paper, several similar cases were related, several speakers stated that the relief of pain was often only temporary.

I very much doubt the existence of these cases of nephralgia. In nearly all these cases a stone would be found if thoroughly searched for. It has been my misfortune to cut down several times on the kidneys and fail to find a stone. The kidney was always explored in the usual way by sound, needles, and touch. In some of the cases pain was relieved, in others not. In a case where I cut down on the kidney in November, 1888, I failed to find a stone, the pelvis of the kidney was thoroughly explored with a short-beaked sound and the kidney punctured with needles, also handled freely, yet no stone was detected. The patient made a good recovery and was relieved of his pain for a couple of months, but then it returned with renewed violence, utterly incapacitating him from work. I determined to cut down, and if I failed to find a stone, to remove the kidney. The operation was performed in June, 1889, and the kidney carefully examined as before with sound, needles and by palpation; no stone was felt. It was then freely incised, the finger introduced, and at the upper end was felt a hard body encapsuled or rather floating freely in a separate compartment, the intervening tissue was scratched through with

the finger-nail, and a stone the size of a marble removed. This could not have been detected with a sound on account of the intervening membrane, and it had escaped the needle exploration. It could not be felt at all by the palpation, although the kidney was seized between the finger and thumb and thoroughly examined. I imagine that many so-called cases of nephralgia will, if the kidney be incised, turn out to be cases of calculus. The patient in this case made a good recovery.

Hospital Reports.

MONTREAL GENERAL HOSPITAL.

CONDENSED REPORTS OF CASES IN DR. MACDONNELL'S WARDS.

Typhoid Fever following an unusual course; Antipyrin Rash; Death from Hyperpyrexia.

A young girl, aged 24, of fairly healthy appearance, was admitted into the surgical wards, on July 20th, for the treatment of a small ulcer of the foot, the result of a burn. Four days afterwards there was a very sudden rise of temperature (103°) and violent coughing set in. It was thought that she was attacked with acute pneumonia, but no physical signs were forthcoming. She was removed to the medical wards, where a train of symptoms developed themselves quite unlike those we are accustomed to meet with in typhoid fever. The general condition from the very outset was depressed. The pulse was frequent throughout; the skin cold and clammy, and markedly so when the body temperature was high. There was no prostration of muscular power until the last. She was restless and at times unmanageable, jumping out of bed and being very noisy, but there was no incoherence. Throughout she complained loudly of hunger, and was continually demanding more food. The expression was one of great depression, there was no flush whatever, and the eyes were of a leaden color and sunken. There was no headache or other brain symptom. Optic discs normal. From the first there was profuse diarrhoea, with stools of a decidedly typhoid character—a very important point in the diagnosis. The tongue was raw, but not dry. There was at

first frequent vomiting. No enlargement of the spleen was detected. The pulse was weak and rapid from the beginning; the heart's action feeble. There was throughout the fever a loud ringing cough, which shook the patient and produced much prostration. Slept fairly well. The examination of the urine revealed nothing of importance. At the close of the fever a few rose-spots appeared on the surface of the abdomen. There was no tympanites and no gurgling in the right iliac fossa. The points of interest in this case were: (1) the general character of the disease was unlike that of typhoid fever running to a fatal course; (2) antipyrin (gr. xv) was given on one day when the temperature was 104° at noon. In less than an hour a rash appeared on the chest, spreading rapidly over the chest and abdomen, where it had the appearance of a measles rash. On the extremities it was in patches, most closely set upon the extensor surfaces, and there it was distinctly urticarious and in wheals. At 4 P.M. the rash began to disappear, and was all gone by six o'clock. It seems an unusual thing for an antipyrin rash to appear after such a small dose of the drug and to disappear so rapidly. (3) The temperature took an irregular course throughout, running very high at times and suddenly falling. During the last four days it remained at 103° and 104° , but during her last hours it ran up, and before she died reached $109\frac{1}{2}^{\circ}$.

The autopsy revealed enlarged spleen, ulceration of Peyer's patches, and follicular ulceration of the large intestine.

Typhoid Fever—Antipyrin Rash.

In the case of a girl of 25 years of age suffering from severe typhoid fever, with the temperature for several nights at 105° , antifebrin was given without marked effect, and subsequently antipyrin. The latter reduced the temperature for a time, but after two doses had been taken a rash broke out on the face and neck. Unlike the case above reported, it did not resemble urticaria or measles. The forehead became of a pale red color, like the skin of a new-born baby, and there was slight puffiness of the lids. On the neck the pale red patches were somewhat

discrete. By next morning all the rash had disappeared. Antipyretics were abandoned, when, after two days, the temperature fell to 102° and 101° , and the symptoms improved. The action of antipyrin in producing rashes seems to be very common, though so far I have seen but these two cases. The journals contain many such records. The rashes are described as measly, erythematous, or urticarious.

Malignant Endocarditis with symptoms closely resembling those of Phthisis, Cough, Emaciation, Pyrexia. Development of Acute Mania, subsequently Coma and Death. Autopsy.

Mrs. T., aged 45, admitted on 23rd June, 1889, at first under the care of Dr. Stewart and subsequently under mine. She complained of great weakness, shortness of breath, a sensation of tightness across the chest, and a short, dry cough with little expectoration. Her story was to the effect that having been in easy circumstances all her life, and never having suffered from any serious illness, she received a very severe shock nine years ago on hearing of the sudden death of her husband and the loss of his property, and at about that period she was made aware that she was the subject of heart disease. There is no history of phthisis in the family, but it is significant that her mother is said to have died of apoplexy.

The present illness began about three weeks previously to admission, and was characterized by fever and debility, with diarrhoea, so as to suggest typhoid fever to the mind of the practitioner, who recommended her.

The patient is very emaciated, and presents the appearance of a person in an advanced stage of pulmonary consumption. Respirations are short and labored (34 to 40 per minute). Temperature 103° . Has been getting thin since 1883, but during the last four weeks the loss of weight has been very rapid. Skin hot and dry in the daytime, but there is profuse perspiration at night. Cardiac dulness is of normal extent. At the apex there is a mitral systolic murmur which is transmitted but for a short distance to the left. Slight roughening of the pulmonary second sound. The condition of the respiratory system, though showing

no very marked indications of phthisis, was certainly such as to make that diagnosis most probable. The chest was long and narrow; the respirations short and hurried; she was quite unable to take a long breath and expansion was very limited. There was a short, dry cough with scanty expectoration. It was noted that the percussion note in the right supra- and infra-clavicular regions was lacking in resonance. No râles were heard anywhere, but the breathing over the right apex was harsh and expiration was prolonged and jerky. Posteriorly the breathing was weak. Digestion was disordered, the tongue was furred, and the bowels constipated. Urine healthy. The abdominal walls were extremely thin and permitted the movements of the intestines to be seen through them. During the fifty-two days she spent in hospital the fever was always persistently high (100° – 102°), and on two occasions it registered 103° at night. The pulse was usually about 110 or 112; the respirations numbered between 36 and 48. Some nervous symptoms were present. The left leg was said to feel numb and the superficial reflexes of the left side were less active than those on the right. The left pupil is rather larger than the right. The patient appeared to be somewhat dull and stupid. The treatment consisted in rest and the administration of quinine.

July 10th.—The patient became suddenly maniacal to-day and could with difficulty be restrained.

July 20th.—Mental condition has been greatly disordered. Since last note she has been very restless and delirious, cannot sleep, and is continually moaning. Sulphonal was administered with good result, inducing sleep and quieting the mental excitement, which subsided altogether to-day.

August 12th.—The general condition is rapidly deteriorating. The pulse is weak, the breathing hurried. Death seems imminent.

August 14th.—Very early this morning, in attempting to get out of bed unaided, she fell in a "fit" on the floor. On being put back again into bed it was noticed that the eyes were open and, though speechless, she appeared to know what was taking place. Dr. England, the house physician, found her in a semi-comatose condition, breathing stertorously; respirations 48;

pulse 138; temperature 103.4°F.; loss of corneal reflex; contracted pupils; eyeballs oscillating. The muscles were in a condition of general spasm. When first seen sensation was present, but soon was lost; superficial reflexes became indistinct and were lost too. Deep coma set in and she soon died.

The autopsy was made by Drs. Finley and England. There was some emphysema, but no evidence of active disease of the lungs; at the right apex, however, there was some puckering, showing former disease in that neighborhood. The most important lesions were in the heart. The cardiac muscle and the cavities were normal. On the auricular surface of the mitral valve there is a greyish-red, fleshy-looking, fibrinous vegetation about the size of an almond, the surface of which is at one part eroded as though an embolus had recently been detached. The vegetation is readily removed and an ulcer is exposed, which is of distinctly oval outline, a quarter of an inch long, with firm fibrous borders. The base is covered with a small quantity of pus. The valve is not perforated, and there are no other changes in the endocardium. The root of the aorta presents early and slight atheromatous *plaques*. The spleen is enlarged slightly, soft and pulpy. There are several old firm infarcts of a yellow color and a few recent ones. The kidney presents a similar old infarct. An embolus was found blocking up the right internal carotid artery at the point of division into middle and anterior cerebral arteries. There was also embolism of the left middle cerebral and of the posterior cerebral arteries. The general surface of the brain was much congested. Dr. Finley writes to me on August 27th: "I have examined for micrococci with, so far, negative results, but would hardly like to state this in a report without further search. Judging from the firm edges of the ulcer and the old infarcts there can be no doubt that the acute ulcerative condition has been added on to an old lesion, probably an atheromatous *plaque* or ulcer. The recent emboli have been derived from the surface of the fibrinous vegetation. I will work up the microscopic appearances in time for insertion in the next JOURNAL." And again on August 31st he writes: "A number of cover-glass preparations were examined for micro-

cocci, also sections by Gram's method, with a negative result. There were no micrococci in the recent splenic infarcts. The case is therefore one of ulcerative endocarditis *without* microorganisms."

There can be no doubt that the case was one of malignant endocarditis of the cardiac group, cases in which patients the subjects of chronic valve disease are attacked with febrile symptoms and evidence of a recent endocarditis engrafted upon the old process. These are the cases where the morbid process is less active, and which are chronic in their course. The clinical history closely corresponds with the picture of such a case drawn by Osler in the Gulstonian lectures of 1885. Instead of the hebetude or low delirium there was an attack of what we may fairly call mania. In these cases acute mental symptoms may depend simply upon valvular derangement. The connection between valvular disease and insanity has long been recognized though particular attention has lately been given to the connexion. In the *Lancet* of May 12th, 1888, a lecture by Dr. Mickle will be found, in which the subject is somewhat exhaustively dealt with. Since then, or at about the same time, the connexion of various forms of insanity with valvular affections attracted some attention in Germany, and in the last two years some very good papers have been published on the subject. Similar mental phenomena occurred in one of my heart cases in ward 11 in the summer of 1885. This man had aortic regurgitation with subsequent involvement of other valves and general dropsy. In the course of the illness acute mania developed, and added greatly to the difficulties of managing the case. On referring to my notes I find that this case presented a train of symptoms curiously similar to those of the woman. The mania was somewhat of the same character, that is to say not very violent, and it was followed by hemiplegia, and that, too, in the left side—the same side in both cases. But there was no elevation of temperature. During the last quarter we have had in hospital two other cases in which mental symptoms of a maniacal kind were present in patients with valvular disease. Dr. Stewart had charge of one case, the other is at

present in my wards. She is a girl of 25 years of age. There is a loud double aortic murmur as well as a regurgitant mitral, and dropsy is general. Her mental functions are deranged. She is childish, fretful, at times noisy, and on one occasion was unruly. She tells me that she hears voices which tell her to do what she knows is wrong, but that she cannot help obeying them.

GYNÆCOLOGICAL CASES UNDER CARE OF DR. ALLOWAY.

(Reported by DR. LOWE.)

CASE I.—*Divulsion with Incision.*

Aged 34; complains of bearing-down pain in both groins, weakness in the back, and at times aching in left leg and thigh; severe dysmenorrhœa. These pains have lasted four or five years, and followed an exposure to cold during a menstrual period. *History*—Menses began at 15; always regular, lasting four or five days; painful during first two days. Married five years; no children.

Examination—Uterus anteflexed, cervix elongated, and canal stenosed.

June 4th.—Dr. Alloway forcibly dilated to $1\frac{1}{2}$ inches, excised a V-shaped piece out of the posterior segment of the cervix, sutured the edges of the raw surface together, and inserted a wire dilator. *6th*—Doing very well. *10th*—Menstruated without pain. *15th*—Sutures removed to-day, also the dilator. *17th*—Discharged.

[The operation of divulsion with steel dilators, followed by excision of a V-shaped piece from posterior segment of cervix, is often followed by the very best results, especially in relieving menstrual pain.—T. J. A.]

CASE II.—*Trachelorrhaphy.*

Aged 34; admitted May 20th, 1889, complaining of frequent and somewhat painful micturition; pelvic and lumbar pain; sense of constriction about the epigastrium and a feeling as if a ball were rising out of her stomach; leucorrhœa and scanty menstruation. About three years ago she had an attack of acute cystitis, and for two days had complete retention of urine. Her bladder trouble has existed more or less ever since.

History.—Menses began at 15 ; has been irregular for the last seven years, especially during last year ; married at 23 ; had one full-term pregnancy ; labor difficult, but not instrumental ; two miscarriages at three months, last one seven years ago. From this patient dates all her troubles.

Examination.—Bilateral laceration of cervix, with much glandular hypertrophy and ectropion.

May 31st.—Dr. Alloway performed an Emmet's trachelorrhaphy to-day.

June 1st.—Patient has some headache and neuralgic pains in side and back ; painted with iodine. *4th*—Improving ; pains relieved. *6th*—Still improving. *9th*—Sutures removed. *10th*—Sat up in bed to-day. *20th*—Discharged.

CASE III.—*Curetting followed by Gauze Pressure.*

Aged 22 ; admitted June 2, 1889, complaining of discharge of blood-clots from vagina and bearing-down pain in pelvis. About three months ago, at third month of pregnancy, she was frightened by a horse falling down in the street, and that night she noticed blood coming from vagina. This continued for about three weeks. In the meantime she continued at her housework. Bleeding has been continuous ever since, with intermissions of of one or two days. Flow has always been accompanied by bearing-down pain in back and loins.

History.—Menses began at 14 ; always irregular, sometimes every three weeks and sometimes every two weeks ; have always been profuse and sometimes painful, especially before the flow. Married six years ; three pregnancies, two to full term and one at third month. Last pregnancy two years ago.

Examination.—Found uterus much enlarged, retroverted and tender ; cervix lacerated bilaterally.

June 4th.—Dr. Alloway curetted a large amount of membranous tissue from interior of uterus and packed the cavity with iodoform gauze. *5th*—Patient doing well ; temperature normal ; slight reddish discharge from vagina. *6th*—Packing removed from uterus ; ordered hot douches of 1 to 60 carbolic solution. *10th*—Patient has continued to improve ; discharges

diminishing. 20th—Patient left the hospital to-day feeling quite well.

[In this case, which was one of the glandular variety of endometritis with almost constant bleeding, I adopted Vulliet's method of packing the uterine cavity with iodoform gauze after thorough curetting with the sharp instrument. If this method is carried out properly and the packing allowed to remain *in situ* for four or five days, I think better results can be obtained in such cases than from the method of injecting the cavity of the uterus with iodised phenol. It is also, I think, a safer method of dealing with them, the gauze ensuring more perfect drainage. In this case it proved most satisfactory.—T. J. A.]

CASE IV.—*Recto-Vaginal Fistula.*

Aged 32; admitted June 2nd, 1889, complaining of pain in interscapular and lumbar region; bearing-down pain in pelvis; burning pain in vagina; leucorrhœa. These symptoms have lasted more or less since the birth of her first child, about four years ago.

History.—Menses began at 18; always regular, never painful until after marriage. Married six years; two pregnancies at full term; labors natural: last labor one year ago.

Examination.—Found large recto-vaginal fistula; cervix lacerated; uterus enlarged and hard.

June 10th—Emmet's operation on the cervix and Tait's flap-flap-splitting perineorrhaphy were performed by Dr. Alloway, and the vagina packed with iodoform gauze. 14th—Patient doing well. 19th—Allowed up to-day. 21st—Patient has been up and walking about the ward ever since; fistula completely closed. Discharged to-day. 27th—Sutures removed from the cervix to-day; union good.

[This was a very interesting case regarding the rarity of recto-vaginal fistulæ of this nature. A full description of the case can be read in the July number of this JOURNAL embodied in a clinical lecture delivered at the hospital.—T. J. A.]

CASE V.—*Trachelorrhaphy.*

Aged 26; admitted June 7th, '89, complaining of continuous

and profuse bloody discharge from vagina with very foetid odor; pain in right inguinal and hypogastric regions; sensation as of a lump falling down in rectum, which seems to partially occlude the vagina. The discharge has lasted about six months, the pain about three months. Pain began during a menstrual period and has remained constant ever since. She continued at her work till the pain became so severe that she had to come to hospital.

History.—Married nine years; two pregnancies to full term; labors were easy, last one six years ago.

Examination.—Extensive bilateral laceration of cervix, with considerable hypertrophy and ectropion.

Emmet's operation on the cervix was performed on the 10th of June by Dr. Alloway.

June 17th.—Sutures removed.

July 6th.—Discharged to-day quite well.

CASE VI.—*Curetting for Menorrhagia.*

Aged 46; admitted June 17th, 1889, complaining of profuse flooding. About a week after her last regular period she noticed a slight bloody discharge coming from vagina. This discharge continued, but was slight until about eight days ago, when it became very profuse. Before this attack came on she had severe bearing-down pain, but since the flow has had little or no pain. At present blood comes in gushes and large masses of clot along with it.

History.—Menses began at 14; always regular but painful before marriage. Married eleven years; ten pregnancies, eight to full term and two at third month; labors easy. First miscarriage about twelve years ago; had severe flooding following it. Has had an attack of flooding every year for the last nine years, but at present it is more profuse than ever.

Examination.—Slight bilateral laceration with ectropion.

June 19th.—Dr. Alloway curetted uterus and filled cavity with iodoform gauze. *22nd*—Iodoform gauze removed, free from odor. *24th*—No discharge to-day; patient feels well.

July 1st.—Discharged, quite well.

Patient came back about a week later saying discharge was

as profuse as ever, and had commenced the day after she left the hospital. The uterus was injected with iodized phenol. Patient reported several days later that discharge was gradually lessening.

[This case left the hospital much too soon, which accounted for the return of the discharge. The injection of iodized phenol undoubtedly arrested it for the time, which it always will do, but if she had had sufficient rest after the curetting the bleeding would not have returned abnormally.—T. J. A.]

CASE VII.—Aged 53 ; admitted June 14th, 1889, complaining of profuse and over-frequent menstruation, and frequent and painful micturition.

Examination.—Chronic metritis and endometritis ; right unilateral laceration with extensive hypertrophy and cystic degeneration of cervical glands ; retroversion of uterus, and lacerated perineum.

June 17th.—Schroöder's operation on the cervix, Tait's flap-splitting operation on the perineum, and Alexander's operation to shorten the round ligaments were performed by Dr. Alloway at one sitting.

July 1st.—Perineal sutures removed ; union good. *3rd*—Sutures removed from abdominal wound to-day ; union perfect. *9th*—Patient has continued to improve ; sat up in bed to-day for the first time. *12th*—Walked round the ward a little to-day. *21st*—Discharged to-day feeling well and free from feelings of discomfort. Vaginal examination with patient in erect posture, found uterus anteverted and high up in the pelvis.

[The bladder irritability must have been due to traction upon it by the retroverted uterus, in sustaining the weight of the intra-abdominal pressure. When the uterus was brought forward and elevated on the pelvis, the pressure passed behind the uterus and the bladder was no longer influenced. It will be noticed in this case that the three operations were done at the one sitting in about an hour and a quarter. This is not by any means a difficult procedure, and should always be done when necessary in preference to subjecting the patient to a second etherisation and invalidism.—T. J. A.)

Society Proceedings.

CANADIAN MEDICAL ASSOCIATION.

BANFF, August 12th, 1889.

The twenty-second annual meeting of the Canadian Medical Association was called to order by Dr. Ross, at 11 a.m.

Dr. Hingston, a past president, was invited to a seat upon the platform.

The following members, by invitation, were introduced by Dr. Ross: Drs. Whittaker and P. S. Connor, of Cincinnati; Drs. Bulkley and Gibney, of New York; Dr. Marcey, of Boston; Dr. Gordon, of Quincey, Mass.; Prof. Barker, of Philadelphia; Dr. Hannon, of Hoosac Falls; Dr. Lathrop, of Dover, N. H.

Dr. BRETT, of Banff, on behalf of the citizens of Banff, presented the following address of welcome:—

“To the President and Members of the Canadian Medical Association:

“Gentlemen, we the members of the Citizens' Committee, representing the community of Banff, on this the occasion of your assembling here for the purpose of holding the twenty second annual meeting of your important association, desire to express our appreciation of the honor which the gathering of so learned a body implies, and, in the absence of a demonstration worthy of the occasion, beg to tender you through this unpretentious address, a sincere and cordial welcome to our midst.

“We venture to assert that the selection of this spot for your place of meeting is singularly felicitous, inasmuch as you, as members of an association distinctively national, could find no more appropriate place in which to conduct the important and useful affairs of your association than this little town of Banff, the heart of the Canadian National Park.

“We hope that your brief stay here may not be altogether without interest to you, that in the grandeur of the scenery, the extent and diversity of mountain, forest and river, or in the healthful qualities of the springs which abound in these parts, and whose sanative properties are now so well known, you may find something worthy of more than a passing notice, worthy in fact of being treasured, when this short

visit is over, among the memories which it shall be a pleasure to recall.

"Assuring you of our desire to make your sojourn among us as agreeable as possible,

"We have the honor to be

Yours, &c.,

(Signed)

R. S. BRETT,

F. J. BOSWELL,

R. B. C. O'DONOGHUE.

On behalf of the Citizens' Committee.

Banff, August 12, 1889."

The following gentlemen were next elected permanent members, the President having declared an adjournment of ten minutes to allow the candidates to send in their names and pay the annual fee to the Treasurer.

Proposed by Dr. Cameron and seconded by Dr. Roddick, that the following gentlemen be elected members of the Association:—

Dr. Spencer, Brandon, Man.; Dr. J. W. Smith, Galt, Ont.; Dr. G. A. Kennedy, McLeod, N. W. T.; Dr. W. A. Ross, Barrie, Ont.; Dr. H. B. McPherson, North Sydney, N. S.; Dr. Geo. Riddell, Crystal City, Man.; Dr. A. J. Rutledge, Moosomin, Man.; Dr. H. L. McInnis, Edmonton, N. W. T.; Dr. D. Young, Selkirk, Man.; Dr. G. Fleming, Chatham, Ont.; Dr. W. J. Mitchell, London, Ont.; Dr. Lewis Johnston, Sydney Mines, C. B.; Dr. Samuel Webster, Norval, Ont.; Dr. W. P. Chamberlain, Morrisburg, Ont.; Dr. Alex. Thompson, Strathroy, Ont.; Dr. John J. Farley, Belleville, Ont.; Dr. P. Robertson, St. Andrew, Que.; Dr. G. Loughhead, Petrolia, Ont.; Dr. C. Selby Haultaine, Maple Creek, N. W. T.; Dr. W. J. Lindsay, Calgary, N. W. T.; Dr. P. Aylin, Calgary, N. W. T.; Dr. James Hayes, Simcoe, Ont.; Dr. D. Eberts, Nanaimo, B. C.; Dr. G. A. Praeger, Nanaimo, B. C.; Dr. S. J. Tunstall, Kamloops, B. C.; Dr. Fagan, New Westminster, B. C.; Dr. R. J. Bentley, New Westminster, B. C.; Dr. F. H. Mewburn, Lethbridge, N. W. T.; Dr. A. Olver, Medicine Hat, N. W. T.; Dr. Reginald Henwood, Brantford, Ont.; Dr. A. J. Henwood, Brantford, Ont.; Dr. A. Jukes, Regina, N. W. T.; Dr. I. Harkness, Iroquois, Ont.; Dr. Webster, Kentville, N. S.

The Committee on Reciprocity of Registration was not prepared to report.

The following gentlemen were appointed as a Nomination Committee:

Dr. Stewart, Pictou, N. S.; Dr. Armstrong, Montreal, Que.; Dr. Roddick, Montreal, Que.; Dr. Lachapelle, Montreal, Que.;

Dr. Henderson, Kingston, Ont.; Dr. A. H. Wright, Toronto, Ont.; Dr. Grasett, Toronto, Ont.; Dr. Chown, Winnipeg, Man.; Dr. O. C. Edwards, Qu'Appello, N. W. T.; Dr. LeFevre, Vancouver, B. C., and also the President and Secretary, *ex officio*.

The Secretary then announced the programme to the meeting, explaining why there were no printed programmes prepared for this meeting.

Dr. WRIGHT then read his Inaugural Address. (*See page 161.*)

The meeting then adjourned until 8 p. m. for discussion of the amendments to the by-laws.

BANFF, August 12th, 1889, 8 p. m.

After a prolonged discussion the By-laws of 1874 were amended. It was then decided that the by-laws, as amended, should be brought up for adoption at the next annual meeting.

DR. TRENHOLME, of Montreal, gave the following notice of motion:—

“That the Nominating Committee shall be appointed by and for each Province by the members present thereof at the annual meeting.”

The meeting then adjourned.

BANFF, August 13th, 1889.

The meeting was called to order at 9.30 a.m., Dr. Wright presiding.

The minutes of the previous meeting were read and confirmed.

Mr. Niblock, Assistant Superintendent of the Western Division of the Canadian Pacific Railway, was introduced by the President, and addressed the meeting on behalf of the new hospital now being built at Medicine Hat.

DRS. F. W. CAMPBELL and T. A. RODGER, of Montreal, gave information on behalf of the Committee on Reciprocity of Registration.

DR. CAMPBELL expressed the opinion that it would be impossible to secure reciprocity between England and Canada under existing circumstances.

The Committee was continued.

Without dividing into sections, the reading and discussion of papers was then proceeded with.

The first paper was read by Dr. A. H. Wright on "Hæmato-
toma of the Vagina and Vulva."

Discussed by Drs. James Ross, Muir, Marceoy, Roddick,
Trenholme and Sloan.

Dr. Wright spoke in reply.

Dr. G. A. Kennedy, of McLeod, N.W.T., next read a paper
on "The Climate of South Alberta," with special reference to
its advantages to those suffering from pulmonary complaints.

Discussed by Drs. Oldright, McInnis, Praeger, Bentley,
Henderson, McLellan and Spencer.

Dr. Whittaker, of Cincinnati, spoke on this subject, dealing
chiefly with the origin of tuberculosis.

Dr. Ross (Toronto) reported a case in which he had discovered
gross evidences of tubercular disease in an eight-months
fetus, which died soon after delivery.

Dr. Kennedy replied.

Dr. V. P. Gibney apologized for not having his paper with
him, but opened a discussion upon the subject upon which he
had intended to write: "The Management of Hip Joint Dis-
ease." He proposed to call the disease "Tubercular Ostitis
of the Hip Joint," and recommended absolute immobilization.
The American idea of traction with motion had become
obsolete. Axillary crutches with spica plaster bandage, in-
cluding pelvis and calf, or, if a splint is desirable, a crutch
splint from the perineum.

Discussed by Dr. P. S. Connor, who stated that 95 per cent.
of all cases of hip joint disease were tubercular. For treat-
ment he recommended in early disease immobilization; in
later stages of the disease he recommended arthrectomy,
excision, or amputation, the essential principle being complete
removal of tubercular matter.

Dr. Strange did not favor excision. He considered trauma-
tism a common cause.

Dr. Roddick agreed with the previous speakers and sug-
gested traumatism as a special cause in addition to the ordi-
nary cause, tuberculosis. He believed in extension.

Dr. Oldright related two cases.

Dr. Praeger related a case caused by a blow upon the left
hip.

Dr. I. H. Cameron recommended the American plan of

treatment. Recommended Buck's extension until rigidity of the muscles is overcome, then splints and movement.

Dr. Shepherd drew a distinction between the treatment of hospital cases and those who have the means of resorting to climatic and other hygienic conditions.

The meeting then adjourned till 2.30 p.m. for lunch.

The first paper after lunch was by Dr. Buller upon "Preventible Deafness."

Dr. Reeve spoke upon the desirability of keeping the post-nasal and pharyngeal cavities clean and healthy.

Dr. Grasett read a paper upon "Colles' Fracture," dividing the subject into three sections. (1) Those in which the fracture is complete. (2) Where there is great displacement which is hard to reduce. (3) The form occurring in old people.

This was discussed by Drs. Roddick, Sloan, McLellan, Geikie, I. H. Cameron and Stockwell.

Dr. Ross read a paper upon "Empyoma Successfully Treated by Free Incisions." No discussion.

Dr. James Stewart read a paper upon "Sulphonal."

Dr. Whittaker corroborated the remarks of Dr. Stewart in his paper. He considered sulphonal and paraldehyde the best hypnotics we have, and they are harmless.

Dr. Whittaker then read a paper upon "Varicella."

Discussed by Drs. Geo. Ross and Bulkley.

Dr. Reeve, of Toronto, read a paper on "The Relief of Pain in Eye and Ear Affections."

Dr. Shepherd read a paper on "Nephro-Lithotomy."

Discussed by Drs. Connor, Dupuis, Bell and Roddick.

Dr. Bulkley read a paper on "The Early Recognition and Treatment of Epithelioma," dealing with the subject from a clinical standpoint. He deprecated the use of mild caustics, such as nitrate of silver, and recommended soothing and mildly stimulated applications in early cases, and in the more advanced cases, excision, curretting or cautery, claiming good results from Marsden's Paste, which consists of arsenious acid and gum acacia in equal parts by measurement.

Discussed by Drs. Muir, Dupuis, Chamberlain, Wright of Ottawa, Shepherd, Roddick and Connor.

Dr. Bulkley replied.

The meeting then adjourned until 8.30 p.m.

Dr. Stewart, of Pictou, convener, reported on behalf of the nominating committee as follows:—

OFFICERS.

President, Dr. James Ross, Toronto, Ont.
 Secretary, Dr. James Bell, Montreal, Que.
 Treasurer, Dr. W. H. B. Aikins, Toronto, Ont.

Vice-Presidents—

For British Columbia, Dr. D. Eberts, Nanaimo, B.C.
 For the North-West Territories, Dr. Brett, Banff, N.W.T.
 For Manitoba, Dr. R. Spencer, Brandon, Man.
 For Ontario, Dr. Bruce Smith, Seaforth, Ont.
 For Quebec, Dr. E. P. Lachapelle, Montreal, Que.
 For New Brunswick, Dr. Holden, St. John, N.B.
 For Nova Scotia, Dr. L. Johnston, Sydney Mines.
 For Prince Edward Island, Dr. McLeod, Charlottetown, P.E.I.

Local Secretaries—

British Columbia, Dr. Fagan, New Westminster, B.C.
 North-West Territory, Dr. Rutledge, Moosomin, N.W.T.
 Manitoba, Dr. H. Higginson, Winnipeg, Man.
 Ontario, Dr. J. J. Farley, Belleville, Ont.
 Quebec, Dr. John Elder, Huntingdon, Que.
 New Brunswick, Dr. Raymond, Sussex, N.B.
 Nova Scotia, Dr. W. S. Muir, Truro, N.S.
 Prince Edward Island, Dr. Wraburton, Charlottetown.

The following standing committees were appointed:—

Necrology—Drs. Hingston, A. H. Wright and Geo. Ross.

Medical Education and Literature—Dr. Dupuis, Kingston; Dr. Cameron, Toronto, and Dr. Mullin, Hamilton.

Prize Essays—Moved by Dr. Bell, seconded by Dr. Stewart (Pictou), that no committee be suggested this year, as there are no prizes offered.—*Carried.*

Climatology and Epidemic Diseases—Drs. Oldright and Bryce, Toronto; Campbell and Lachapelle, Montreal; Parker, Halifax; Jukes, Regina; Robillard, Ottawa; Patterson, Winnipeg; Milne, Victoria; Kennedy, McLeod, N.W.T.

Ethics—The president and president-elect and the eight vice-presidents.

Committee of Arrangements—Drs. James Ross, W. E. Geikie, Oldright, Graham, Strange, Grassett, A. H. Wright, O'Reilly and W. H. B. Aikins, Toronto.

Publication Committee—Dr. A. Morrow, Halifax; Dr. James Stewart, Montreal; Dr. Sheard, Toronto.

The report was adopted and the above named officers and committees declared elected for the ensuing year.

The meeting was re-opened at 8.30 p.m. by the reading of a paper by Dr. I. H. Cameron, on "Hernia," in which he gave the views of Mr. Lockwood.

Discussed by Drs. Marcey, Gardner, and H. P. Wright, Dr. Cameron replied.

Dr. Praeger narrated several surgical cases.

The President announced that Dr. Jukes had withdrawn his paper on "The Endemic Fever of the North-West Territories."

Dr. Dupuis was called upon to read his paper, "Some improvements in Medical and Surgical Instruments." As the hour was late, he contented himself with showing and explaining the instruments without reading his paper.

The following papers were then declared read by title, the authors not being present.

1. "Mineral Springs," by Dr. H. P. Small, of Ottawa.

2. "Vertigo: an Eye and Ear Symptom," by Dr. J. W. Stirling, of Montreal.

3. "A Common and Easily Preventible Cause of Retro-Displacements," by Dr. A. L. Smith, of Montreal.

4. "A Case of Necrosis following a Compound Fracture," by Dr. John Campbell, Seaforth, Ont.

Dr. Stewart of Pictou, moved, seconded by Dr. Roddick, that the president nominate a committee to confer with the provincial and local societies and approach the federal and local governments with a view of reducing the tariff on surgical instruments.—*Carried.*

Dr. P. S. Connor, on behalf of the American visitors, in a happy manner, thanked the Association for having invited the American delegates.

Cheers were then given for the American delegates.

The treasurer's report, audited by Drs. Buller and Lachapelle, was received and adopted by motion.

The treasurer's report is as follows:—

Fees received by acting-treasurer from members (\$2).	\$164.00
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Liabilities.

Balance due Dr. Sheard, former treasurer.....	\$ 2.07
Times Printing Co., Hamilton.....	13.00
Somerville, Benallack & Co., Montreal.....	52.50
Secretary for post stamps, stationery, &c.....	30.75
Moulton's Theatre Co.....	20.00
Burland Lithographic Co.....	2.75

\$121.07

Balance.....	\$42.83
Reduction in charge for use of theatre.....	5.00

\$47.83

Examined and found correct.

The following resolutions were then proposed, seconded and carried.

Moved by Dr. Buller, seconded by Dr. Chas. O'Reilly :

"That this Association has great pleasure in conveying to the Canadian Pacific Railway Company its most cordial acknowledgements, for the facilities that they have been accorded in coming to Banff, and the kind attention they have received from all the employees of the company with whom they have had to deal, as well as for the superb accommodation and the great enjoyment they have derived from their sojourn in the world renowned Banff Springs Hotel. Taking into consideration the length of the journey, the season of the year, and the unavoidably imperfect information as to the location and numbers of those who formed the main body of the excursion, the arrangements, as carried out by the company, have been such as to excite the admiration and grateful recognition of the Association. The thanks of the Association are especially due to Mr. William Whyte, general superintendent of the road, for his exceeding kindness in accompanying them from Winnipeg to Banff and giving his personal supervision in all matters concerning their safety and welfare."

Moved by Dr. Geikie, seconded by Dr. Bruce Smith:

"That the cordial thanks of the Association be and are hereby given to the citizens of Banff, for the kindness and courtesy exhibited towards the Association during the annual meeting just held, and especially for the address of welcome presented by the citizens to the Association at its first session, which contained so many expressions of interest in the Association and of good will towards it."

Moved by Dr. Ross, seconded by Dr. McLellan :

"That this Association hereby tender to His Honor, Dr. Schultz, Lieutenant-Governor of Manitoba, its grateful thanks for his cordial reception of them at the Government House during their passage through his province. That they rejoice to observe that the press of political duties has not interfered with the continuance of a keen interest on the part of his Honor in everything calculated to advance the interests of that profession in which he is so proud to number himself amongst its loyal members. That this association assures Dr. and Mrs. Schultz that their generous hospitality in Winnipeg has been highly appreciated, and will in retrospect make one of the brightest memories of an ever memorable meeting."

Moved by Dr. Farley, seconded by Dr. Edwards :

"That this Association appreciates and will gratefully remember the Grand Trunk Railway Company for kindly co-operating with the Canadian Pacific Railway in making our trip to Banff a pleasant one."

Moved by Dr. Oldright, seconded by Dr. Lachapelle :

"That the Canadian Medical Association do respectfully submit to the Government of the Dominion that it is highly desirable in the public behalf, as well as in the interest of medical science, that members of the profession should be in possession of reliable statistics of the climatic conditions of Banff and other resorts in the North-West territories, as well as of the chemical composition of the soil and waters of the district, in order that they may act with greater confidence in sending patients to these resorts, and that the Association do further memorialize the Government to establish a signal station at Banff with branches at such other points as may be found necessary, a competent person being appointed to superintend the observation at such station or stations."

Moved by Dr. W. S. Muir, Truro, N. S., seconded by Dr. Shepherd, Montreal :

"That the Local Provincial Secretaries be requested to ascertain the feeling of the medical societies of their respective Provinces on the subject of affiliation with the Canadian Medical Association."

A vote of thanks to the medical men of Winnipeg was moved by Dr. W. S. Muir, of Truro, N. S., seconded by Dr. Geikie.

Moved by Dr. Lachapelle, seconded by Dr. Oldright :

"That this Association hereby declares its opinion that it is the duty of all practitioners to loyally comply with the regulations in force in the different Provinces, and to report cases of contagious disease to their respective local authorities, so as to enable these authorities to give suitable advice and take such measures as might be required in order to prevent the spreading of contagious diseases and prevent epidemics."

Moved by Dr. Strange, seconded by Dr. Henderson :

"That the cordial thanks of the Canadian Medical Association be tendered to the Manitoba and other Clubs of the City of Winnipeg for the privileges conferred on its members."

Proposed by Dr. Shepherd, seconded by Dr. Lachapelle :

"That the thanks of the Association be conveyed to Mr. Lalonde for his great care and attention and unfailing kindness to the members during the trip from Banff to Montreal."

Moved by Dr. Campbell, seconded by Dr. Preston :

"That the thanks of the meeting are hereby tendered to Dr. Wright, the President, for the impartial and business-like way in which he has conducted the Canadian Medical Association."

Moved by Dr. Campbell, seconded by Dr. Sloan :

"That the thanks of the Association are tendered to Dr.

Holl, General Secretary, for the able and courteous manner in which he has performed the large amount of work which has of necessity fallen to him in organizing what has been the most remarkable meeting in our history.

The following letter was received from his Honor the Lieutenant-Governor, Dr. Schultz, of Manitoba:

GOVERNMENT HOUSE, Winnipeg, Man., Aug. 12, 1889.

MY DEAR SIR,—In answer to the wish expressed by the officers and many of the members of the Association that I would be present at your Banff meeting, I regret to say that I find other duties will, for a time at least, call me in another direction, though I will make an effort to meet you all in British Columbia before your return. Kindly allow me to say to the Association through you, how gratified I am personally, and how pleased I know the profession here to be, at the choosing of a place in the North-West for the meeting of the Association this year. To my mind Banff is particularly appropriate, for it is one of our National Sanitariums. There are questions of medical and other scientific importance which may be better observed and discussed there than almost anywhere else in Canada. You are on a range of mountains memorable with recollections of several great men. Doctor, and afterwards Sir John, Richardson followed their course down our mighty northern river till their grand heights slowly descended to the flat plain which forms the shore of the Arctic Sea. This worthy companion of the great Arctic voyager, whose dust is sepulchered in the snows and ice of the Arctic archipelago, first gave to the world the knowledge of the animal life of the great northern wilds. Dr. Hector gave most valuable information in the same direction, and of the diseases of the Northern tribes, when with Captain Palliser he explored the Rocky Mountain passes to the south of the one in which your meeting is now being held. Dr. Choadle, surgeon to Lord Milton's party, wrote that most interesting and valuable book, "The North-West Passage by Land," describing one of the passes to the north of where you are; and I feel sure that so many men learned in the profession to which I am proud to belong, when discussing in council can not fail to throw light upon many of the questions which will naturally present themselves for solution, such as, for instance, whether the high temperature of these springs is due to the disintegration of the sulphites and sulphates, or is the result of volcanic action; and whether, if from other of these causes, the temperature varies and the proportion of chemical constituents changes from the published analysis. The effect of high altitudes upon the bacilli of phthisis and upon other disease germs, and the effect of large areas of non-absorbable granite rocks upon the life of such bacteria as may be found

at these elevations; and I would ask my learned confreres, when in discussion of more scientific questions shall have been completed, to pause and reflect for a moment that for economic purposes Canada is widest and no longer a mere arable strip on the banks of the St. Lawrence, where on the east (and northward from the boundary line) Canada measures thirteen hundred miles of arable and pastoral land, and to the west nearly an equal north and south width of one of the richest mineral districts in the world.

I am, Dear Sir,
very faithfully yours,

JOHN SCHULTZ.

The Secretary Canadian Medical Association,
Banff, N. W. T.

As the meeting had been concluded, it was decided by the President and Secretary to acknowledge the receipt of the letter, and to request the various medical journals to publish it in full in their next issues.

MEDICO-CHIRURGICAL SOCIETY OF MONTREAL.

Stated Meeting, May 31st, 1889.

WM. GARDNER, M.D., PRESIDENT, IN THE CHAIR.

On motion by Dr. Roddick, seconded by Dr. Shepherd, Dr. Joseph Workman of Toronto was elected an honorary member of the Society.

Drs. Low, Campbell, Booth, England and Brown, resident medical officers of the Montreal General Hospital, were also elected members.

Removal of Appendix Vermiformis.—DR. BELL exhibited the patient on whom he had operated and gave the following history:—

G. D., aged 28, a young Englishman, with a markedly tubercular family history and a small area of tubercular deposit in one lung, had suffered for four and a half years with repeated attacks of pain, tenderness and swelling in the right iliac region, with fever and digestive disturbance. These attacks had been coming on more and more frequently, and were each time more imperfectly recovered from. There had been eight or nine such attacks in all, and the patient had been confined to his room for nine months, when the last attack seized him about the middle

of April, 1889. This attack came on with severe pain, radiating from the right caecal region, griping and diarrhoea. When seen, thirty-six hours after the onset of the attack, the patient lay with his knees drawn up, suffering great pain all over the abdomen, but most severe over the caecal region, with paroxysmal exacerbations. The abdomen was swollen, tympanitic and very tender, and a resisting mass could be felt just internal to and above the antero-superior spine of the right iliac crest. Pulse 100; temperature 100°F. Patient was sent to hospital, but would not consent to operation which was immediately proposed to him. He was treated with hot applications and opium in large quantities. (The diarrhoea had only lasted a few hours and occasional vomiting occurred.) The opium failed to relieve his pain and all the symptoms increased in severity, so that he consented to the operation, which was performed twenty-four hours after admission. An incision about five inches long was made from just above the middle of Poupart's ligament almost vertically upwards—inclining slightly outwards—exposing the caecum and lower two inches of the ascending colon. A small abscess cavity containing from two to four drachms of thick, creamy pus was formed by the caecum, appendix vermiformis, and a mass of swollen omentum in front. The appendix was bent upon itself, swollen to the size of an ordinary index finger, with a gangrenous spot about midway from its base. The small intestines (as far as seen during the operation) were greatly congested and distended, but no lymph nor adhesions were observed in the abdominal cavity. The appendix was ligatured and removed with the mass of swollen omentum. A sharp attack of pneumonia supervened and endangered the patient's life for a few days, but the abdominal symptoms immediately subsided, and the patient recovered perfectly. Three months after operation he remained quite free from abdominal symptoms of any kind.

Rupture of the Ileum.—DR. BELL exhibited a portion of the ileum and said that the patient, a coachman, aged 47, strong and healthy, became intoxicated on the evening of the 3rd of May. He was last seen by his friends about 8.30 p.m. of that

day. During the night he was arrested and next morning tried and sentenced to ten days in jail (failing to pay the fine imposed). That same afternoon he was removed to the jail, which he entered complaining of pain in the abdomen. He was put to bed in the jail hospital, and at four o'clock in the morning was found dead in bed. An autopsy revealed the following conditions: (1) a couple of quarts of blackish, turbid fluid with a faecal odor in the abdominal cavity; (2) intense congestion of the intestines; (3) matting together of the small intestines in the right pelvic and iliac regions, and adhesion of this mass to the abdominal wall and the base of the bladder with recent lymph in large quantities; (4) a tear obliquely across the free surface of the ileum about twelve inches from the ileo-caecal valve. This wound was about an inch long, with the mucous membrane everted on both sides. There was no loss of mucous membrane anywhere nor evidence of recent or old ulceration of the intestines, which were carefully examined. There were no marks of violence externally. Dr. Bell expressed the opinion that the rupture of the bowel was undoubtedly the result of traumatism, almost certainly a violent blow upon the abdominal wall, giving the following reasons for this opinion: (1) the man was perfectly healthy until within thirty-six hours of the discovery of his death; (2) the absence of any ulcerative or other disease of the intestines; (3) the position, the length, and the direction of the lesion of the bowel and the eversion of the mucous membrane.

Tubal Pregnancy with Rupture.—DR. ANGUS MACDONELL gave the following history of the case:—

Between five and six o'clock in the evening of the 28th April he was called to see a young woman suffering from violent cramps in the bowels. He found her in bed in a state of collapse, with a pallor and expression of face suggesting hemorrhage as the cause. She complained of intense pain in the hypogastric region, which came on suddenly while in the act of ironing some clothes. She had been feeling quite well all day up to that moment. She had been losing no blood; there was no tenderness on pressure in any part of the abdomen; nothing in her history would lead one to infer peritoneal rupture or perforation. He therefore concluded that the pain from which she was suffering was merely

neuralgic, that the apparent collapse was due to the intensity of the pain, and that she would soon rally. He accordingly prescribed an anodyne; pill of opium gr. i, to be followed by antispasmodic doses of chloric ether and spirits of camphor. In the meantime he gave her a glass of spirits, which speedily revived her, and finding her sufficiently improved, he left her. At half-past eleven the same night he was called again to see the patient. On arriving at the house he found that the patient was all but actually dead; she gasped but two or three times at short intervals, when life entirely ceased.

DR. FINLEY, who performed the post-mortem, exhibited the uterus and appendages. On opening the abdominal cavity he found an effusion of blood in the peritoneal cavity. The quantity he estimated at about two gallons. The right tube presented a sacular swelling near the uterus about half an inch long, with a rent on its posterior surface. The interior of the sac was lined with a granular membrane which proved to be villi on subsequent microscopic examination. The corpus luteum was situated on the opposite ovary. The uterus admitted a probe for $3\frac{1}{2}$ inches, the cervix was lacerated, and the parts about the lacerations indurated. No foetus was found.

DR. MACDONELL stated that as the patient had menstruated twenty-seven days previously, and was daily expecting her monthly period, the foetation could not have been, at the outside, more than a month old.

Pale, contracted Kidneys in a young girl. Death from Peritonitis.—DR. FINLEY exhibited the kidneys of a young girl aged 19, who had died of acute peritonitis. The organs were much diminished in size, being less than half the normal weight. Although the surface presented numerous small puckered areas, the capsules were neither adherent nor thickened. On section, they appear to be of about normal consistence; the cortex slightly increased in depth, and of a pale yellow color, mottled with reddish patches. The pyramids are also pale, with reddish streaks, giving them a somewhat darker color than the cortex. Microscopic examination showed moderate fibroid thickening of the Malpighian capsules, and hyaline necrosis of many of the tufts. The renal epithelium was for the most part normal, but presented areas of

degeneration. The arteries were much thickened, and there was a moderate increase of fibro-nuclear tissue between the tubules. The spleen, which was increased in size, was bound to the surrounding parts by old adhesions. The peritoneal cavity contained about a pint of pus, and the intestines, liver and other viscera were covered with recent lymph. The appendix vermiformis, abdominal and pelvic organs were normal, and no cause for the peritonitis could be found except the condition of the kidneys. The heart was not hypertrophied, and there was no endocarditis. The other organs were normal, with the exception of a few old caseous nodules in lungs.

DR. WILKINS stated that the girl had come under his care in hospital four weeks before her death for an attack of subacute rheumatism in the ankles and shoulder, rapidly yielding to treatment. The patient was expected to leave hospital in a day or two. About five days before death the temperature rose, varying from 102° to $104\frac{1}{2}^{\circ}$, and forty-eight hours before death the ordinary symptoms of acute general peritonitis developed. The urine was examined on admission, but no albumen found. Dr. Wilkins commented on the absence of hypertrophy of the heart and on the latent character of the renal affection.

Papillomatous Fibroma.—DR. MCCONNELL exhibited microscopic preparations from a tumor removed by Dr. Roddick showing an excess of fibrous tissue in papillomatous tumor. The tumor was removed from the breast of a middle-aged woman some weeks before, and presented many unusual features on section. The prepared sections showed it to be a papillomatous fibroma, a very rare form of growth.

Case of Spastic Paralysis in a Pigeon.—DR. MILLS exhibited a pigeon, taken from the nest, affected with *spastic paralysis* of the right leg. It was congenital. He had in his loft another nestling of the same variety of pigeon (owl) similarly affected, and last year another case, though in a different breed. In none of these instances did the general health seem affected. The point of greatest interest to himself was the causation. In every case these young ones were the offspring of parents that had been much buffeted about in the loft and unable to find a resting place amid the struggle for choice for a considerable

time. The disease was the result, probably, of the disordered condition of the nervous system of the parents in consequence of this excitement, and if so, illustrates how the strains of our own civilization may account for the increase of nervous instability.

Dr. Mills also exhibited a specimen of a flying tumbler pigeon which had died a couple of days previously, manifesting psychic derangement. It had just hatched out a pair of young, and was possibly then the more readily affected, for pigeons, owing to the secretion of a kind of milky fluid from the crop at such times, seem occasionally to suffer from what corresponds to milk fever. An autopsy showed inflammation of the duodenum, apparently from round worms. It was likely that the irritation of these worms had given rise to the inflammation, and also contributed to the mental derangement at this critical period. In another case he had taken twenty of these worms ($1\frac{1}{2}$ inches long) from the upper intestine of a barb pigeon. They had apparently been the sole cause of death.

DR. STEWART remarked that the case of spastic paralysis presented many features commonly seen in the human species, but differed inasmuch as in the case shown the affection was unilateral and confined to the posterior extremity.

(To be continued.)

Selections.

The Maybrick Case.—The trial of Florence Elizabeth Maybrick for the wilful murder of her husband, James Maybrick, by poisoning him with arsenic last May, commenced on Wednesday, the 31st July, and ended on Wednesday, the 7th August, in a verdict of guilty and sentence of death. It was tried at the Crown Court, Liverpool, before Mr. Justice Stephen. Mr. Addison, Q.C., M.P., Recorder of Preston, led for the prosecution, with Mr. W. R. McConnell and Mr. Swift; Sir Charles Russell, Q.C., M.P., with Mr. Pickford, appearing for the defence. The greatest interest was taken in the proceedings, the court being crowded each day. The case for the prosecution occupied three days and a half; that for the defence nearly a day and a half. The learned judge's summing up took up the whole of Tuesday, the 6th, and more than one half of the next day, and a more exhaustive recapitulation of the whole

case could not have been made. The following is a condensed history of the more important medical features of the case as given in evidence.

The deceased was a Liverpool cotton-merchant, having an office in the city, and a residence at Aigburth, a suburb situated a few miles south of Liverpool. His age at the time of his death was fifty; he had been married eight years, the issue of the marriage being a boy aged seven and a girl aged three. The deceased and his wife lived apparently on happy terms until the day of the last Grand National Steeplechase, when they had a very serious quarrel, which was, however, on the intervention of Mr. Hopper, the family medical attendant, apparently made up. The deceased's health was described by Mr. Hopper and his relatives as being fairly good. His brother denied positively that he was in the habit of taking arsenic, and it appeared that the deceased had indignantly denied it. The deceased's family history was good, and his life was insured. On Sunday, April 14th, Mr. Fuller, of Albany street, London, saw the deceased at the residence of his brother, Mr. Michael Maybrick, Wellington Mansions, Regent's Park. He complained of a little pain in his head and numbness in his legs; he was apprehensive of paralysis. Mr. Fuller spent an hour with him, examined him fully, and expressed his opinion that there was nothing the matter with him beyond indigestion, for which he prescribed acid. nit. mur. dil. with nux vomica and syrup. He also ordered a compound camomile pill, and in a second prescription extract of caracara, some glycerine, and cream of tartar. The deceased called at Mr. Fuller's residence the following Saturday, April 20th, and expressed himself as much better; the prescriptions were varied a little. Mr. Fuller never prescribed arsenic, and nothing was said to him about it. On Sunday, April 28th, Dr. Humphreys, who resides not far from the deceased's residence, was sent for, and found him in bed. Except for a trifling injury, he had not previously attended him. He complained of some peculiar condition of his chest and heart, was afraid he would be paralysed, and referred his symptoms to a strong cup of tea, adding that upon several previous occasions tea had produced similar inconveniences. He complained of the dirty state of his tongue, which he said had been furred and dirty for a long time, and that he could not get it clean. He had been at the Wirral races the

day before, had dined with a friend, and while at dinner his hands were so very unsteady and twitching that he spilt some wine, which distressed him very much, as he feared his friends might think him drunk. Dr. Humphreys prescribed dilute prussic acid, and advised him to have nothing that day except milk and soda. He was called again to him that evening, and found him suffering from stiffness of the legs, for which he prescribed bromide of potassium and tincture of henbane. He called the next day; the deceased was better, but remained in bed, and concluding that it was a case of chronic dyspepsia, Dr. Humphreys ordered him a dietary in writing and Seymour's preparation of papain and iodin, one teaspoonful a day. On May 1st the deceased was much better, his tongue was clean, and the headache had disappeared. On Friday he complained of being worse, and that the medicine did not agree with him. Dr. Humphreys assured him he was better, and at the deceased's request allowed him to go to town and to have a Turkish bath. He met him in town that afternoon, but had no conversation. At midnight Dr. Humphreys was again sent for; the patient was in bed in great pain, which he referred to his thighs, hips, and knees. He had been sick, which he attributed to inferior sherry put into his Revalenta Arabica food. The sickness continued, and on the following Sunday, May 5th, Dr. Humphreys proposed a consultation, to which Mrs. Maybrick objected on the ground that he had had so many doctors and that they had done him little good. But Dr. Humphreys being puzzled with the case, and the deceased's brother insisting upon a second opinion, Dr. Carter was called in and saw him on Tuesday, the 7th. He examined him thoroughly, and found nothing wrong with the heart, lungs, liver or brain; diarrhoea was just commencing; the throat was much inflamed, red, dry, and glazed. The deceased complained of a sensation as of a hair in his throat, and some vomited matters and fæces were shown. Drs. Carter and Humphreys agreed that it was a case of acute dyspepsia resulting from improper food or drink, or both. On the 9th tenesmus was present, and there was looseness of the bowels, examination of the rectum causing such pain that it had to be abandoned. The symptoms strongly suggested some irritant, and about this time, circumstances exciting strong suspicions against Mrs. Maybrick having arisen, nurses were in attendance, with strict orders that the deceased

was to have no food except what they themselves prepared in the rooms. Dr. Humphreys tested some urine and fæces, with a negative result; Dr. Carter tested some Neave's food, with the same result; but in a bottle of Valentine's meat juice he got distinct evidence of arsenic, both by Reinsch's and Marsh's tests. It was too late, however, to save the life of the unfortunate man, who sank and died on Saturday afternoon. On Monday a post-mortem examination was made, Dr. Barron, pathologist of the Royal Infirmary, representing Mrs. Maybrick. There were no indications of any natural cause of death, and the appearances of the stomach, intestines, and rectum were those which would be produced by an irritant poison, such as arsenic. That the cause of death was an irritant poison was the opinion of all the three gentlemen who made the post-mortem examination; but Drs. Carter and Humphreys also expressed a decided opinion that it was a case of death from arsenical poisoning after hearing the result of the chemical examination by Mr. Edward Davies, analyst. That gentleman found arsenic in the liver, in the intestines, and in the kidneys, the total quantity in the abdominal viscera being estimated at one-eighth of a grain. Mr. Davies also found arsenic in the bottle of meat juice handed to him by Dr. Carter, the quantity being about half a grain. He found arsenic in many other articles sent him from the house, including a bottle of mixture made up from Mr. Fuller's prescription by Messrs. Clay and Abraham, a firm of Liverpool chemists, and proved the absence of any arsenic in another bottle of the same mixture found at the deceased's office, as also in all the bottles of ingredients from which the prescription had been made up. In the jug, basin and pan from which the deceased warmed and took his lunch at the office, Mr. Davies found distinct evidence of arsenic, from which he inferred that there must have been a very decided quantity of arsenic in the whole of the food, as he had obtained crystals of arsenic from the small fragment which remained adhering to the jug even after it had been washed. On comparing the specific gravity of the fluid in the Valentine's meat juice bottle with that of a fresh sample, Mr. Davies concluded that the arsenic had been introduced in a fluid form. A basin containing fly-papers soaking in water was found by the housemaid in Mr. and Mrs. Maybrick's bedroom covered over with a towel. It was shown that Mrs.

Maybrick had purchased fly-papers from several chemists, alleging that the flies were beginning to be troublesome, which was not correct. Arsenic was also detected on the front and in the pocket of a dressing-gown, on a handkerchief, and a bottle contained liquid with from twelve to fifteen grains of solid arsenic, also water and powdered charcoal. It was identical with some powder found in a packet and labelled "Poison for cats." A tumbler containing milk and a handkerchief was found to have between twenty and thirty grains of arsenic in it. A bottle of Price's glycerine also contained arsenic. Mrs. Maybrick was seen by one of the nurses to remove the bottle of Valentine's meat-juice into another room—afterwards found to contain arsenic,—to return with it in a very suspicious manner half hidden in her hand, and to replace it on the table. The nurse gave it to Mr. Michael Maybrick, who delivered it to Dr. Carter. The lunch taken on May 1st was wrapped up in brown paper and given by the prisoner to Mr. Edwin Maybrick, who gave it to his brother. The latter ate it in his presence, and complained of it as having made him ill. It was in the remains of this that Mr. Davies found the arsenic.

Dr. Stevenson, Professor of Forensic Medicine in Guy's Hospital Medical College, and Analyst to the Home Office, received some of the viscera to examine, and was the last witness called for the prosecution. His analysis confirmed that of Mr. Davies, with the exception that he estimated the proportion found in the liver as larger. He expressed his opinion that death resulted from poisoning by arsenic.

For the defence, Dr. Tidy, the Lecturer on Medical Jurisprudence at the London Hospital Medical College, who was called on the same day as Dr. Stevenson, contended that it was not a case of arsenical poisoning. He argued that the four symptoms—vomiting, purging, pain in the stomach, and soreness of the eyes—were absent, and that the small quantity of arsenic found in the body of the deceased was accountable for by the alleged habits of the deceased. Evidence from America was brought by two witnesses, who testified to the deceased having taken arsenic some years ago, and by a retired Liverpool chemist, who identified the deceased by means of a photograph, who deposed to the fact of the deceased having gone to his shop to have "pick-me-up's" containing doses of Fowler's solution. Dr. Rawdon Macnamara, of Dublin, also

gave evidence for the defence, contending that the deceased's symptoms did not correspond with those of patients suffering from poisoning by arsenic. Mr. Paul's evidence went to show that there was arsenic in the glazing of the pan in which the lunch was warmed, which might be set free by muriatic acid. He also contended that if arsenic had been present in the urine it must have shown itself by Reinsch's test which Dr. Humphreys employed.

Mr. Justice Stephen, in summing up, alluded to the partisan character of expert evidence, quoting also the old saying that "a physician was a man who put medicine, of which he knew little, into a body of which he knew less." He deprived the sarcasm of its sting, however, by the compliments which he paid to the various medical witnesses, the whole of whose evidence, as well as that of others, he went carefully through. At her own request the prisoner was allowed to make a statement. She stated that the solution of fly-papers was for a cosmetic, as her mother and some friends in Germany could have testified. She added that she put some white powder in the meat juice at her husband's request, and, as some of it was spilt, filled it up with water.

The jury were only absent from court about forty minutes, and returned with a verdict of "Guilty." Sentence of death was pronounced upon the unhappy woman, who throughout the whole of the long trial, and in a close court, in sultry weather, bore herself with remarkable firmness.

The case resembles in some points that of Wooler, in others that of Madeline Smith; but it has its own peculiar features. As in Wooler's case, the poison was arsenic, and it was suspected during the deceased's lifetime. But there was not the same delay in coming to a conclusion as to the real nature of the case, or the same performance of Reinsch's test with acid contaminated with arsenic. The cosmetic theory set up in Madeline Smith's case was again set up here.—*London Lancet*, Aug. 17, 1889.

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QUARANTINE.

From the report of the Minister of Agriculture of the Federal Government for 1888 we learn that a more efficient medical inspection of incoming vessels is now maintained at the different Canadian ports. At Grosse Isle no less than seventeen vessels were reported as having infectious disease on board, and of these nine belonged to leading passenger lines. The diseases so reported or discovered were smallpox, yellow fever, enteric fever, scarlet fever, diphtheria, measles and variola. The quarantine superintendent reports that the necessary precaution for the vaccinal protection of steerage passengers had not been thoroughly carried out by the ship surgeons for various reasons mentioned, such as absence of instructions from owners or agents, neglect of the ship surgeon, and inadequate supply of vaccine. In such cases the steerage passengers were examined at quarantine, and where necessary, vaccinated in accordance with the regulations which direct that no steerage passenger shall be allowed to pass the inspecting stations without furnishing evidence to the satisfaction of the quarantine medical officer of having been vaccinated within the seven previous years or having had the smallpox within that period. Five persons objected to being vaccinated. They were accordingly put ashore and kept at Grosse Isle under medical supervision until the period of incubation from the date of their last possible exposure to the infection of smallpox had expired. All told, there were 4,000 persons vaccinated at Grosse Isle last season, and smallpox was reported on one steamer. Vessels with smallpox on board were also detained at Halifax, St. John, N.B., and Victoria, B.C.

Whatever views may be held as to the efficiency of quarantine, there can be no doubt of the advantage, in a country like ours, of insisting upon rigid medical inspection, vaccination of immigrants, isolation of suspicious cases, and the disinfection of ships and clothing. By carrying out measures such as these we may hope to prevent the ingress of diseases not now known in the country, and prevent the spread by immigrants of the more common infectious diseases.

LEAD POISONING.

When Sir George Baker discovered that the cause of the Devonshire colic was the presence of lead in the cider for which that county was so justly famous, it was thought that lead-poisoning would become one of the things of the past. Unfortunately, however, the study of the various manifestations of saturnism lead us to the opinion that although there may now-a-days be less colic in Poictou and Devon, yet lead poisoning is still prevalent in both town and country to an extent truly alarming. Within the last few years we have published several well reported cases occurring in rural districts. Country practitioners are not too fond of putting their experiences into print, and the few reported cases represent a large number which have never seen the light. Again, it is reasonable enough to suppose that both in town and country very many cases fail to come under the notice of the medical man at all, while other cases may be treated without being recognized as being of saturnine origin. In Montreal the various forms of lead poisoning are very prevalent. The wards of the General Hospital are seldom without three or even four severe cases, and a still larger number are to be found in attendance at the out-patient department.

Moreover, we are of opinion that lead-poisoning is largely on the increase, and that preventive measures should demand the immediate attention of the local Board of Health. The origin of the poisoning, as related by the patients themselves, is in some instances to be found in the defective arrangements for the ventilation of those workshops where lead is used. Not long ago a paint factory in the city sent a case to the General Hospital which

ended fatally, and at this moment there is a workman dying in hospital from lead poisoning.

The local Board of Health should take this matter in hand, ask for reports of cases, investigate the alleged causes of the poisoning, and, where it is possible, do away with them.

THE ROYAL VICTORIA HOSPITAL.—The work of blasting the rock for the foundation of the new hospital is in active progress. The outline of the base of the building can now be made out. The approach to the hospital will be the head of Upper University street.

IMPROVEMENTS AT THE MONTREAL GENERAL HOSPITAL.—At a recent meeting of the governors of this institution it was decided to construct nurses' quarters by the addition of a Mansard roof to the building. By this means comfortable bedrooms will be provided for the hard-worked nursing staff as well as for the servants of the hospital. An efficient staff of trained nurses is an essential requirement of a modern hospital, and to secure recruits for such a staff, as well as to enable the committee to retain the services of reliable nurses, it is an absolute necessity that they should be well housed and, more particularly, well fed. A nurse's hours of duty are long, and are spent in an atmosphere not of the purest, it should therefore be an object with committees to provide every means of enabling these deserving women to pass their hours of rest in a wholesome as well as a pleasant atmosphere. The scaffoldings are already erected, and it is expected that the whole work will be completed by the 1st of November. It is probable that the old nurses' rooms in the annex of the Morland wing will be made to serve as isolation wards for cases of erysipelas.

APPOINTMENT.—Dr. H. S. Birkett has been appointed one of the Demonstrators of Anatomy in the Medical Faculty of McGill University. The college career of Dr. Birkett was one of great distinction. His accurate knowledge of anatomy, and the care and attention he bestowed upon his dissections, won for him the Demonstrator's Prize in Practical Anatomy. In the session of 1884-85 he did good work in the dissecting-room as prosector

and as student assistant demonstrator. In 1886 the Holmes Gold Medal was awarded him. After graduation, Dr. Birkett served one year on the house staff of the Montreal General Hospital, and subsequently spent two years in study in England and Germany. The appointment will go far to strengthen the teaching staff of this important branch of the medical department of the University.

Medical Items.

SPECTACLES AND EYE-GLASSES.—Dr. G. J. Bull, M.D., of the Faculty of McGill University, Montreal, has lately taken his degree in Paris, and chose for the subject of his inaugural thesis, "Spectacles and Eye-glasses." After having practised about twenty years in America, the greater part of which time Dr. Bull practised ophthalmology in New York, he came over to Paris, and perfected himself in this branch under the guidance of Dr. Javal, the celebrated ophthalmologist, with whom he worked at the laboratory of the Sorbonne. Those who wish to learn how to wear spectacles and eye-glasses should read Dr. Bull's newly published work, which is the reproduction of his thesis, containing, in addition, an introduction by Dr. Javal. The work is most interesting, and of great theoretical and practical value, particularly to those affected with astigmatism. According to the author, for some years a more precise knowledge of astigmatism has produced a complete revolution in the science of ophthalmology. He says it is important to draw the attention of the public to the existence of this optical defect, which is more frequent than myopia and than presbyopia, and which is corrected by means of special glasses, cut to measure, after the indications of the oculist. As regards myopia, Dr. Bull states that infants are not myopic; with very rare exception they become so with age, and more frequently because they acquire the habit of reading and writing at too short a distance. The eye, therefore, becomes developed in a defective manner. It is often said that myopia and presbyopia are two affections opposed and incompatible; but the author affirms that this is not the case, the real state opposed to myopia being hypermetropia. Dr. Bull is the inventor of a new optometer, a full description of which will be found in his

work, where other useful hints are given for the preservation of the eyesight.—*Paris Correspondent of the London Lancet.*

A DICTIONARY OF MEDICAL SPECIALISTS.—There was recently published in London a classified list of London practitioners who chiefly attend to particular departments of medicine and surgery. The editor is a member of the legal profession, and the principal result of the work is to demonstrate how dangerous it is to meddle with affairs of which one knows nothing. Practically it is a trades list, or what is called a classified business directory. We have not seen this work, but from what is said about it in the *Lancet*, the reading of it must be entertaining. The venerable President of the College of Physicians, Sir Andrew Clark, to take an example, is exactly defined in this dictionary. He is no longer the broad, general physician refusing to be shut out of any corner or cavity of the body where he can find any disease to battle against; he is a specialist, or rather he is three specialists in one. He is a specialist for children, he is great on the eye, and he is to be consulted specially on midwifery and the diseases of women. The profession must not expect to be able hereafter to consult him on general matters, but may take their cataract cases to him, or fly to him at night for assistance in cross-births. How convenient this book will be to the medical profession, and how helpful to the British public! Strange to say, we are not told the hours at which Sir Andrew Clark may be seen.

DOGOMATIC RECTITUDE.—To many practitioners whose student days were passed at the medical school of McGill University, it will be a mournful piece of news that a trusty servant of the college has been stricken with a malady which, regarded even in the most favorable light, is one of gloomy prognosis. It was, we believe, in 1883 that the present incumbent of the post of janitor, Mr. James Cook of Brighton, Sussex, England, succeeded the late Mr. Thomas Cook, formerly of Her Majesty's army. Students who were in college at the period of his assumption of office will remember that Mr. James Cook came provided with an efficient and painstaking quadrupedal assistant whose honesty of purpose and power of governing men equalled that for which

his master is so justly famous. All who have ever attended classes at McGill will grieve to hear that Cook's dog is suffering from symptoms of a very serious nature. The patient was at first submitted to the consideration of the members of the Faculty of the Veterinary School, and a diagnosis of *carcinoma recti* of the infracaudal variety was given. The constitutional symptoms, however, not being grave, it was decided by Mr. Cook that an expectant attitude suited the exigencies of the case. As time wore on, the general condition improved somewhat, and Mr. Cook became dissatisfied with the opinions of the veterinarians. The University Professor of Surgery was called in, and we understand that certain features in the case have arisen of such a nature as to enable this distinguished practitioner to give a more favorable prognosis, and to hold out the sufferer some hopes, if not of actual recovery, at least of mitigations of his suffering. This interesting patient has an intimate connection with the Medical Faculty. He is the son of the dog of the father of the Professor of Anatomy, by whom he was given to the Professor of Ophthalmology, who presented him to the janitor of the college, and he is the uncle of the dog of the Professor of Clinical Medicine.

BABY was HUNGRY.—A physician was called out of a sound slumber the other night to answer the telephone. "Hallo! what is it?" he asked, little pleased at the idea of leaving his comfortable bed. "Baby is crying, doctor; what shall I do?" came across the wire. "Oh, perhaps it's a pin," suggested the doctor, recognizing the voice of a young mother, one of his patients. "No," was the reply; "I'm sure it can't be that." "Perhaps he has the colic," returned the doctor, with well-simulated solicitude. "No, I don't think so," replied the anxious mother; "he doesn't act that way." "Then perhaps he is hungry," said the doctor, as a last resource. "Oh, I'll see," came across the wire, and then all was still. The doctor went back to bed and was soon asleep again. About half an hour afterwards he was again awakened by the violent ringing of the telephone bell. Jumping out of bed and placing the receiver to his ear, he was cheered by the following message—"You are right, doctor; baby was hungry."