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DELIVERED BEFORE THE CANADIAN MEDICAL ASSOCIATION, SEPT. 16TH, 1891.

BY T. G. RODDICK, M.D., PRESIDENT.

Gentlemen,—My first duty and desire is to thank the Association for the great honour done me in appointing me to preside on this occasion. The honour is all the greater in having been conferred during my absence at the Toronto meeting last year, although it would have pleased me better had one of the older members of the Association been chosen to fill the presidential chair. I find, however, that I am rapidly reaching that stage when the term "old member" may be truthfully applied to me, because I remember well that as a student in my final year in medicine I attended the first meeting of this Association, which was held in this city in 1867, and assisted one of the secretaries in recording the proceedings. Nor can I be accused of displaying a lack of interest in the affairs of the Association, having missed comparatively few of the meetings held in the past twenty-three years.

It is not my intention on this occasion to address you in an exhaustive manner on any particular subject in medicine, because that is not the function of a president. I wish simply to give expression to a few thoughts which have occurred to me as the time approached for delivering this address.

It is a great cause for regret to the promoters and old friends

of this Association that to it honours have not come with years. The success of such an organization as this can be gauged only by the influence which it exerts and by the gradual lengthening of its roll of members. It is true that occasionally the meetings are held at a considerable distance from the great centres, when the attendance might reasonably be expected to fall below the average; but it has been most noticeable that the last half-dozen meetings held in so-called Central Canada have been sparsely attended, and have been generally characterized by a lack of interest, which, to say the least, is disheartening to those whose desire it has been to make this a national association. I am aware that the explanation usually offered for this condition of general debility in the parent organization is the rapid and vigorous growth of the provincial associations, noticeably that of Ontario; but I fail to find in this a good and sufficient reason. Why has the British Medical Association not shown symptoms of decay because some of its branches have grown to almost unwieldly proportions? Can anyone suggest a stimulant that will infuse new life into this decrepit body of ours? Are we meeting too frequently? In answer to the last question, I am aware there has long been a feeling, especially among the profession in the Maritime Provinces, that our plan of meeting annually is a mistake. The reason for this contention on their part is not difficult to see, when we consider the vast extent of the country and the infrequent meetings held in their vicinity. Those living in the far western limits of the Dominion will have even greater reason to complain. It is a question whether the influence and usefulness of this Association would not be materially increased if the meetings were held *triennially* in some central city, as in the Capital itself. If this scheme were adopted the policy should be to encourage the growth of county and provincial associations, from which delegates would be drafted in large numbers to the federal body. Then the Dominion Medical Association would of necessity become eminently representative, and its deliberations, especially on questions of Education and State Medicine, would certainly carry more weight than at present. If this plan were decided upon the meetings could be

held in Ottawa, and in order not to tax the local profession in any way the Government might be asked to vote a small sum, say one thousand dollars, for the purpose of entertaining the delegates. I feel convinced that the members of the profession in Parliament would at any time give such a scheme their hearty support. The time has certainly arrived when a change of some kind is imperatively demanded in order to save the Association from absolute decay. It is difficult to arrive at any other conclusion when we consider that the average attendance for the past five years has been barely one hundred, while the number of licensed practitioners in the Dominion is over four thousand. I am most anxious that this subject should again receive your earnest attention, and I should be pleased to hear, after the completion of this address, a general expression of opinion regarding it. This Association should be one of the most powerful guilds existing on this continent. Its forces should be numbered by thousands, not by tens. Away, then, with local prejudices. Away with conflicting interests, and let there exist only that unity of purpose, that oneness of brotherhood which inspired the men who met here twenty-four years ago for the purpose of organizing this Association. Their idea was to follow up the grand scheme of Confederation in connection with our profession, and we shall be traitors to their memories (because the great majority of them have since passed away) if we fail to carry out their patriotic intentions.

In the name of the profession of Montreal, I extend to you a hearty welcome. Our American visitors we are pleased beyond measure to have among us, as on occasions of this kind only are we afforded an opportunity, in ever so feeble a way, of reciprocating the favours which are being constantly bestowed on us by the profession in the United States. To the delegates from the various provincial associations I would also extend a hearty welcome.

This is the fourth occasion on which you have honoured this city by your presence as an Association. You will have noticed many alterations and improvements since your last visit. Our population is now over two hundred and sixteen thousand, and

it is estimated that within another decade it will have nearly doubled. As you have passed to and fro in our streets you will doubtless have been much interested with the permanent pavement which has been laid during the past three years. One is apt to look on this sort of thing as a simple adornment or luxury, but to us it has a greater interest as a sanitary measure. It has now been demonstrated conclusively that the introduction of the permanent pavements (especially of the asphalt kind) has had much to do with lowering the sick lists and death rates of the great cities of London, Berlin and Vienna. What greater desideratum than to have animal excrement and other decomposing matter removed almost hourly from the streets during the hot season in our climate. Then when the snow has disappeared in the spring and left a refuse accumulation of months, it is satisfactory to know that this can be entirely removed over some miles of the most populous sections of the city. Our energetic City Surveyor informs me that of the one hundred and thirty-three miles of roadway which he supervises, seventeen miles will have been paved by the end of the present year, and that before three years more have passed upwards of forty miles of our streets will have been permanently covered, chiefly with asphalt. Thus in some districts will the microbe-bearing mud and dust become things of the past.

The high death-rate for which this city was notorious has decreased considerably in the past year or two. In fact, since the famous epidemic of 1885, when over three thousand of our population succumbed to small-pox, we have been becoming more healthy as a city. Nothing short of a plague will arouse some city authorities to a sense of their duty. Dr. Laberge, our very efficient and obliging Health Officer, has kindly furnished me with the following complete and interesting report of the birth-rate and death-rate per thousand of the population, as well as the number of deaths from zymotic and other diseases during the past five years:—

	1886.	1887.	1888.	1889.	1890.
Population.....	183,504	189,051	201,743	210,000	216,300
Births—Rate per 1,000 of Population.					
French-Canadians.	54.79	55.34	54.68	52..36	51.59
Other Catholics...	45.45	31.03	30.48	28.85	27.19
Protestants.....	23.96	25.53	25.16	25.27	23.25
	45.37	43.63	42.91	41.33	40.09
Deaths.					
	1886.	1887.	1888.	1889.	1890.
French-Canadians.	30.11	32.72	34.44	33.04	30 64
Other Catholics ...	24.02	25.51	26.70	21.57	21.42
Protestants.....	15.50	18.63	18.22	15.69	14.05
	25.36	27.96	28.86	26.60	24.80
	1886.	1887.	1888.	1889.	1890.
Zymotic Diseases...	1,270	1,743	1,619	1,525	1,301
Constitutional	716	695	783	789	799
Local	1,666	1,751	2,010	2,214	2,337
Developmental	847	920	1,107	917	808
Deaths by Violence.	156	177	241	152	120
	4,655	5,286	5,822	5,588	5,365

A brief analysis of this report is interesting. In the first place, with regard to the birth-rate, this will be noticed to have steadily diminished since 1886. In that year it was 45.37; last year it was 40.09. The fall is most marked among French-Canadians, although the Protestant showing is little better in proportion. Even this birth-rate compares most favourably with that of other countries. For instance, among native-born Canadians it is barely 17 per thousand, while that of foreign-born citizens is under 37 per thousand. The death-rate for all nationalities has been at length reduced to 24.80 per thousand. The mortality among French-Canadians, although very high, has never been so small as in 1886, being the year after the epidemic of small-pox. Doubtless the after history of all scourges would present a similar showing. To the improved system of sewage, however, is to be largely attributed any diminution in our death rate. There are now in this city one hundred and twenty-six miles of sewers. Since 1883, or in the short space of eight years, no

less than fifty-two miles of sewers have been constructed. Surely, if properly trapped and flushed, these should constitute a powerful factor in diminishing the mortality.

The Board of Health of the Province of Quebec, a very efficient body, organized some years ago by the Local Government, report an average mortality in the whole Province for the two years 1889 and 1890 of 26 per 1000. By comparison with the United States and England this is a bad showing, the former being only 18 per 1000, the latter 19 per 1000. The report from which I quote makes the statement that there are 152 parishes (being one-fourth of the total number), the average mortality of which exceeds 30 per 1000. For country places this is simply appalling. The Board attempts to explain these enormous figures as follows: "We do not hesitate to say that this mortality is due to the unhealthy state of the greater number of the cities and country-places (bad drainage, bad water supply, defective ventilation, etc.), but chiefly to the spreading of contagious diseases, against which no care is taken. Taking diphtheria for instance, we have ascertained by declarations from the clergy and by reports on hand that in 1890 no less than four thousand persons succumbed to this disease; for 1889 the figures are still higher. Add to these, deaths due to typhoid and scarlet fevers, croup, measles, and all other contagious and preventable diseases, and you may have an idea of the enormous number of lives that might have been saved if the means suggested by hygiene and experience had been made use of—*i.e.*, proper improvement of unhealthy localities and dwellings, and, in regard to contagious diseases, the notification, isolation, and disinfection such as required by the present by-laws" In another part of this admirable report reference is made to the aid expected from the medical profession. It points out how incumbent it is on physicians, "in every case of contagious disease to which they are called, to see that the necessary notification is made, and that the other prescriptions of the by-laws, viz., isolation, quarantine, disinfection, etc., are strictly observed." The report charges the Protestant population with having no regular and systematic registration of births and deaths, and hence it

has been found impossible to prepare complete statistics for that portion of the community. If this statement be correct (and I have every reason to believe it), means should be at once taken to correct so grave an irregularity.

The growth of state medicine should ever be a cause for congratulation among us. That it is gathering strength every day is evidenced by the voluminous annual reports of our city and provincial Boards of Health, and by the marked increase in the variety and value of their contents. See, too, the large and influential gathering in London the other day, where all the nations were represented for the purpose of discussing the great problems of hygiene. At its present rate of progress, hygienic law will soon interpenetrate every phase and period of our civilized existence. The sanitarian now strikes at the very beginnings of life. In some European cities the puerperal woman is supplied with printed forms on which to record the physical condition and progress of her offspring. As the child develops his progress is attended with a constantly increased watchfulness. In the school-room he is allotted a certain number of cubic feet of space. His physical condition is zealously watched and in some places accurate anthropometrical observations are taken to show how his growth is keeping pace with his intellectual development. Then measures are taken to protect him from the contagious diseases to which he is liable, new methods of prophylaxis being constantly devised. And so he is guarded until he reaches the age of citizenship, when he may be reasonably expected to become himself a guardian of the public health. While on this subject, it has often occurred to me, and doubtless to others also, that the practice of opening our city schools on the first day of September is open to serious objection. It happens usually that the first few days of this month are hot and sultry. Children are brought directly from the health resorts to crowded school-rooms, and the consequence is, before the winter's work has well begun, the bloom of health has disappeared in many cases, and often they enter on a season of ill-health. If the children were brought home at the usual time, and given two weeks to become again acclimatized, as it were, to city life, the sick lists would, in my opinion, be much shorter.

You will be interested to know that Montreal is fast becoming a great hospital centre. Up to ten years ago all the general medicine and surgery of the city and surrounding country were looked after by the Montreal General Hospital and by the Hotel Dieu Hospital. The Western Hospital, devoted to the diseases of women, had, it is true, been in existence for some time previously. With the establishment of a branch medical faculty of Laval University just ten years ago the Notre Dame Hospital sprang into existence. The latter, which has done excellent service, has now a capacity of one hundred and twenty-five beds. The authorities of the Montreal General Hospital are now building two substantial pavilions which will accommodate about one hundred male and female surgical cases. Spacious and splendidly equipped operating rooms and an accident department will be attached. The estimated cost of this addition to the hospital is in the neighbourhood of one hundred and ten thousand dollars. One of the pavilions will be named after the late Dr. Geo. W. Campbell, who was for so many years Dean of the Medical Faculty of McGill University. Soon after the death of Dr. Campbell, his old friend and grateful patient, Sir Geo. Stephen (now Lord Mount-Stephen), handed the treasurer of the hospital the sum of fifty thousand dollars to be devoted to this purpose, with the proviso that the Professor of Surgery of McGill University should always control a certain number of beds in this pavilion. The other pavilion is called the Greenshields Building, the late Mr. David Greenshields having willed upwards of fifty thousand dollars for the purposes of hospital extension. With this increased capacity, and with the excellent system of nursing recently inaugurated, this institution may be expected to maintain its wide reputation as a clinical hospital. These are the plans kindly sent for your inspection by the architect, Mr. Hutchinson.

In July 1887, the Jubilee Year of our Gracious Majesty Queen Victoria, those large-hearted, open-handed, and withal loyal men, Lord Mount Stephen and Sir Donald Smith, wishing to commemorate this remarkable event, and to impress it indelibly on the minds of their fellow-citizens, conceived the charit-

able notion of erecting an hospital to be called the Royal Victoria Hospital. Accordingly each placed the princely sum of five hundred thousand dollars in the hands of a body of trustees, some of whom only were named by them. The city furnished the site, and one of the most experienced hospital architects in Europe, Mr. Saxon Snell, was engaged to prepare plans. The objection being made to the original site that it was in too close proximity to the reservoir, the Founders purchased an adjoining piece of land, at a cost of $86,000, on which to erect the building, that donated by the city to be used as part of the hospital grounds. The latter will comprise in all twenty-three acres, with a frontage on Pine Avenue of 820 feet. Ground was broken on the 18th June, 1890, and the buildings are under contract to be completed in May of next year. The cost will be in the neighbourhood of $600,000. There will be accommodation for two hundred and fifty patients, exclusive af private patients. Through the kindness of Mr. Robson, secretary of the Board of Trustees, I have secured a set of plans of the hospital. which will be open to your inspection during the meeting.

It is expected that among the many modern improvements for the cure of the sick which will be introduced into these new hospitals, proper provision will be made for baths of all descriptions. In connection with the new Hamburg Hospital which I visited last year a most elaborate system of baths has been instituted. I found patients suffering from extensive burns and septic conditions of various kinds lying immersed in weak antiseptic solutions, many of them having been there for days. In the same building arrangements are also provided for administering hot air, vapor and alkaline baths of all descriptions. So in Vienna, in connection more particularly with the skin department of the great Krankenhaus, similar arrangements are provided.

In this connection it has often occurred to me that we, as a profession on this side of the Atlantic, set too low a value on those mineral springs with which Nature has so abundantly supplied us. Patients, as a rule, are allowed to choose their own

spa, and no restrictions are laid on them with regard either to the quality or quantity of the water consumed, or the number and duration of the baths. As a consequence much harm is often done. I had occasion last year to visit two of the most renowned watering-places in Europe—namely, Carlsbad and Marienbad—and was very much impressed with the systematic and scientific manner in which the waters were taken. No patient thinks of going to either of these spas without proper advice, and before taking the cure usually consults one of the local physicians, because of his supposed intimate knowledge of the various springs and of their therapeutic action. Then the diet is properly regulated. Thus at the cures referred to, butter, salads and fresh green fruits, for example, are interdicted, as they have been found by experience to interfere with the advantages obtained from the waters. So with the baths everything is done in the most systematic fashion, and consequently nothing but benefit usually occurs from their employment. We have in our own country several mineral springs of decided therapeutic value, in fact some of them are equal in potency to the most renowned European Spas. At least five are situated within a radius of seventy miles of this city. Scattered over the Dominion, we have them of all descriptions—hot and cold—saline, alkaline, sulphurated and ferrated. Some of them have very distinguishing characteristics, as seen, for instance, in the large percentage of silica in the waters of both Caledonia and St. Leon. But there is a decided lack of interest, if not actual lack of faith evinced by the profession as a whole towards these wonderful remedies that Nature has provided for us,—these solutions which the chemist has hitherto failed to imitate. The fact is, we seldom take the pains to acquaint ourselves sufficiently with either the composition of the waters or the character and suitableness of the resorts to which our patients drift. Many of these springs have low marshy surroundings, and as a consequence the rheumatic or aguish patient in visiting the cure has his trouble increased ten-fold. We constantly meet with renal and pelvic cases where the symptoms have been aggravated through error in the choice of the mineral spring resort. It is my experience

that prostatic hypertrophy is constantly followed by acute retention in old men who indulge too freely in certain waters. Hence the necessity for carefulness and discretion in this matter. My object in dwelling at such length on this subject is mainly to endeavour to dispel that feeling of unconcern which I think exists in the profession regarding it, and also to enlist the services of those who may have opportunities for investigating the properties of these waters in order that certain reliable data may be obtained for the guidance of the profession.

To deliver an address in connection with medicine at this time without referring in some way to the great German bacteriologist, would be like playing Hamlet without the Prince. Since this Association last met, tuberculin, that great modern medical mystery, has come and gone. The latter part of this statement will doubtless be challenged by some of my hearers. That tuberculin came, there can be no manner of doubt; and with what a rush did it come. One Western editor described it as a "germanicidal tornado." There are few among us who at one time would not have given some dollars for a few tenths of a cubic centimetre of the one per cent. solution. The medical literature of the past ten months will be strange reading twenty years hence. Who can forget the enthusiasm with which Koch's first announcement was received and the excitement which pervaded all Christendom during those two or three winter months. "To Berlin!" was the universal cry. Then quickly came the stage of scepticism and disbelief, and before six months had passed the indignant cry was raised, "Away with Koch's lymph." Who does not sympathise with Koch? That genial, modest, earnest man, whose only fault was in being too precipitous. That tuberculin in its present form is a liquid possessing most dangerous properties has now been conclusively demonstrated. Mr. Watson Cheyne, in his very candid report presented before the British Medical Association the other day confirms the conclusions of Virchow and other authorities that its hurtful action in many cases outweighs its good effects to such an extent as to lead to its abandonment or preclude its employment. Further, he states he has of late become fully convinced that tuberculin

not only fails to produce immunity, but actually, in many cases, apparently predisposes the body to the tuberculous infection. This latter charge is the gravest yet made, and by one who for a time was almost as enthusiastic as the discoverer himself in his belief in the remedy.

Kaposi, at a meeting of the Vienna Dermatological Society on March 11th, stated that in cases of lupus treated by tuberculin he had noticed a remarkable increase in the growth of old lupous infiltration and the development of new nodules on the margins of affected parts, with a rapidity which he had not before observed. Usually any new formations in lupus took place gradually, either within the previously affected parts or close to their margin. In a patient treated by tuberculin, Kaposi demonstrated to the Society growths of sometimes isolated and sometimes grouped lupus nodules at a considerable distance from the previously affected part. In one patient with lupus of the nates the new nodules, developed under the influence of tuberculin, occurred over the region of the stomach.

We were fortunate in this city in securing a supply of the lymph early, and we proceeded at once to use it in a variety of cases in the General Hospital. It was subsequently used in the Hotel Dieu and in the Western Hospital. The most careful observations were taken and a fair trial given to the remedy, but before two months had elapsed we found it advisable to discontinue it, the results being in all cases unsatisfactory, and in two or three actually disastrous. Koch has experienced a shock in his marvellous career that would upset most men, but we have faith in him, and believe that his tuberculin, stripped of its dangerous elements, will yet perform the wonders which he once believed it was capable of.

In the great and ever present question of medical education, there appears to be a general advance all along the line. The Medical Council of Great Britain has, after much deliberation, decided upon a five years curriculum, the student to have the option of spending the final year with a registered practitioner or in attendance upon two (at the least) special hospitals, which are to be approved and recognized for the purpose. In the

neighbouring Province of Ontario a somewhat similar regulation has come into force. Here the fortunate holder of a degree in Arts may obtain his medical diploma at the end of the fourth year. Others have to wait an additional year. The Council is to be congratulated on the endeavour thus made to improve the quality of the medical student. But with regard to the additional year, besides entailing hardship upon poor men, it will be lost time in the great majority of cases. In the first place, graduates of limited means who cannot afford to go abroad will have difficulty in finding practitioners willing or able to take them. The newly-fledged, even though he may not be able yet to flaunt a sheepskin, is looked upon now-a-days usually with feelings akin to horror by the staid old country doctor, to whom the new fads are unknown. The latter has a constant dread of being discounted by the new comer, and hence he would usually prefer to have no dealings with him. Thus in many cases—perhaps a majority—will this additional year be made to count for naught. It is to be hoped, therefore, that the Medical Council of Ontario will adopt other means of improving the curriculum without extending the time for medical study.

The Medical Faculty of Medical University will, in all probability, soon demand two summer sessions—one between the first and second years, the other, which has been in operation for some time, between the third and final years. The time thus spent will be practically equivalent to an additional year.

Our American neighbours are at last awaking to the great necessity for reform in the matter of medical education. Two or three of their Universities have always been in the advance guard, but the rank and file have been far in the rear. The University of Harvard and of Pennsylvania, the Jefferson Medical School, and the College of Physicians and Surgeons of New York have all recently extended their medical curriculum to four years. These will doubtless soon be followed by others throughout the Union.

Medical women have evidently come to stay. In some parts they have received a hearty welcome. In this conservative old city they were obliged to wander about for a very long time

before they found a resting-place. Why will woman not be content to abide within the lines where nature placed her? No one doubts her intellectual abilities, in fact when pitted against those of the other sex they have constantly proved superior. If women would limit their study and practice to certain subjects, more particularly midwifery, they would be welcomed to the profession, because it is quite noticeable that as specialism advances there is a constantly increasing desire amongst medical men to shirk the ordinary obstetrical practice. With well educated *maternity physicians*, as they might be called, having a thorough knowledge of the anatomy and physiology of the pelvic organs, and being well grounded in diagnosis and in the most approved antiseptic measures, even the general practitioner would soon feel that he had a helpmate of considerable value. I read an article the other day describing a number of cases of abdominal section performed by a Mrs. Dr. ——. To see a woman groping elbow deep among the entrails of another suffering sister must, indeed, be a harrowing sight.

Now, gentlemen, I would conclude this very desultory address by simply referring to the havoc done amongst us as a profession, during the past year, by the grim destroyer—Death. I may not recall the names of all those who, having once been members of this Association, have joined the majority, but I find missing from the roll-call Mackay of Woodstock, George Archer Tye, John Madill, and Edward Trenholme, Richard Lea MacDonnell, Thomas Anderson Rodger, Joseph Ricard, and Robert Townsend Godfrey, all of this city. Of these, the last named only can be said to have reached the limits of old age. Trenholme and Godfrey were among those who organized this Association, and the former was a very constant attendant. Tye was a most active member, having been local secretary and, later, vice-president for the Province of Ontario. MacDonnell and Rodger were both prominent at the meeting last year in Toronto, the one as reader of an important paper on "Cardiac Complications of Gonorrhœal Rheumatism," the other as chairman of the Surgical section. These were taken from us while still in the very prime of life. Let us cherish the memory of all, and while we

throw the mantle of charity over their faults, if any they had, let us try and emulate the many good, noble and manly qualities which were common to all.

HEREDITARY PREDISPOSITION OF NERVOUS DISEASES.*

By A. M. McFarlane, M.D., Ashton, Ont.

As comparative anatomy has taught us much that is interesting and instructive on the subject of anatomy, so, likewise, I think many suggestive hints and illustrations may be gathered by the study, comparatively, of the various tissues of the body, tissues differing in their component elements, their structure, and their functions, yet, all at once, existing and impelled beneath the same natural forces that call forth, dominate, and destine all organic matter.

In approaching, therefore, the study of the nervous system, I do not wish to do so with the idea that it is that separate and distinct, special and peculiar structure, whereby an unknown medium manifests itself, but simply that it is tissue—organic tissue,—part and parcel of one harmonious organic being, subject to the same laws of existence, capable of the same stimulation and exhaustion, development and decay, as are its more subordinate associates. To me, therefore, as a physiologist, brain stands as but a tissue, and mind as the manifestation of its function—tissue most highly developed in its structure, and incomprehensible in that function.

But, looking on being in this comparative sense, we observe that in all its tissues capable of expressing function, the exhibition of such function becomes in each subservient to this one principle, viz., relationship with things external or internal. By being brought in relation with these circumstantial surroundings, impressions are reeeived by the tissues, which, in turn, respond in their own peculiar fixed reaction. This is the power of stimulation, and may be summed up in two words—*Irritation* and

* Read before the Bathurst and Rideau Medical Association, July 15th, 1891.

Reaction. Possibly the expression of all function is dependant on this power, directly or indirectly, consciously or unconsciously.

The brain has running into its structure nerves of stimulation, viz., the nerves of the special senses. The stimulation of any one of these may arouse the brain into activity, and, with that activity, appears its function. Example: The sleeping mother is awakened by the scream of her child. The brain, in other words, is thrown into activity by the first appreciation of the special endings of the auditory nerve. The thrill is carried by the auditory nerve to the auditory centre; this centre, in turn, transmits to the cerebrum; here, by the same quiver that quickens all, that strange, unbridged chasm, that mysterious boundary between the physiological and the psychological, is spanned, consciousness is aroused; the cerebrum communicates to the motor areas, and the motor areas, through the various tracks of the brain and cord, to the muscles called upon to execute the purpose of her judgment. This is truth. Pathology has traced the course of the nerve fibres. Such, then, is the history of many actions. To the brain direct stimulation, to the muscle indirect. Many examples could be adduced, but enough is always sufficient. The special senses furnish examples of first stimulation, often merely from appreciation of circumstance. Food, drugs, etc., furnish many more; in fact, much pertaining to pathology, as well as to medicine, has its roots grounded in this principle.

Thus, then, we find man's state made up of these two factors:

I—An impressionable, irritable mass of matter, not altogether restricted to the nervous system.

II—Surrounding circumstances bearing influence on this matter.

Again, I say, irritation and reaction—the reactions which follow constituting the life's history of the individual. I propose, therefore, to trace what of hereditary predisposition to nervous diseases it may be possible on this occasion along these two lines of thought.

First, then, of tissue. It is not my intention to weary you with the anatomy and physiology of the brain, nor yet to enter into the hypothetical reasonings of the metaphysics of its function,

but simply to remind you that the brain is a mass of cells and nerve filaments in a homogeneous structure. It has been computed, so says Gowers, that there are upwards of 800,000,000 of these cells in the cortex of the brain alone; that these cells are all intimately connected by nerve filaments, if not directly, at least by media, and none are isolated; that these are again grouped into areas, these areas being directly connected and bearing influence the one upon the other, yet each, in that anatomical connection, meeting a corresponding functional association. That there is a material difference in function, and particularly in susceptibility, and possibly in elements within these areas, I think is evidenced by the action of drugs, certain drugs selecting certain portions of nerve-tissue and bearing influence on certain functions.

But what of the cell itself, protoplasmic, *possibly* automatic (?), irritable, susceptible, and responding to many influences. How does this compare with the amœba (which we may observe during life activity, for we cannot observe the brain cell thus). Protoplasmic, automatic, irritable, appreciative of surroundings, seeking and assimulating food, secretory, metabolic, respiratory and reproductive. The blood, it must be noticed, performs many of these functions for the brain cell, even as the mother for the fœtus. But what is there that we observe in this protoplasm? Surely the shades of preception and comprehension, scarcely the intelligence we conceive of in the concrete, yet possibly in the abstract; the accumulated intelligences of millions of such acting harmoniously together might account for the concentrated power of intelligence in man. The single cell of the battery is scarcely appreciable; the combined action of thousands burns to a crisp in the augmentation of its power. Facts go to prove this. The more brain surface, the more cells; the more cells, the more intelligence follows.

Further, I would like to point out that disturbance of function or organic state of one cell produces disturbance in possibly many others, until its wave or thrill is lost or repelled by others acting rationally. This, no doubt, is the theory of *inhibition*. Combined action of many cells may overcome the rational state

of affairs and produce widespread disturbances—*nerve-storms*. There are many examples of this in reflex disorders resulting in widespread confusion of nerve force. But we have noticed that these cells are connected by nerve filaments; this implies that they are also connected in force or function; this further implies channels of communication existing between them. Pathology proves it, for with destruction of the cell the filaments therefrom degenerate. The cell itself, then, is the focus of nerve force—force aroused within a certain cell selects by adaptation a certain fibre from among the millions presented to it as its channel of transmission or communication. Habit adopts this channel. Mechanical training exemplifies this fact. Observe the musician. At first it is with difficulty, hesitation, and many errors that he fingers on the instrument the music before him, until these channels become selected and thoroughly adopted, when the act becomes almost unconscious. If we accept this theory as true and correct, it seems to me equally applicable to thought. Reasoning on a subject new to us is at first exceedingly difficult and obscure until the channels of communication among the higher intellectual cells become also selected, when it becomes comparatively easy. The more we become educated, the more numerous and varied become these channels, until thought itself may become unconscious. Further, it seems to me, if we extend this theory, much of memory might be accounted for in this way, —we lose from memory certain ideas or actions, because their channels, once trained, have become neglected and obliterated, or, we may partially lose them, because the chain of thought has deviated to other channels, the switching off of one cell in the chain of thought might alter completely the nature of that thought. Too often the truth may have deviated in this way.

What bearing, then, has this on the disturbances of nerve function? Evidently this. The destruction of function or organic structure of one cell, or set of cells, within the chain of thought or reason, will produce a deviation from that which has been adopted by adaptability, and, therefore, that which must be considered the most rational. But this deviation of force may cause, by taking new, uncertain, and possibly erroneous channels—

even as the blood-current through the anastomosing vessels round a thrombosed artery—may cause, I say, marked eccentricities in thought and action that we must regard as irrational.

What, then, can be said of the hereditary transmission of this state. I have nothing to say of heredity in general, only this: that in all Nature the seed reproduces itself in striking likeness to its parent. But by the beautiful theory of evolution we are taught that Nature adapts herself most suitably to the existing circumstance of all time. If circumstances never changed, then we might look for perfection in Nature; but they do change. Unhappy and untoward circumstances and illegal influences occur; these produce error of function; persistent error of function—if not actual disease—certainly ends therein. I shall refer to this again. These errors are not only capable of transmission by heredity in the tissues themselves, but of further propagation and rapid increase by the persistent and hereditary action of those same influences which were the first origin of disturbance.

This, then, brings us to the second thought—viz., circumstances and influences. In other words, causes acting upon this tissue already unstable through the laws of heredity. Strictly speaking I should confine myself to those influences which may be transmitted from one generation to another, under the bane of which father and son alike exist. I will divide them, however, into—I, Hereditary; II, Occasional or Accidental. In speaking of the latter, I will merely mention some of the more important of them, as I wish to refer to them later on.

The first, and possibly the most important, hereditary influence I wish to speak of is Education or Training. As the teaching of the good mechanic is impressed upon the apprentice in the best execution of the work, so also is the mode of thought of the teacher impressed upon the pupil. We think mostly after the manner of our teaching. Apply this to the children of the irrational. Are not the eccentricities of the parent early impressed upon the child? It is said that the disposition of the nurse may affect the after destiny of the child within the cradle. Ideler says: "There are cases of *so-called* hereditary insanity which

can be traced, not so much to the transmission of organic disposition as to the subsequent psychical continuation of peculiarities of character, inasmuch as certain eccentricities, odd and peculiar views and maxims, have been presented to the child for imitation." Influences of this nature, transmitted by heredity from the first, are decidedly adverse to the development of a healthy nerve apparatus in harmony with the external world. Again, we know that girls predisposed by nervous temperament, being brought in contact with hysterical associates, become in turn hysterical. This may extend beyond even the predisposed. I think it is reported where whole classes of school girls have become hysterical through the influence of possibly a few associates. It can hardly be judged that all were of predisposed temperament. If this, then, be true, wherein are its bounds? Not only children born into families where nervous affections are hereditary, and where from one generation to another they are persistently under this influence, but even children born into localities where nervous diseases predominate through intermarriage or otherwise, are from the first under unfavourable hereditary circumstances. I believe this to be an alarming truth. Unless of exceedingly strong nervous temperament our associates by their training and examples certainly influence us. Many of us have early derived our religious principles and political hallucinations from this source. Can, then, function disorder be aroused by imitation? If so, then actual disease may be its sequence and disastrous termination under circumstances favourable for its further development.

The next hereditary influence we will notice is rationality. Under this we must regard climate, religious creed, form of government, public morality at large, previous lot or social standing, and degree of civilization. It is impossible, on this occasion, to refer to all in detail, but I must refer briefly to modern civilization. Guistain says: "The present state of society in Europe and America keeps up a general half intoxicating state of cerebral irritation which is far removed from a natural and healthy condition—thus many become insane." Greisinger also says: "I would rather coincide with the opinion

of most medical psychologists that the increase of insanity in recent times is real, and quite in accordance with the relations of modern society." What he says of insanity is no doubt true of most nervous affections. The too rapid change in existing conditions toward excessive activity above that which Nature for ages has adopted has probably a powerful influence on the disturbance of function, and finally the production of disease.

Locality may be classed as an hereditary cause, but of minor importance. Still, many nervous diseases, as asthma, hysteria, and even insanity, are often much benefited by change of locality and surroundings—a change which possibly might have more influence on *hereditary* insanity than is at present conceived. I refer to possibilities of ultimate improvement by the alteration of those hereditary causes which tend to perpetuate the disease —close intermarriage under the restrictions of hereditary laws, such as the Jews, Quakers, and even the aristocracy.

Chronic diseases, in so far as they are hereditary, by sapping the resisting forces, may be hereditary causes. I will speak of phthisis in this respect again.

II. *Occasional or Accidental Causes.*—Such are social position, employments (some callings are markedly exempt, while others are as markedly productive, as prostitution), age, sex, celibacy, bodily condition or constitution, bad habits, as drunkenness, masturbation, etc., overwork, anxiety, grief, disgrace, and many others that I cannot even mention here. Yet there is one more that I must make special reference to before closing, viz., intermarriage among families already predisposed.

I will make my statistics brief, because I am not fond of statistics unless in verificatiou of argument. There is considerable variance—Burrows finding hereditary traces in six-sevenths of his cases of insanity; Moreau in nine-tenths; Bergmann in one-fifth direct, one-third direct and indirect; Hagen, in 187 cases direct from father and mother, in one-eighth to one-seventh, indirect in one-third; Martini had in 25 years, amongst the higher ranks, three-tenths (nearly one-third), amongst the middle and labouring classes something over one-fourth; Esquirol found it in the poor in more than one-fourth, in the rich in about three-

fifths; Guislain in over one-fourth his cases; Brierre in almost one-half; Webster, in Bedlam, about one-third; Skae (Edinburgh), in 218 cases, a little over one-third; Bini, in Florence, in about one-fourth. The main evidence then seems to be, that of all cases presented at the asylum, hereditary predisposition is manifest in from one fourth to one-third of the cases. In private practice I am satisfied the percentage would be much higher, from more accurate and reliable information of family history. These statistics, moreover, refer only to the insane, and do not include that great mass of beings whose mental eccentricities—proclivities towards crime, drunkenness, and extravagance of ideas and actions—we must regard, if not as insane, at least as irrational, and to be traced as directly to hereditary transmission as is insanity. This latter would extend the field of hereditary predisposition far beyond that in the above statistics. The error here in the proper comprehension of the magnitude of this evil is, that in these statistics we have been tracing the ancestors of certain cases presented at the asylum, whereas I should prefer rather to trace their progeny, and watch therein the vast amount of evidence of hereditary transmission, believing that thereby we shall obtain much more satisfactory evidence on this subject. With this object in view, I intend now to present to you a few of my own observations along this line.

Within the field of my practice there are at least five families who have afforded me all manner of nervous diseases, from acute insanity down to the simple neuralgias. These families have, on the whole, been exceedingly reproductive. I propose to take up the history of one of the most prolific, as giving the most reliable evidence. I have prepared two geneological trees, which I shall now pass round. The first is a general outline of the family. In the second, I wish particularly to call your attention to an example of error in marriage by persons already predisposed, and its terrible results. I have not entered into the special pathological states on these charts, because I do not think it necessary or wise to do so.

Of the heads of this family I have been unable to obtain any history. They left five sons, who all came to this country and

settled in my vicinity. Through the descendants of each of these sons, as shown on the chart, there is, here and there, breaking out manifestations of that hereditary condition we have been considering; but the one branch in particular to which I wish to point your attention is the third son, who committed suicide at the age of 58, and whose whole family present such an unstable mental state. This son married a Miss C., in whose family also there is marked evidence of an hereditary taint. By this lady's brother there were two sons, both of whom are peculiarly eccentric. In the elder son's family the most marked features are dullness of intellect and peculiarity of ideas In the second son's family it is much more marked. One idiot (who died last summer); one girl and one boy silly, the girl exceedingly so; one girl and one boy peculiar; three boys and one girl fairly up to average, the latter being children. From the members of such a family this man, who afterwards himself suicided, selected his wife and entered into wedlock. With what results? Six sons and four daughters. Of these it can be said only one was truly rational, and she died young of phthisis. One son and one daughter died in the asylum; another son sojourned there for a number of years—he is now at home, harmless, but nevertheless insane. Two other sons, I have been repeatedly informed by their wives and families, will have to be removed, as their lives are in jeopardy, suffering from hallucinations, sleeping with axes beneath their beds, watching for imaginary enemies, and at times exceedingly abusive of those around them. The two other brothers are following much in the footsteps of their elders, and at their ages will not, in all probability, be one iota more rational. The two other sisters are said to be odd, but I have never seen either of them myself. But the trouble does not end here. Every one of these ten children, except the youngest, married and have offspring. It is impossible for me here to trace their history, I will refer you to the chart; suffice it to say that they are the victims of all manner of nervous affections. They are still young, so that the evil cannot yet well be calculated.

The first point I will call your attention to on the general

history is the diversified character of these affections. Greisinger has pointed out as follows: "We do well not to conceive of a family predisposition to mental disease *as limited to these alone*, but rather to consider it as a predisposition to serious cerebral and nervous diseases generally. It is not at all rare to see in a family certain members suffering from insanity, others from epilepsy, severe spinal irritation, hysteria, neuralgia, etc." Rush relates the case of a mechanic who had two severe attacks of insanity, the latter ending his life. His six children all suffered from severe headaches, but none presented the least traces of insanity. The mother may have been healthy, yet, although the predisposition was there, it manifested itself in entirely another form. Greisinger says: "In many cases we notice that this disposition seems to be able to manifest itself in many and various forms; occasionally, even, we see through several generations pathological states of the nervous system which gradually increase, and finally end by passing into insanity proper." Not only is this fact evident, but also that persons in earlier life, at first afflicted with epilepsy, hysteria, neuralgia, etc., later on gradually develop into that much more deplorable condition—viz., insanity. The history of this family itself has furnished not a few examples of this fact. This is the persistent disturbance of function ending in disease referred to further back. This, then, might point out the fact that if insanity, as Greisinger has remarked, may be develeped from minor nervous affections, gradually increasing in succeeding generations, then in preparing statistics on the hereditary predisposition of insanity, we must not confine it to those ancestors who alone exhibited signs of insanity, but also extend it to those in whom manifestations of various other mental and nervous affections beforetime existed. The complete escape of some members, also the earlier manifestation in some than possibly even the parent, has been attributed to differences of circumstances bearing upon them.

The next point I would call attention to is sex. Baillarger has shown by statistics of 453 cases that insanity is more frequently transmitted by the mother than by the father. He found

also that when the mother was insane, more of the children became so, and further, that while insanity is as frequently transmitted from the mother to the son as from the father, it is twice as frequently transmitted to the daughter. In the history of this family the opposite might appear to be the case, the fathers transmitting the disease. There is an evident flaw, however, in the history presented, because of the fact that the sons remained the tillers of their father's farms, while the daughters married and took their departure, in so far at least that I have been unable to trace them in the time allotted for this paper. Again, the disease being transmitted as directly from father to son as from mother to son, we cannot wonder at this result, when we consider, moreover, that, with probably the one exception, the mothers were of better stock; had the opposite been the case, we might have looked for twice the amount of insanity in the females and equal in the males.

You will notice on the chart that quite a number have died of phthisis. The connection between phthisis and nervous diseases, especially epilepsy, has been followed out with some persistence in order to trace an affinity, but with very little results, if any, owing to the great prevalence of phthisis.

Drunkenness has been most frequent in this family. Whether we are to regard this fact as a species of mental weakness or not I cannot say. Gowers says: "Intemperance is possibly also due in many cases to a neuropathic disposition, but is so common among the poor that its existence can hardly be taken as evidence of disease."

The children of parents actually suffering from mental derangements, or even drunkenness, at the time of conception, are more frequently affected. Greisinger says: "It appears, nevertheless, that hereditary influences may be highly and quickly increased by drunkenness, by disease, and, in short, by various intercurrent disorders of the parent at the time of conception."

In reference to the transmission of predisposition to crime, suicide, etc., Greisinger states the following: "Experience has frequently shown that the inclination to suicide, which often comes on in all members of a family at the same age, communi-

cates itself by hereditary descent. We will also easily comprehend how that weakness of character and excessive passionateness, which by hereditary tendency is so frequently shown, may, by the co-operation of unfavorable circumstances on individuals so affected, beget criminal actions. In like manner we occasionally see in certain families insanity, suicide, crime, the result of the intimate connection of certain dispositions of character combined with each other, alternating in a deeply deplorable manner."

There is but one other point I shall take up, and that is the intermarriage within families wherein this disposition exists. I would call your particular attention to this point. On the second chart I have shown the terrible results of such a marriage. To-day, amid these families, and even among the members of the same family root, many such are occurring; complete ignorance seems to reign as to the baneful influences that are to follow. That such alliances should be not only tolerated, but legalized by law, is most lamentable. In the Chronicles of Scotland, translated by John Bellander in A.D. 1536, is found the following: "He that was troublet with the fallin evil, or fallin daft, or harand sic infirmite as succedis be heritage fra the fader to the son was geldit that his infected blude suld spread na firther; the woman that was fallin lepper or had any infection was banist fra the company o' men, and gif she consavit bairne under sic infirmite baith she and her bairne were buryit quick." This, no doubt, was a good and reliable remedy, but rather harsh treatment to be considered at the present day. In Denmark, however, it has become more recently a matter of legislative interference, and justly so, when we consider that the mind alone is responsible for the actions of the individual. Unsound minds produce unsafe citizens; the production of such minds is productive of injury to the state and unsafety to its citizens, which it is the first principle of every government to protect. We tax the Chinaman while we legalize by marriage laws the propagation of worse. Government has erected vast institutions at vast expense for the safe-keeping of such; I will extend it beyond asylums and include jails and penitentiaries, because I am considerably of the opinion that in the majority of crimes it is the

result of faulty reasoning, misguided force, the erroneous conceptions of unhealthy nerve tissue mostly inherited. I would again refer you to Greisinger's remarks on the hereditary predisposition to crime.

Government, however, has not and possibly will not interfere for years to come, and to-day insanity is proportionately on the increase. In Greisinger's works I find the following: "It has been said that the numbers of the insane in England have increased nine-fold within the last twenty years (Buchn[illegible] and Tuke, *Psychol. Med.*). Naturally neither the population nor the civilization has increased in this proportion. We can speak of instances of much smaller increase; for example, in Wurtemburg, in twenty-one years, the number of the insane have increased from 1 in 1500 to 1 in 943." While Government professes to regulate matters of matrimony by law—even consanguinity—why not proceed further, and weed out a root of possibly as great, if not greater, immediate evil than that of consanguinity in marriage. Still, though Government is proceeding to deal with the effects rather than the cause, and though it is beyond our power as a profession to arrest such a gigantic mischief, still, I say, let us feel thankful, remembering the old adage, "Be thankful for small mercies," let us thank God for the plan whereby such prolific unfortunates cannot fecundate themselves. The Almighty mind in this fact might prompt men as to the necessity of restriction upon the conditions of wedlock. That nervous predisposition can be weeded out of our midst I think is a settled problem; Greisinger says: "Hereditary disposition is more frequent where marriage takes place among a limited number of families, or even in the same families; on the other hand, transmission is diminished by constant crossing with strange blood." Again, further on he says, "The disposition may disappear by constantly renewing the blood by marriage with healthy families; it is increased and developed to the most degenerate forms by further intermarriage, by drunkenness of fathers, etc."

APPENDICITIS.*

By C. L. Cotton, M.D., Cowansville, Que.

The attention of the profession has been directed with considerable interest during the last few years towards that old and not too well understood disease—inflammation of the appendix vermiformis. As several cases have fallen under my care during the past six months, it occurred to me that it might prove of interest to this meeting to hear a few notes of these cases, and perhaps help to elucidate some of the peculiarities of the disease. I shall apply the modern name of appendicitis to all these cases. Whether they all originated in the appendix, or whether the cæcum may have been the starting point, I am unable to say, as, fortunately, I have not yet had an opportunity of making an autopsy on any of them.

My *first* case occurred in a strong, robust farmer, J. R., aged 42, who had enjoyed good health with the exception of an occasional attack of sciatica in the right leg. He first felt pain on rising from bed on April 30th. He described it as being in the right iliac region, and as more of a dragging nature than very acute. The pain continued during that day and the two following days. On the morning of April 2nd, the third day since the onset of the pain, he took a dose of Epsom salts, which acted very freely. He had continued about his work during this time, but on the evening of this day, while milking, he was seized with a very severe pain, and with great difficulty managed to get into the house and on the bed. I was sent for at midnight, when I found him suffering intensely with pain in the right iliac region shooting down into the testicle, which was retracted. There was extreme tenderness over the site of the pain; a full dose of morphia relieved him, and he got a little sleep. In the morning he vomited several times, probably from the morphia. Temperature 100°; pulse 60. On the second day a fulness was noticeable in the right iliac region, which gradually developed into a distinct tumour. During the following week the case pursued the usual course of a localized peritonitis. The tempera-

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ture did not exceed 100°. The pulse was constantly slow, from 55 to 60. Constipation was marked; relieved with glycerine enemata. After the third day there was complete retention of urine. During the first few days opiates were required to relieve the pain, but this became more moderate as the tumour enlarged. A slight chill occurred on May 8th. On the 15th of May, the sixteenth day from the first symptoms of pain, the general condition was as follows: There was a large, tense tumour occupying the entire region from the crest of the ilium to the middle line and below to Poupart's ligament, reaching nearly to the ribs above; not very tender. No fluctuation could be discovered. I explored with a hypodermic needle and found pus. With the assistance of Dr. Gibson I opened the abscess. A few minims of cocaine were injected in the part where the incision was to be made. An incision about two inches long, parallel with Poupart's ligament, was made over the centre of the tumor down to the fascia transversalis; then with a bistoury a free incision was made into the abscess cavity, about half an inch in length. A very free discharge of extremely fætid pus followed. I inserted a large drainage tube to the bottom of the cavity and dressed with sublimate gauze. The after treatment consisted in washing the abscess cavity with a weak carbolic solution daily, continuing the drainage tube and plenty of absorbent dressing. Quinine and whiskey and strong liquid nourishment. The pain entirely disappeared after the operation. The discharge was very free during the first few days, gradually diminishing. On the sixth day I removed the drainage tube permanently, and the wound closed rapidly. He passed urine naturally the second day after the operation. Convalescence was slow. He got out about the house the middle of June, and on the 1st of July he drove seven miles to my office. Later he did good work in the hay-field, and now feels as well as ever.

The *second* case was almost a duplicate of the first. F. H., a rather delicate-looking lad of 14, but with a history of general good health, was seized with a severe pain in the stomach and vomiting on the 14th June, quite suddenly while at dinner. The pain continuing, I saw him two days later, on the 16th, when I

found him complaining of general abdominal pain, with tenderness over the epigastrium and the right iliac region. Pulse 120; temperature 102°. Ordered poultices and Dover's powder sufficiently often to relieve the pain. On the following day the tenderness was confined to the right iliac region. There was no constipation nor retention of urine. The bowels acted naturally throughout the whole course of the case. During the following days a marked fulness developed in the right iliac region, though not such a marked tumour as in the previous case. Slight tympanites was present. Periodical attacks of pain, requiring the frequent use of opiates. Pulse from 110 to 120; temperature from 101° to 102°. On the 22nd I explored the region and found pus. On the 23rd, which was the ninth day from the first symptoms, I gave chloroform and opened the abscess in the same way as in the former case. The abscess was more deeply situated. The discharge was very free and of the same extremely fætid character. All the symptoms improved immediately. The temperature became normal, pulse dropped, pain all disappeared, and the appetite improved. I found it necessary to continue the use of the drainage tube for nearly four weeks, gradually diminishing the size. The patient made a very good convalescence, and is now in good health.

The *third* case occurred in a man, J. H., 36 years of age, a miller by trade. During the past spring he received a severe strain in the muscles of the right side, which caused him much pain. On the 2nd of August, when in a heated condition, he took a cold shower bath from an improvised arrangement in his mill. He felt very much chilled immediately afterwards, and had a severe headache. During the following night he felt dull, heavy pains in his stomach and chest, which he thought was due to a fit of indigestion. The pains increased in severity and extended into his bowels. I saw him the following day, the 3rd of August. He was then suffering from general abdominal pains, most marked in the epigastrium. A moderate degree of general abdominal tenderness. Pulse normal; temperature slightly elevated. Ordered tr. opii in sufficient doses to control pain and hot fomentations. During the following week the

symptoms gradually developed into a localized inflammation in the right iliac fossa. The tenderness, though noticeable all over the abdomen, was more marked in that region, and dulness on percussion slowly developed. The temperature ranged from normal to 101°, and the pulse from 70 to 110. After the second day he required the regular use of the catheter. About the sixth day a decided fulness was noticeable in the right iliac region, and the tenderness became more localized there. On the seventh and eighth day this was more marked, but there was no distinctly outlined tumour. The fullness and dulness were very low, near the groin, and more towards the median line. On the 11th August, the ninth day from the seizure, I explored with a hypodermic needle about two inches above the pubes and one inch to the right of the median line, and got half a syringeful of the same foul-smelling pus that I was becoming familiar with. I was not then prepared to operate, but visited my patient the following day intending to do so. And here I found my mistake in not being prepared to operate as soon as I discovered the pus. On examining him I found a change. The dulness had disappeared and there was no sign to indicate the presence of an abscess. To convince myself, I introduced the needle of a hypodermic syringe in the same region and only got a drop or two of blood. As the patient was feeling better, the abscess had evidently not ruptured into the peritoneal cavity. On examining the urine, I found that it contained a large quantity of pus. Here was the explanation. The pus had made its way through the walls of the bladder. All the symptoms improved, as in the former cases, after the abscesses had been opened. During the following days the urine was full of pus and the general symptoms improved. The third day after the rupture of the abscess he passed urine without the aid of the catheter. The quantity of pus gradually diminished and the patient gained strength. I saw him last on the 12th September, and found him walking about the yard feeling very well, the urine still containing traces of pus, particularly in the morning.

The *fourth* and last case that I have to report occurred in a boy 3 years of age. About four weeks previous to the seizure

he had a severe fall on the abdomen, which was followed by vomiting all the afternoon. From that time he had frequent days of feeling poorly, though previously a very healthy child. On the 26th August he was suddenly seized with severe vomiting, which continued for twenty-four hours. Saw him on the morning of the 27th. He was stlll vomiting at frequent intervals. Pulse 110; temperature 102°. Nothing further very definite. Under small doses of calomel the vomiting ceased. There was obstinate constipation, which was relieved after the use of several enemata. Examined the abdomen carefully and discovered decided tenderness over the cæcum. This condition continued during the following ten days without much change. Pulse was about 120; temperature from 100° to 101°. The tenderness over the right side increased; tympanites developed. The right iliac region was hard and tense, but not completely dull, more the feeling of tension of the abdominal muscles. The region was fuller than the opposite side. Had to keep him constantly under the influence of opiates. His bowels acted naturally and he took milk well. On September 4th, the ninth day from the seizure, thinking that there must be suppuration going on, I explored the region that appeared most dull with a hypodermic needle, but failed to discover pus. On the following day a sharp diarrhœa set in of a most offensive character. On examining the discharges, they were composed of mixed fæcal matter and pus, some of them being nothing but pus with shreds of broken-down tissue. This abscess was apparently deeply situated, and did not make its way to the surface, probably opening into the cæcum on its posterior side. The tenderness soon disappeared and the pain was gone in twenty-four hours. The diarrhœa continued for four or five days, the pus diminishing in amount until the discharges became entirely fæcal in character.

Sept. 15th.—The little patient has been sitting up for the last two days, and shows signs of rapid improvement. The action of the bowels is quite natural, no abdominal tenderness remaining.

As these cases carry with them their own lessons, I will make no further observations about them.

NOTES OF THREE CASES OF PLACENTA PRÆVIA.

By Albert G. Allen, M.D.

(Read before the Bathurst and Rideau Medical Association.)

That complication of labour known as placenta prævia, and the hemorrhages which are the result of the placenta occupying such abnormal position, have always formed a most fruitful theme for discussion. The reason why the placenta assumes such a site, the causes of escape of the blood, nature's efforts to arrest such, and the proper treatment, have all been the subjects of endless controversy. It is a subject, too, whose importance amply justifies the attention paid to it, for from that as from no other obstetric complication is there apt to arise such sudden and dangerous effects, and requiring such prompt scientific treatment. The comparative frequency of these cases—one in every thousand it is stated—is sufficient to provide most obstetricians with all the practical experience in its dangers that they desire.

Not so much, then, with the desire to throw more light upon this subject do I bring before your notice notes of these three cases that have happened before me within a brief period of time, as with the hope that such may evoke a discussion that will supply us younger practitioners with much information as to how these cases can be best handled.

Fortunately for me, my first case had recovered from all immediate danger before my arrival. Having been hastily summoned at 2 A.M., Feb. 24th, 1890, I found the patient lying in an apparently exhausted state. The bed, much to my surprise, was fairly soaked with blood, which overflowed to a large extent upon the floor. An examination revealed the placenta lying in the vagina, and behind it the child's head presenting normally. The placenta was at once extracted, forceps applied, and child delivered as rapidly as possible. The hemorrhage having ceased, and the mother being easy, attention was directed for the next few minutes to the child, which had been asphyxiated by the lengthened withdrawal of its sustenance, and when success had crowned these efforts to revive it, an opportunity was given to enquire into the previous history of the case. The patient was

a multipara, this being her sixth confinement. About a month previous she had had a slight hemorrhage, attributed then to a a fall, and which was easily recovered from. No other hemorrhage took place until labor set in on the evening of Feb. 23rd, when on and off during the progress of the labour copious quantities of blood escaped. The physician engaged for the case was summoned at 10 P.M., but doubtless failing to detect any abnormal state of affairs, and deeming the second stage of labour yet some hours off, assured the patient that the hemorrhage was not alarming, and took his departure after giving orders to be summoned when the pains got stronger. A call to the country, however, supervened, and thus the case fell into my hands. As the dilatation of the os had proceeded, the flow of blood became more alarming, but did not bring about a fatal result before the separation of the placenta had been complete. The fact that it had been pushed ahead of the child instead of being wedged to one side led me to think it a case of placenta prævia centralis. Running my finger around the interior of the womb just above the os a roughness all round was revealed, which further convinced me. The mother made a rather slow convalescence, as might have been expected. The child lived for five months and then succumbed to marasmus.

Case No. 2.—Multipara, second pregnancy; patient aged 25. Lost first child at seven months, and afterwards suffered from anteflexion, for which she had been treated in Detroit. Reposition of the womb was followed by pregnancy, and patient came home to have her confinement. Her first hemorrhage, on Oct. 4th, was attributed to not having recovered from the effects of the long journey eastward. Had another severe hemorrhage three weeks later, when I was called in. Suspicions of placenta prævia were sustained by the examination. Owing to the relaxation of the os, produced by the loss of blood, the fingers entered easily, and detected the upper aperture of the cervix entirely covered with a thick boggy mass. Dr. Dumble saw the patient with me a few hours afterward, but by that time the os had contracted again, and his opinion that it was a case of placenta prævia marginalis was mainly formed from the thickened and spongy feeling

of the posterior portion of the womb. The immediate induction of labour was advised, owing to the constant danger the patient otherwise would be in, but both she and her husband demurred as labour was not expected for another month, and both were extremely anxious that the family might be further augmented. I was not summoned again until three weeks later, when with some slight pains a most alarming hemorrhage had taken place. Blood was still oozing from a partially dilated os. Plugging was immediately resorted to and delivery determined upon. The tampons were changed every four or five hours, each time the vagina being carefully cleansed of all clots and then tightly repacked with borated cotton. Uterine action was further excited by firm abdominal pressure, with occasional friction over the uterus. After twenty-eight hours of patience the os was found sufficiently dilated to permit the hand to enter. The placenta was found completely encircling the os, so the hand was gently insinuated along one side, between it and the uterus, breaking down the attachments as it proceeded. The membranes were next penetrated, hand pressed on up into the womb, a foot grasped and brought down with the still gushing waters. Version was easily accomplished, but the subsequent deliverance of the child was slow and tedious, the head being very large. However, this was at last accomplished, the placenta having become entirely detached in the meantime and following the head right up. This child was also asphyxiated, and though prolonged efforts were made to resuscitate it, they were without avail, and the hopes of the parents were again blasted.

Case No. 3.—Multipara; strong, healthy woman of about 35. Eighth pregnancy; all previous ones normal. I was called in on May 22nd, 1891, and found labour in its initial stage. No history, as far as could be ascertained, of any previous hemorrhages. Examination reavealed a slightly dilated os, apparently filled with the soft spongy mass of placenta. Diagnosis, placenta prævia centralis; but subsequent events disclosed the fact that a space of about one-third of the circumference of the os and the segment of womb above it were free from placenta. The pains at this time were very feeble and the loss of blood slight,

but as a precaution the vagina was packed with cotton, and orders left to be summoned when the pains got stronger. On arrival, six hours later, found the tampon expelled, the os fully dilated, and copious hemorrhage accompanying the pains. I attempted to turn by the bipolar method, but, whether owing to an excusable impatience or not, I did not succeed, and so delivered upon the podalic method once more. Nature, however, anticipated me, for just as I was about to rupture the membranes and proceed in the routine way they burst themselves, and with the force of the same pain the head was pressed well down past the placenta into the cavity of the pelvis. The full expulsion of the child was also accomplished rapidly, two more pains sufficing. Though the placenta had not been completely detached the child did not give that familiar evidence of its being alive, and required a few minutes of artificial respiration to revive it. The placenta, with the membranes intact, came away very shortly afterwards. The loss of blood in this case, on the whole, was not very great, and convalescence was achieved quite as soon as if the labour had been normal.

Such are my notes. I have only to add that all three were conducted without the administration of ergot. The question in my mind is whether they could have been handled more successfully by using that drug. Playfair places the mortality at about $4\frac{1}{3}$ per cent. in the cases of the mother, and at about 60 per cent. with the children.

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.

Inguinal Colotomy.—Of late years this operation has almost superseded that in the lumbar region, although lumbar colotomy was considered to be a most satisfactory and successful operation, and the objections which have been recently made to it are chiefly theoretical. It cannot be denied, however, that inguinal colotomy is a very simple operation, and gives good results; the situation of the artificial anus, also, is more convenient than when in the lumbar region. In both operations the important point is to make the opening into the bowel in such a way that fæces cannot pass beyond to the rectum, and this is more easily done in the inguinal operation, because there the bowel can, owing to extent of meso-colon, be easily drawn out and fixed *in situ*. Mr. F. T. Paul (*British Medical Journal*, July 18th, 1891) says the inguinal operation is undoubtedly easier to perform than the lumbar, but it has a source of danger from which the other is free, and that is the danger of allowing fæcal discharge to bathe a wound directly communicating with the peritoneal cavity, hence it is the custom to delay opening the bowel until adhesion has taken place between it and the wound. Mr. Paul accomplishes this by a new method. It is as follows: The sigmoid flexure is withdrawn from the inguinal wound, the bowel divided in the middle, and the distal end invaginated, as in Senn's operation, and returned into the abdominal cavity. Into the upper or proximal end a glass-tube, an inch in diameter, is tied, its fore end being attached to a rubber tube to convey the fæcal discharge away from the wound. This piece of bowel is sewn to the edges of the wound by green catgut, sutures passing through its musculo-serous coats, and the rest of the wound closed with the same. Thus about two inches of bowel projects beyond the wound, which is then dressed with iodoform and salicylic wool. Three cases are reported in which this procedure was successfully carried out.

The objection to this operation is the fact that it is very difficult, nay often impossible, to tell which is the proximal and which the distal end of the bowel.

Dr. Landow of Göttingen (*Centralblatt f. Chir.*, No. 30, 1891) describes this abnormal condition of the sigmoid flexure, and considers that it would contraindicate the practice advocated by Madelung of stitching up the lower opening after complete division of the gut, and allowing the lower detached end to fall into the pelvis. In two cases of inguinal colotomy recently observed in the Göttingen clinic, where the usual practice is to divide the gut and to stitch the two open ends to the abdominal wound, it was noticed that the discharge of fæces always took place from the lower and not from the upper opening, although at the time of the operation the lower portion of gut was traced downwards towards the bladder and the upper portion in the reverse direction. In one of these cases, which terminated fatally, it was found at the necropsy that the sigmoid flexure, which was very long and freely movable, passed upwards and outwards as far as the splenic flexure, and then turned downwards and towards the middle line, reaching the rectum after a long and tortuous course. The division of the gut having been made in the ascending portion, what was supposed to be the distal opening was that nearest the cæcum, whilst the supposed upper opening corresponded with the divided end of the elongated and contorted sigmoid flexure.—(Quoted in *Supplement of British Medical Journal*, Aug. 15th, 1891.)

Intestinal Anastomosis by means of a Vegetable Plate.—Dr. Robt. H. M. Dawbarn of New York (*N. Y. Med. Record*, June 27th, 1891) announces that he has discovered a new plate easily obtained and thoroughly to be depended upon for intestinal anastomosis. It is made from the raw potato. He has experimented on a large number of dogs with complete success. A pair of potato plates can be made by his method in two minutes. The material is always on hand; it has no tendency to swell; it is rigid, and remains so longer than the majority of materials advised for this purpose. For employment on the human being the plates should be about one-third of an inch

thick, and should be cut long so that the opening is twice the normal diameter of the gut to be operated upon. The threads used should be very coarse, and the needle, before passing through the plate, should pierce a scrap of rubber drainage tube or small piece of cloth, which prevents the knot tied or end of the threads from pulling through. Instead of first making an incision through the gut, the plate should be inserted into the lumen of the bowel through its divided end, and the needles are made to pierce the gut wall at the proper positions. When two plates are placed in the two extremities of the bowel, at least two inches from the cut end, the corresponding threads of the two plates are tied together, thus bringing into apposition the two peritoneal surfaces covering the plates, which have been previously well scraped with a knife so that adhesion may promptly take place. When the threads are tied, at least one line of sutures should be run around the plates, great care being taken not to pass the needle into the lumen of the bowel. The author uses the basting stitch, because it is easy to apply. As yet, when the plates are in apposition there is no opening in the bowel; this is now made, first by introducing a strip of wood into one of the open canals of the gut, and into the other open end of the gut a knife is inserted and the opening in the apposed intestines made by cutting on the strip of wood previously inserted. Water should now be introduced, and should run freely from one cut end of the gut to the other through the recently made opening at the site of the apposed potato plates. The strip of wood is withdrawn, the free ends of the bowel scraped, inverted and closed by a double line of running sutures.

Cæcal Hernia.—This rare form of hernia, when it occurs, is very rarely strangulated, but Mr. Stephen Paget (*Lancet*, April 25th, 1891), reports three cases which he met with in three months. All occurred in male infants under a year old. In all three cases there was a complete hernial sac. The operation succeeded in the two first, but in the third the bowel was found to be gangrenous, so an artificial anus was made, but the child (aged three months) died six weeks after of marasmus.

Mr. Paget draws attention to two symptoms in this form of

hernia in children which are not seen in adults—viz., retention of urine and acute inflammation of the skin of the scrotum. There was no communication in these cases between the sac and the tunica vaginalis. The fold of peritoneum described by Treves and Lockwood (plica vascularis), containing muscular fibres which passes down from the cæcum along the back of the sac and helps to cause the hernia by drawing or guiding the cæcum into the sac was well seen in these cases.

Retro-peritoneal Hernia (Mesenteric Hernia of Cooper.)—This rare form of hernia is caused by the lodgment of small intestine in the fossa duodeno-jejunalis.* The pocket becomes enlarged and more and more intestine enters into it. The bowel finds its way behind the peritoneum in a complete sac formed by the duodeno-jejunalis pocket. In one case Sir Astley Cooper found the whole of the small intestines, with the exception of the duodenum, hidden from view, occupying a large sac in the middle of the abdomen, and surrounded by large intestine.

Dr. Alfred G. Barrs (*Lancet*, August 8th, 1891) describes such a hernia which had become strangulated. The patient was a male, aged 18, in the Leeds Infirmary, suffering from comminuted fracture of the femur, and was going on well, when, ten days after admission, he complained of intense and continuous pain in the epigastrium; soon the pulse became shabby, skin cold and clammy, and evidence of collapse became marked. Diarrhœa and vomiting set in at the beginning of the pain, and continued to the end; he gradually became worse, and died that evening. The post-mortem revealed the cause of death. On opening the abdomen, what was apparently a second sac of peritoneum containing all the small intestines was come upon. It was freely movable. When opened the small intestines began to escape. The sac was quite clear and free from fat or blood-vessels. The left layer of the mesentery had been invaginated along the posterior wall of the abdomen and behind the superior mesenteric vessels, thus forming a complete sac of itself.

* According to Treves, this fossa is seen if the transverse colon be thrown upwards and the small intestines be drawn well to the right, for thus the end of the duodenum and commencement of the jejunum will be clearly exposed. When the fossa exists a fold of serous membrane, devoid of fat and blood-vessels, will be seen to pass from the parietal peritoneum, just to the left of the terminal part of the duodenum, and to be attached in a vertical line to the anterior surface of this portion of the bowel. This fold forms the pouch.

Chronic Prostatis.—Dr. Oberlaender of Dresden (*Journal of Cutaneous and Genito-Urinary Diseases*, July, 1891) says that of chronic inflammations of the prostate, the most frequent is the so-called "old man's hypertrophy." But there are other forms of prostatitis which occur earlier in life. The patient may have suffered from gonorrhœa, but in about half the number of cases excesses of various kinds and masturbation seem to be the causes, especially in association with a predisposition to catarrh of the mucous membranes. The local trouble caused by prostatitis may be slight, consisting in burning pain on micturition, especially after errors of diet, occasionally increased urgency in the desire to urinate, but most frequently these patients suffer from a very disagreeable nervous weakness of sexual power. Erections are diminished and ejaculation is often premature, and after coitus there is great bodily and mental exhaustion. Very often the latter symptoms are the only ones complained of. Should the prostate be examined per anum, more or less irregularity and enlargement will be found. The swelling is seldom hard, and as a rule only one lobe is affected. Here and there are separate painful spots, and the patients complain of painful pressure in the rectum. By the urethroscope decided disease of the posterior urethra can always be made out; the mucous membrane is of a red colour, bleeds easily, is soft, and covered with granulation-like and papillomatous growths. In the more chronic cases the membrane is smooth and shiny, and yellowish-white in colour. The treatment should consist in removal to the seaside or the mountains, or residence in a well-managed institution, with careful attention to diet and regulation of the bowels. Locally, iodoform suppositories containing three-quarters of a grain to one and a half grains each should be used after clearing out the contents of the rectum by means of an enema. In some persons the iodoform may give rise to symptoms of intoxication. In addition to this, a one or two per cent. solution of nitrate of silver should be applied to the posterior urethra once or twice a week. The introduction of metal sounds and Winternitz's psychrophore are also frequently beneficial. The affection is very liable to relapse. When it follows gonorrhœa

it is most easily cured. The worst cases are those in persons predisposed to mucous catarrh.

Dr. E. L. Keyes, in a paper entitled *Some Practical Suggestions for Deep Urethral Medication in the Treatment of Posterior Urethral Catarrh* (*N. Y. Med. Record*, July 2, '91), says gleet is not a disease; it is really an insignificant matter, and must be classed with the little miseries of life, like shirt-buttons, corns, a mother-in-law, a wrinkled stocking, or a cross in hopeless love. He meets with many cases that have already been cut anteriorly with very little or no result. The fact of the existence of a posterior urethritis has not been recognized. Where there is a posterior urethritis, the quantity of pus lying in the urethra behind the bulbo-membranous junction is disproportionately great when compared with the amount of gleet discharge that appears at the meatus. When pus forms in front of the triangular ligament it readily and promptly reaches the meatus, but when it forms behind the bulbo-membranous junction it more readily takes the opposite courses, flowing backward into the prostatic sinus and the bladder. When, therefore, a case of gleet is examined, if the urethra be milked by firm pressure with the finger from the perineum forward until all the pus is squeezed out, and then the patient be instructed to urinate in two glasses, that passed into the first glass will be found to contain a quantity of pus disproportionately great when compared with what has flowed out or been milked out of the urethra before micturition.

Dr. Keyes admits that these cases of posterior urethritis may get well without local treatment, by balsams, alkalis, iron, change of air, etc., but he claims that most cases are suitable for local treatment, and get well rapidly under its use. Some cases, however, local treatment does not agree with, cases which are tubercular, and even some simple inflammatory cases. In the local treatment he uses a syringe founded on Ulzman's model, with only one minute opening at its tip. The tip need be inserted just within the hole in the triangular ligament immediately beyond the bulbo-membranous junction; twenty minims or more may be gently thrown in, and the entire injection will flow back-

ward along the membranous urethra, through the prostate into the bladder. Dr. Keyes now uses milder injections and in larger quantities. He has used many substances as injections, but he has now come to rely on four substances, viz., sulphate of thallin, sulphate of copper, nitrate of silver, and glycerole of tannin. The *sulphate of thallin* is used with water in the strength of three per cent., rising gradually to six, nine and twelve per cent.; it is very bland and produces no discomfort. *Sulphate of copper* is used in a ten per cent. solution with glycerine; this is diluted with water for use, commencing with one grain to the ounce, and increasing rapidly if the effect is good to forty-eight grains to the ounce. *Nitrate silver* is employed as a ten per cent. solution, but he rarely uses it except in cases of acute gonorrhœal cystitis, when copper and tannin fail; in ordinary cases he commences with the strength of one grain to the ounce, and very seldom goes beyond ten. This is the harshest of all applications, and causes most pain. *Glycerole of tannin* is used by adding water seventy-five, fifty or twenty-five per cent., and it is employed where a more astringent influence is aimed at than that produced by the copper solution.

Nerve Suture.—Dittel (*Wiener klin. Woch.*, Jahr. IV., No. 18) reports a successful case of plastic operation upon the ulnar nerve, although there was a considerable loss of its continuity. The patient received a severe wound of the arm, which, together with extensive injury to the skin and muscles, destroyed about two and a half inches of the ulnar nerve. The peripheral end of the nerve could not be found. The wound was closed with antiseptic precautions. Next day it was found that sensibility of parts supplied by the ulnar nerve was unimpaired, and that there was but slight loss of muscular power. Contraction could be induced, however, by no form of current four weeks after, so operation was at once undertaken. By careful dissection the proximal and peripheral ends of the nerves were exposed. About three inches from the extremity of the peripheral nerve end a thin-bladed scalpel was thrust directly through the nerve trunk, and the nerve trunk was thus split into two equal halves, the incision being stopped short before reaching the extremity of the

nerve. The proximal end was split in a similar manner. By transverse cuts the nerve was freed and carried upwards from the distal end and downwards from the proximal end, until the extremities of the split ends were brought in contact. Sutures were then applied. To cover the defect of the soft parts made by the original injury, a flap of skin was transplanted from the upper arm. The wound suppurated. Ten weeks after the operation the muscles reacted to electricity, and at the time of the report contractions could be excited, not only by the application of the current to the muscles, but also by excitation of the nerve trunk.

In the same journal, Brennor reports a successful case of nerve suture ten years after injury of the nerve. The patient had received a stab-wound ten years before, on the flexor surface of the wrist-joint. The scar lay directly over the course of the median nerve, and beneath it was a knot the size of a cherry, which often caused great pain. There was flexion of the index and middle surfaces, and their palmar surfaces with the ulnar surface of the thumb were completely anæsthetic. Operation was decided upon. The tumour was dissected out, and it was found attached to the extremity of the proximal portion of the median nerve. It was divided from its connection and the nerve found to be healthy; the distal end was then looked for and found, and the nerves were brought together in the same way as that described in Dittel's case. The wound was closed and healed by primary union. Two weeks after operation there was return of sensibility; a year later sensibility was completely normal, and there was no more contraction of the fingers. The trophic disturbance, as manifested by the deformed and thickened nails, however, did not disappear.—(Quoted in *American Journal Med. Sciences*, Sept. 1891.)

This method of replacing lost nerve tissue is very ingenious, and seems to act remarkably well where the amount of nerve destroyed is great. In the lesser cases, by dissecting the nerve ends freely from the tissue in which they are imbedded, and flexing the arm, a considerable space may be made up. The writer has recently sutured the musculo-spinal in one case,

divided seven months before by a pistol ball; and in another case, all the nerves of the brachial plexus in a boy, divided some six months before in the axilla. The accident was caused by falling on glass. The results in these cases will in due time be reported.

Treatment of Surgical Tuberculosis.—At the recent meeting of the British Medical Association, held in Bournemouth, July 1891, much attention was directed to the treatment of surgical tuberculosis. Dr. Ward Cousins, in the address before the section of surgery, indicated some of the improvements which have taken place in the treatment of tuberculous joints during the past few years, and traced this progress to the influence of recent advances in pathology. He pointed out that in the early stages of artfcular disease the diagnosis may be open to question, and threatening symptoms may be traced to traumatic causes. He is an advocate of early operative interference in cases of articular tuberculosis. Dr. Ward Cousins referred to recorded instances of partial arthrectemy near the neck of the femur and the upper extremity of the tibia, in which carious cavities had been exposed and small sequestra successfully removed. Complete arthrectomy he was not much in favor of, the results of inquiries showing that in most cases the operation had resulted in either firm ankylosis or in weak limbs and joints, with ten-tendency to serious flexion and displacement.

Mr. Watson Cheyne read a paper on *Tuberculin in Relation to Surgical Tuberculous Diseases;* it is the report of a careful and prolonged investigation. He first deals with the beneficial effects and hurtful action of tuberculin. He says we have in this fluid a substance which, though it professes some remedial properties, exposes the patient to risks of grave importance. Its hurtful action "in many cases outweighs its good effects to such an extent as to lead to its abandonment or preclude its employment." The constitutional reactions caused by the early injections are sometimes so severe as to leave the patient in a worse condition than before; the local reactions often lead to serious inflammatory complications, and in a tuberculous lung may set up pneumonia, which is not only dangerous in itself, but

may also aid in the spread of the original disease. Again, when sepsis is present, tuberculin seems to favor the spread of this morbid condition and to excite grave septic troubles. Another objection advanced by Mr. Cheyne is that the fluid not only fails to produce immunity, but actually, in many cases, apparently predisposes the body to the tuberculous infection. Notwithstanding all these objections, Mr. Cheyne does not despair of the future of tuberculin. He hoped that some method would be found for isolating the remedial element of the fluid and of eliminating such elements as are hurtful. Dr. William Hunter has been engaged in this work, and some results have been obtained. Dr. Hunter considers tuberculin to consist of three substances of the nature of albuminoses, alkaloidal substances, and extractives. With the first of these the remedial and inflammatory actions of the fluid are connected, whilst the fever-producing properties are chiefly associated with the substances of a non-albuminous nature. These investigations are not yet completed, but Dr. Hunter has succeeded in eliminating the fever-producing substance, and has obtained a modification "capable of inducing very distinct local improvement unattended by fever and still more markedly accompanied by scarcely any noticeable inflammatory reaction." The prospect of this treatment by modified lymph, Mr. Cheyne thinks, will always, in surgical cases, take a secondary place to the more rapid and thorough operative measure, but he holds the outlook as to results will be more hopeful in medicine.—(*Brit. Med. Jour.*, Aug. 8.)

Therapeutics of Erysipelas.—The antiseptic treatment of erysipelas has of late years been a favourite method with the Germans. Gottstein holds that although antiseptics dissolved in fat lose their activity, yet corrosive sublimate in combination with lanolin preserves its disinfecting properties. He relates a case of erysipelas treated with sublimated lanolin. The patient, a woman aged 56, had high fever and severe general symptoms, such as delirium. The next day there was erysipelas of the right side of the face and a temperature of 103°. The sublimated lanolin was energetically applied, and the next day the temperature was 100.5° and the erysipelas subsiding. On the

third day the temperature rose again to 102.3°, owing to involvement of the scalp. On the fourth day the temperature fell to 97.4°, and convalescence began. Patient was out of bed in eight days from beginning of attack. — (*Therapeutische Monatsch.*, April 1891.)

Wiring of the Vertebræ as a means of Immobilization in Potts' Disease.—Dr. B. E. Hadra, of Galveston, Texas, has reported (*Times and Register*, May 1891) a case of fracture of the vertebræ treated by wiring the spinous processes together, and he suggests this procedure as a means of immobilization for the treatment of tubercular spondylitis. *Operation.*—A long skin incision, the centre of which should be over the seat of fracture, is made; next, the muscles on either side of the spinous processes are lifted up and drawn aside with blunt instruments, but not more than to allow one to feel the contours of the bones. Then a stout curved needle, armed with wire, is carried through the interspace between the spinous processes of the vertebræ, brought out and entered at the space next below, and brought out on the other side; re-entered in the space below, carried round the spinous processes of the vertebræ, and again carried through the middle interspace, meeting the wire where it entered. The ends are now twisted into a knot. In fact, it is really a figure-of-8 around the spaces of the vertebræ. He would employ this method in spondylitis for these reasons: the disease is almost invariably located in the vertebral bodies, and usually on or near their anterior surfaces; the processes, laminæ, arches and articular facets are invariably healthy; nearly all the mechanical means employed to immobilize the spine aim by indirect leverage to transfer the superimposed weight from the vertebral bodies to the articular facets where it is well borne. In Dr. Hadra's procedure the weight is transferred to the same articular facets, but the leverage is direct, and the immobilization ought therefore to be more perfect. It is questionable, notwithstanding its theoretical advantages, if this method will ever become popular with parents whilst non-operative procedures are so successful.—(Quoted in *N. Y. Medical Record*, Aug. 8, '91.)

Surgery of the Cauda Equina.—Dr. Leopold Laquer (*Neurologisches Centralblatt*) describes a case of compression of the

cauda equina that came under his notice in September 1888. The patient complained of much pain in the sacrum, and was unable either to sit or to lie down with any comfort. In December 1889 there was an exaggeration of the previous symptoms, with marked alteration in motion and sensation, as well as some atrophy of the lower extremities. The electrical reactions of both muscles and nerves were normal, and the reflexes were normal. Despite all treatment the symptoms increased, and in September 1890 the patient could hardly move about and held his back in an attitude of extreme kyphosis. On the right side the patellar reflex was abolished, and the left side was weak. There was no sensation in scrotum, perineum or lower extremities, There was some atrophy of the quadriceps, but no ataxia or trophic changes. The diagnosis was compression of the cauda equina, with degenerative neuritis. Dr. Louis Rehen cut down on the sacrum, and laying open the whole canal disclosed a small extra-dural tumor in the middle of its lumen. On examination this tumour proved to be a lymphangeioma caver nosum. Recovery was prompt; by the end of the second week after operation the patient was free from pain and sleep was natural. Four months after the patient was able to go about, holding his body in the natural position, with functions nearly restored.—(Quoted in *N. Y. Med. Jour.*, July 1891.)

Senn's Method of Employing Decalcified Bone-filling.—At the meeting of the Ontario Medical Association, held last June, Dr. Senn thus describes his method of bone-filling:

" In operating in any case of necrosis or bone inflammation the operation must be very thorough. We must expose the cavity, and use a chisel—a trephine is uselsess, and may be looked upon as obsolete in bone surgery. When the whole cavity is exposed, sequestra are removed and the inner lining of the cavity scraped away with a sharp spoon or round chisel until all affected tissue is removed. Now prepare the cavity for packing by chemically disinfecting it with chloride of zinc solution or, better, peroxide of hydrogen; the latter permeates more deeply. Then irrigate with perchloride of mercury; dust with iodoform, and now pack in the chips. (These chips are kept stored in ethereal solution of iodoform, five per cent., ready for use.) After packing, the

periosteum is stitched over it, because we must see that the chips are surrounded on all sides with healthy living tissue. In cases in which we obtain an antiseptic condition of the parts, we find that granulation tissue is soon substituted for the chips. Many erroneously believe that the chips are used for the permanent replacement of the lost bone, but this is not so; the bone is replaced by granulation tissue first of all, an early definitive healing takes place, and eventually regeneration of the entire bone.—(*Canadian Practitioner*, June 16, 1891.)

The Curative Effects of Operations per se.—Dr. J. W. White of Philadelphia, in a paper on the above subject (*Annals of Surgery*, August and Septembe 1891), comes to the following conclusions:—

(1) There are large numbers of cases of different grades of severity and varying character which seem to be benefited by operation alone, some of them by almost any operation.

(2) These cases include chiefly epilepsy, certain abdominal tumours and peritoneal effusions, and tubercle, though the improvement in the latter is to be explained on general principle.

(3) Of the possible factors which, by reason of their constancy, must be considered, anæsthesia seems most likely to have been effective. The other three—viz., psychical influence, relief of tension, reflex action—may enter in varying degrees into the therapeutics of these cases, and, taken together, serve to render the occurrence of occasional cures less mysterious.

(4) The theory of accident or coincidence scarcely explains the facts satisfactorily.

The Correction of Angular Deformities of the Nose by a Subcutaneous Operation.—Dr. John O. Roe, of Rochester, N.Y., has an interesting paper on the above subject with excellent illustrations. (*N. Y. Med. Record*, July 18, 1891.) His method is as follows: After anæsthetizing the part with cocaine, both by applying it to the interior of the nostril and by injecting some under the skin with a hypodermic syringe, a lineal incision is made completely through the upper wall of the left nostril, just in front of the nasal bone, between it and the upper lateral cartilage of the nostril, to the under side of the skin. This incision

should be widened laterally from the insertion of the upper border of the triangular cartilage, half way down the side of the nose, until a sufficiently large opening is made to permit free introduction of instruments. The skin is then raised from the bridge of the nose over the region where the operation is to be performed. Now a pair of angular bone forceps is introduced from below, and the projecting piece of bone cut off in such a way as to make the top of the nose perfectly straight and smooth. The operation should be done with the strictest antiseptic precautions. After completion of the operation, iodoform is blown through the opening over every portion of wounded surface. The skin is then allowed to drop back upon the bridge of the nose, and by strapping it down with gentle pressure the wound should heal without the slightest formation of pus and very little soreness.

There is no reason now why everyone should not have beautiful noses. The crooked ones are straightened and Roman beaks made into delicate Grecians. Certainly, according to the published photo-engravings of before and after operation, the results in Dr. Roe's cases are simply perfect.

Surgery of the Stomach.—Dr. Torras has made a study of the statistics of resection of the pylorus during the years between 1880 and 1890. (*Revista de Medicina ef Cirurgia Practicas*, No. 350, 1891.) From this it appears that in 1880 there was one extirpation, followed by death. In 1881, out of 20 in whom resection was performed there were 15 deaths and 5 recoveries;

in 1882,	16	cases	with	13	deaths
1883,	13	"	"	7	"
1884,	8	"	"	5	"
1885,	5	"	"	3	"
1886,	3	"	"	1	"
1887,	2	"	"	0	"
1888,	1	"	"	0	"
1889,	1	"	"	0	"
1890,	2	"	"	0	"

In all, 51 cases with 29 deaths—a very good showing considering the great severity and danger of the operation. The statis-

tics show that the operation is performed so frequently now as when first introduced, and when performed the cases are better selected, and hence more favourable results. Dr. Torras says though most of those stated to be cured by the operation have survived above five years, yet they cannot yet be regarded as quite out of danger. Dr. Torras would confine the operation to cases of simple stenosis of the pylorus, contraction of the orifice from cicatrices or fibrous tumours, or for the extraction of foreign bodies from the stomach.—(*Medical Recorder*, March 1891.)

Gastrostomy for Impassable Stricture of the Cardiac End of the Œsophagus; Recovery and subsequent dilatation of the Stricture.—Dr. Weir of New York reports the above case. (*N. Y. Med. Record*, July 25th, 1891.) The patient was 59 years of age, and had been in fairly good health until the beginning of 1890, when in one day he had two hemorrhages, vomited by the mouth. Nothing was passed per rectum. After this his gastric and intestinal functions were rather irregular. In June 1890 he had another severe hemorrhage, and in August the first symptoms of difficulty of deglutition presented themselves, and soon well marked evidences of stricture appeared near the stomach end of the gullet. The stricture gradually grew worse until bougies could no longer be passed. He declined operation at first, but finally consented. The operation was performed on Dec. 16th, 1890. An incision (Hacker's) 3½ inches long, beginning one inch below the ensiform cartilage and the same distance to the left of the median line. As soon as the rectus muscle was exposed its fibres were separated by a director and held aside, the fascia and peritoneum divided nearly the whole length of the wound, and a small fold of the stomach drawn out through the wound and transfixed with a headless gold pin; the ends of the pin rested across the wound in the skin, and the pin pierced the whole thickness of the stomach. The parietal peritoneum was sutured to the edges of the wound and the opening of the stomach deferred until adhesions should take place. Antiseptic dressings were applied, the line of sutures being covered with iodoform collodion. Owing to the patient having become much weaker the stomach was opened on the

third day by cutting down on the pin with a tenotome; two small vessels spurted, requiring clamping. The mucous membrane was seized and pulled out, and fastened by silk sutures to the skin. A No. 16 elastic catheter just fitted the opening when completed. He was now fed through the catheter, and the feeding repeated every six hours. The tube was kept in continuously and gave rise after ten days to considerable irritation. Scheimpflug's balloon catheters were used, but found not durable enough, so rubber tubing was substituted and changed every ten days to two weeks, the muscular action of the rectus abdominis being found amply sufficient to preserve control of the stomach contents. Four weeks after operation, the patient being in good condition, the stricture was treated. On the first trial a fine whalebone bougie was passed into the stomach, larger ones were passed later, and soon the largest size fine conical bougies were easily passed. The patient soon fed by the mouth, and the tube was removed from the stomach; and when the last report was received, June 15th, 1891, the fistula had nearly closed and patient's condition was steadily improving.

Resection of the Stomach for Ulceration.—Dr. Mayde presented before the Royal Medical Society of Vienna in April last a patient on whom he had excised the stomach for a tumour which was diagnosed as carcinoma, but on examination proved to be due to a cicatrix following ulceration. There were the scars of three large ulcers, and there was an invagination of the pyloric end of the stomach into the duodenum. The reader of the paper stated that up to that time there had been 120 resections of the stomach, with 63 per cent of deaths. Twenty-four operations had been performed for ulcer, with the result of over 42 per cent. of deaths.—(*La Semaine Médicale*, Avril 22, '91.)

New Method of Establishing a Gastric Fistula in Gastrostomy.—Dr. Oscar Witzel of Bonn describes a new method for forming a gastric fistula (*Centralblatt für Chir.*, Aug. 8, 1891) which will prevent the escape of gastric juice, which in many instances causes so much trouble after this operation. The object of this procedure is to establish a canal formed by stitching together the free borders of two parallel folds of the exposed wall

of the stomach. This canal extends obliquely from the right downwards to the left, where it communicates with a small opening made into the interior of the stomach, and an arrangement is thus established which resembles the lower extremity of the ureter as it passes into the bladder. It is necessary to draw a large extent of the anterior wall of the stomach through the external wound. This is easily done by prolonged traction when the stomach is empty. Two parallel folds, as mentioned above, are then taken up, the free margins of which are brought together by three or four Lembert's sutures and by numerous ordinary sutures over a flexible tube the thickness of a lead pencil. The lower end of this tube is inserted into the stomach by a small opening, whilst the upper projects from the external wound. The canal thus formed is left exposed at the bottom of the wound, when the stomach is fixed by sutures to the margin of the external incision. This modification does not change any in the steps of the operation. In exposing the stomach Witzel exposes the sheath of the rectus by an incision made parallel to, and at a distance of a finger's-breadth from, the margin of the ribs, then he separates the fibres of the muscle in a vertical direction, and incises the transversalis obliquely from above downwards and from right to left. The division of the rectus thus crosses the wounds made through the skin and transversalis muscle. Witzel has operated in the manner above described on two patients, and is well satisfied with the results. The valvular action was excellent.—(*Supplement to British Medical Journal*, Sept. 5th, 1891.)

Society Proceedings.

CANADIAN MEDICAL ASSOCIATION.

Twenty-fourth Annual Meeting, held in Montreal, Sept. 16, 17 & 18.

The past President, Dr. Jas. Ross (Toronto), took the chair at 10 A.M., and called the meeting to order.

Dr. Ross introduced Dr. Hingston, chairman of the Committee of Arrangements, who welcomed the visitors and drew attention to the new feature of visiting the city hospitals.

The minutes of the last meeting having been read and confirmed, the President (Dr. Roddick) took the chair and formally opened the meeting.

Past presidents Drs. Hingston and Geo. Ross, and the delegates from the New Brunswick Medical Society (Dr. J. Christie and Dr. Daniels of St. John), were invited to seats upon the platform.

Letters of regret were read by the Secretary from Drs. Jos. Workman, Osler, Spencer (Brandon, Man.), Higginson (Rat Portage), G. Bantock (London, Eng.), and Muir (Truro).

Mr. Thomas Bryant, of London, Eng., was introduced, and invited to take a seat on the platform.

The Nominating Committee was then appointed:—Drs. Praeger (Nanaimo), Chown (Winnipeg), Malloch (Hamilton), Taylor (Goderich), McKeough (Chatham), Thorburn (Toronto), Powell and Wright (Ottawa), Lachapelle, Armstrong and J. Stewart (Montreal), and Christie (St. John).

The following were then duly proposed and seconded, and elected members of this Association:—

R. C. Kirkpatrick, Montreal.
J. D. Thorburn, Toronto.
A. L. Shanks, Howick.
— Conerty, Winchester, O.
C. W. Haentchell, Mattawa, O.
M. A. McFarlane, Ashton, O.
C. L. Easton, Smith's Falls.
A. E. Porter, Prince Albert, Sas.
J. R. Clouston, Huntingdon, Q.
— Long, Escanaba, Mich.
R. M. Canfield, Stanstead, Q.
J. H. Bell, Montreal.
A. W. Gardner, Montreal.
J. C. Shanks, "
J. G. McCarthy, "
J. H. B. Allen, Montreal.
K. Cameron, "
J. A. Springle, "
E. H. Blackader, "
— Proulx, "
— Foucher, "
— Laforest, "
— Chartier, "
— Delorme, "
— Fortier, "
L. Laberge, "
P. Brennan, "
D. Harwood, "
J. J. White, "
G. G. Campbell, "

J. L. Foley,	Montreal.	J. E. Molson,	Montreal.
R. Campbell,	"	A. Schmidt,	"
I. A. Brown,	"	D. DeCow,	"
F. E. Devlin,	"	D. A. Muirhead,	"
J. A. Lockhart,	"	W. J. Telfer,	"
A. D. Stewart,	"	H. H. Marceau,	"
W. G. Stewart,	"	W. A. Farwell,	"
J. McBain,	"	W. de Mouilpied, Hemmingford, Q.	
A. E. Vipond,	"	E. Chevalier, Bedford, Q.	
J. M. Jack,	"		

The meeting then adjourned to the Hotel Dieu, where, after partaking of lunch, the members were conducted through the buildings of the hospital, and there several cases of interest were demonstrated by members of the staff.

Afternoon Session.

The meeting being called to order by the President,

Dr. Bray (Chatham) then read the address in Medicine, entitled "Malaria, its Relation to and Influence over other Diseases." Discussed by Drs. Christie and Jas. Ross.

Dr. Barbour (Edinburgh, Scotland) was then introduced and invited to a seat on the platform.

Dr. W. Gardner read his paper, "Pregnancy with Ovarian Tumour: three Ovariotomies." Discussed by Drs. Barbour, Alloway, L. Smith, Sloan and Ruttan.

Dr. A. L. Smith said that on account of the frequent association of pregnancy and undiagnosed ovarian cysts and pus tubes, he would particularly caution all accoucheurs to handle the uterus gently after labour and during expulsion of the placenta, for fear of rupturing these diseased structures and thus setting up a septic peritonitis. The rough handling (so-called "expression") was generally quite unnecessary, as the placenta will usually come away of itself if given time. But should the accident happen, and peritonitis develop, no time should be lost in palliative treatment, but laparotomy should be at once resorted to, and thus many valuable lives would be saved. In fact it was the only chance of saving the woman, and if done early enough was a good one. He had himself had two deaths in five hundred confinements, and both were due to a septic peritonitis. In one of them he strongly suspected this accident had happened, as the patient had to be artificially delivered, and he was confident an early operation would have saved her.

Dr. V. P. Gibney (New York) then read his paper, "Early Diagnosis, the most important factor in the Treatment of Hip-joint Disease."

Discussion.

Dr. A. M. Phelps (New York)—We can congratulate ourselves on having heard such an able paper as Dr. Gibney has given us. In the main I agree with him. I do not, however, use steel braces, because they are difficult to make and fit, and then they are, in my opinion, no better than the plaster-of-Paris or wood corset. The Taylor brace acts only as an antero-posterior splint, and cannot possibly hold the diseased spine if the sides of the vertebræ have been destroyed, thus producing the lateral curvature which so often complicates cases of Potts' disease. An early diagnosis is all important. In young children complaining of abdominal and thoracic pain, accompanied by rigidity of the spinal column and pain on flexion, Potts' disease should always be suspected. Movements of the body while the child is sitting will bring out rigidity of the spine if Potts' disease is present; the child on its back will also hold the spine rigid when the head is raised by the hand. No brace can be adjusted to a child under three years of age which will support the spine, and such cases should be treated by extension in a Sayre's wire cuirass or a plaster-of-Paris bed.

Dr. Shepherd emphasized the necessity of careful examination of all these cases. He drew attention to the difficulty of an early diagnosis; and yet this is the very thing which the general practitioner has to grapple with, so that it is small wonder if he sometimes overlooks it. The gait of the patient often tells us what is wrong; and a few days' rest and extension may clear up a doubtful case.

Dr. Bell favoured plaster-of-Paris supports in preference to steel braces.

The President agreed with the previous speakers as to the necessity of careful examination, and for this he considered Sayre's method the best—that is, to place the child face downwards across the knees, then widening the knees and pressing down on the child's back, when any tender points will be brought

out. He favoured light braces in young patients and in the early stages of the disease, because the weight of the plaster-of-Paris jacket was often too much for children.

Dr. Foucher (Montreal) read his paper, "A Contribution to the Etiology of Dacryocystitis."

Dr. Buller drew attention to the fact that while constitutional affections play an important part in the etiology of this affection (dacrocystitis), still the main factor in most cases was of a purely local character. Occasionally, but not often, simple conjunctivitis was a cause of it. Another cause was the toxic effects of such irritant drugs as jequirity, applied for granular ophthalmia, although this disease is not in itself a cause. One curious example of this disease the speaker had often seen, but had never heard satisfactorily explained, and that was its appearance in neonati. It was usually confined to one eye, and tended to spontaneous cure, though the case was apt to be very tedious.

The meeting then adjourned, many members availing themselves of the kind invitation of the President of the Electrical Association to visit the Electrical Exhibition, then in progress.

Evening Session.

The chair was taken by Dr. Jas. Ross (Toronto) at 8.30.

The President then delivered his interesting address. (See page 241.) Discussion upon the address was postponed until Thursday morning.

Moved by Dr. Bray, seconded by Dr. J. Christie, that the President be tendered a vote of thanks for his able address. Carried.

The Secretary then read an invitation from Sir William Dawson to the members of the Association to visit the Redpath Museum.

An invitation from the Secretary of the Board of Governors of the Royal Victoria Hospital was read, in which the members were invited to inspect the buildings of this institution.

Dr. Phelps (New York) then read his paper on "The Mechanical Treatment of Hip-joint Disease."

Discussion.

Mr. Thos. Bryant said that he quite agreed with the prin-

ciples laid down by the reader of the paper. He did not believe that immobility of a joint would produce ankylosis, because among the Chinese, where frequently a limb would be tied up from childhood, the joints in such cases are found perfect. The muscles become wasted and the limb consequently useless. When the seat of the trouble is in the bone, which has become chronically inflamed, treatment will cure it; but when it is situated in the synovial membrane, the disease is usually tubercular. For this information we have to thank our friend Dr. Koch. In this latter case the disease goes on steadily in spite of treatment. Thus we can explain why in one case the treatment succeeds and fails in another. This is also the reason why it is difficult to divide the disease into stages, or to prophesy results with any degree of accuracy. When a man says he has a case in the first or second stage of the disease, I want to know what he means, which form of the disease is he dealing with. However, in the later stages, when the joint becomes disorganised, we can tell pretty well what we will find. The bone is then not capable of recovery. The part is dead and must be exfoliated and removed. We may then either excise a portion of the bone or merely remove the sequestrum, the operation to be decided by the case. We should not operate too early, because even after pus has formed recovery may take place if the process can be stopped. In the early stages of the disease *immobility* is the great thing. Years ago Hilton laid it down. It is the great principle in the treatment of all joint diseases. In this joint there must be immobility, and there must be extension. Personally he likes to employ elastic extension. The splint shown is a very useful one, but has some imperfections, as, for instance, the child would have to be frequently removed from it owing to soiling. Complete recovery takes a very long time. A splint should be worn for months after all symptoms disappear, in fact would almost say for years. In regard to the muscles, the trouble lies mainly with the strong adductors, and the continued action of these produce constriction of the pelvis and shortening of the limb. As long as there is any tendency to adduction a splint should be applied, at any rate at night.

DR. GIBNEY remarked that all were waiting anxiously for the publishing of the results of Dr. Phelps' cases. Personally he likes the long hip-splint, as he gets better results with it. When there is much deformity, and it will not readily yield to extension, he is in the habit of correcting it by mannal force under an anæsthetic. He does this only in what is known as the first and second stages. The treatment takes a long time, and to judge of results, takes years.

DR. HINGSTON stated that his experience had been that both the accession and cure of the disease had been quicker when the softer parts of the joint were affected. When the periosteum and bone were affected the process was much slower. Extension can be gained more effectually by means of a weight and pulley than by splints. The great advantage of the weight and pulley is that you know just what force is applied, and you can judge how much to apply within the limits of safety and efficacy, while in splints the amount of extension varies. He agrees with Dr. Phelps about spasm of the muscles taking place about the inflamed joint and causing much trouble by keeping up the inflammation. This, however, was never a cause of the inflammation. Had never met with a case in which the glutei were affected. It was almost always the tensor femoris and the adductors. In ninety-nine per cent. of the cases we find the limb adducted and flexed. When pus has formed, in his experience it does not resolve, but will eventually show itself externally.

DR. SULLIVAN has found that the great difficulty is to maintain rest. It is almost impossible to convince the friends of the patient that it is necessary. It is hard to decide which splint to use, as there are so many and they are expensive. On this account the simpler ones are advantageous.

DR. FENWICK rose amid loud applause. In his opinion it matters little what form of splint we use, so long as we put the part at rest. This is the great principle to be aimed at. He prefers the weight and pulley. The splint shown is like breeches formerly used with such good success.

DR. CHRISTIE remarked that in the country parts young men had great difficulty in getting appliances. He advises all to

strive to diagnose these cases early and then give the joint absolute rest. If this is done a large proportion will recover. He never could see the *rationale* of Dr. Sayre's splint. In his hands extension had not given very good results, probably because the cases were not in a suitable stage. He would repeat that the great thing is rest. Patients will not continue treatment long enough. If you put the part thoroughly at rest you will not require extension. He uses plaster-of-Paris or starch for this purpose, and envelops one half of the body from axilla to foot.

The PRESIDENT briefly stated that he preferred to use the weight and pulley, and when acute symptoms had subsided, to apply a Thomas's splint and allow the patient to go about. The great advantage of this form of splint is that it can be made by any blacksmith.

In reply, DR. PHELPS said that, according to the title, his paper only referred to the mechanical treatment of hip-joint disease. The treatment of ankylosis is by no means settled in this country. We do not by any means get abscesses in all cases, as we should do were they all tubercular. He would use this splint in all stages of the disease. We do not use elastic extension now, as we think it is better to last the foot to the splint. The splint is only to be used after the acute symptoms subside, and should be continued until no deformity or limp is apparent. As long as the patient is kept in bed the weight and pulley are all right, but we wish to get them out of bed as soon as possible. The glutei muscles produce abduction in the first stage. The second stage is merely an exaggeration of the first. In the third stage we get adduction. Frequently when pus is removed from a joint by aspiration it does not return. Regarding the expense, the splint shown costs about $2.50. He agreed with what the President had said regarding Thomas's splint, because next to his own he preferred it to all others. In spite of every care, however, abscesses would form in some cases.

THURSDAY MORNING (17TH).

The President in the chair.

Minutes of the last meeting were read and confirmed.

Dr. Mullins' notice of motion, given at the last meeting, was read, but, owing to Dr. Mullins' absence, it was moved by Dr. Bray, seconded by Dr. Taylor, that this motion be kept over pending Dr. Mullins being present later on.

The President's address was then discussed by Drs. Bray, Moore, Hon. Dr. Sullivan, Harrison, Sloan, Sir James Grant, Mr. Thos. Bryant, and Dr. Brosseau.

Dr. Sloan gave the following notice of motion: That the meetings of the Canadian Medical Association be held triennially.

The meeting then adjourned to the Montreal General Hospital, where the members of the Association and visitors were shown cases of varied interest. After partaking of lunch, an adjournment to the Royal Victoria Hospital was made, where the members and visitors were kindly shown through the buildings.

AFTERNOON SESSION.

The President in the chair.

The Nominating Commitaee, through the convener, Dr. Praeger, reported as follows:—

That Ottawa be the next place of meeting.

President—Dr. Bray, Chatham.

Vice-Presidents—For British Columbia, Dr. Praeger (Nanaimo).
Manitoba, Dr. Jones (Winnipeg.
N. W. Territories, Dr. Lafferty (Calgarry).
Ontario, Dr. Prevost (Ottawa).
Quebec, Dr. L. E. Desjardins (Montreal).
New Brunswick, Dr. J. Christie (St. John).
Nova Scotia, Hon. Dr. Farrell (Halifax).
P. E. Island, Dr. McLeod (Charlottetown).

Local Secretaries—British Columbia, Dr. Fagan (New Westminster).
N. W. Territories, Dr. Kennedy (Fort McLeod).
Manitoba, Dr. Riddell (Crystal City).
Ontario, Dr. McKeough (Chatham).
Quebec, Dr. Cotton (Cowansville).
New Brunswick, Dr. Daniel (St. John).
Nova Scotia, Dr. Morrow (Halifax).
P. E. Island, Dr. Johnston (Charlottetown).

General Secretary—Dr. H. S. Birkett (Montreal).

Asst. Secretary—Dr. J. M. Elder (Montreal).

Treasurer—Dr. W. H. B. Aikins (Toronto).

Moved by Dr. Proudfoot, seconded by Dr. Powell, that the report of the Nominating Committee be accepted and adopted. Carried.

The address in Surgery was then read by Dr. Praeger (Nanaimo).

Discussion.

MR. BRYANT—The reader of this paper has not gone into the question of the pathological condition of the spinal cord in these injuries. If it is irreparably damaged, no form of operation could be recommended. In one sense, and one only, is there an analogy between the brain and spinal marrow, viz., that both float in fluids, and therefore any severe concussion of these may lead to loss of function (paralysis) of the natent organs. Thus we may get very grave symptoms without any trace of fracture or displacement, and in these cases we cannot interfere. But in cases of spinal paralysis accompanied by bony deformity, traumatic or otherwise, what are we to do? In these days of antiseptic surgery the answer is plain: we must reduce the deformity if at all possible. In all such cases we should resort to the judicial use of extension and pressure to reduce the deformity. I especially insist on *pressure* over the bony prominence accompanying extension, as greatly favouring reduction. Having accomplished this, our next object is to secure immobility, and for this I know of nothing better than a good-fitting Sayre's jacket. This is the main feature of the treatment, viz., to secure perfect rest for these lacerated parts, and thus promote absorption of exudation and forestall the abscesses which are so liable to occur. As regards the so-called trephining, or elevation of the spinous processes, we are still in an expectant state, and cannot lay down any rules. The best guide for local operation is the presence of localized pain: for if the cord is irreparably injured we have cessation of function and consequently no pain; contra, if there is pain, we may hope for recovery by proper treatment. My own experience is limited, but I recollect one case in which I removed the lamina and the pain ceased, and though the paralysis persisted, the patient lived for years. Let us move with caution, then.

SIR JAMES GRANT drew attention to Charcot's researches on this subject, and gave an account of two very interesting cases he had met with lately, where a peripheral irritation amounting almost to neuralgia was a reflex of spinal disease. There were no physical lesions and no definite injury to the cord, but twelve years previously the patient had pain in the dorsal region. Examination showed one elevated spinous process in that region, pressure on which caused all the characteristic symptoms and aggravation of the peripheral neuralgic pains. Rest cured both these cases. The speaker insisted on a careful examination of the spine in all cases of general indefinite neuralgia.

A vote of thanks was tendered Dr. Praeger for his able address.

Dr. Fenwick then read his paper on "Calculous Pyelitis," which will appear in our next issue.

Discussion.

MR. BRYANT, after referring to the pleasure with which he had listened to the paper, said that he would not discuss the symptoms of this disease; he would suppose the diagnosis made and would pass at once to the treatment. It is well known that in all cases a stone in the kidney does not demand removal. How often it is that in the post-mortem room we find them, when during life they have given rise to no symptoms. They should only be removed by operation when they interfere with the vital functions. The incision described by Dr. Fenwick is the usually accepted one. There is another class of cases in which the treatment to be adopted is not so clear; that is, suspected stone in the kidney. We get a more or less complete train of symptoms—pain, pus in the urine and sometimes blood, tumour in the loin. Is it or is it not a stone? We may set aside those rare cases of disease of the ureters. He drew attention to the importance of examination of urine for pus in the diagnosis of these cases. Where the pus occurs unmixed with mucus, it comes from the kidney. In all cases in which the pus comes from the bladder, it is more or less mixed with mucus. How are we to treat these cases? One man says at once—cut down. He may be right. Would advise a more conservative course. Experience of results

in these cases differs very much. He has cut down on twenty or thirty kidneys, in some of which the stone was not diagnosed. He opens the abscess and irrigates the cavity thoroughly, mopping it out with a sponge held in a pair of forceps. The cavity heals in time. Has never had occasion to remove a kidney. Sometimes the recovery is so slow that we may regret not having removed the diseased organ, but with a little more care and attention to cleanliness and treatment it gets well. Open freely and drain thoroughly, irrigate daily, and trust to nature for recovery. All must feel that frequently kidneys are removed unnecessarily.

DR. HINGSTON thinks that one should not be unduly timid about the condition in which we find the case. He has operated with good results when the patient was apparently in a hopelessly bad condition. If satisfied that the patient was dying from the effects of a stone in the kidney and nothing else, he would not hesitate to operate.

DR. SHEPHERD remarked, in connection with the operation of removal of the kidney, that sometimes owing to adhesions to surrounding parts such a procedure was extremely difficult. He would prefer to remove the stone and wash out the cavity, for as long as any of the secreting tissue remained the organ could perform a certain amount of work and relieve the other. In a case in which he had removed the kidney, the patient died five years after of calculous pyelitis in the other kidney, obstinately refusing any further operation. Sometimes operation relieves all the symptoms although no stone is found and the kidney not removed, although previously the symptoms have been most marked. He instanced the case of a street car driver who had been fully relieved by such an operation.

DR. ARMSTRONG merely called attention to two points. The first, that frequently a stone gave rise to no symptoms, and, secondly, the intermittent nature of the symptoms, illustrating his remarks by the history of a case. He called attention to the amount of recovery that could take place in an apparently hopelessly damaged kidney.

Dr. A. B. MacCallum (Toronto) read his paper on "The Pathology of Anæmia."

Dr. Cotton read a paper on "Appendicitis." (See page 268.)

Discussion.

DR. ARMSTRONG gave the history of a case illustrating the beneficial effects of early operation. If the abscess is not opened early it may open into the peritoneum, or otherwise terminate unfortunately. If the symptoms are marked he would not delay operation more than thirty-six hours.

DR. PRAEGER emphasized the dangers of delay in operating. As a rule, the cases do not present themselves early enough. He would advise cutting down even if we find that the case might have got through without. No harm is done if ordinary precautions are taken and we prevent a recurrence of the disease. Opium is of very doubtful benefit, as it masks the symptoms. He would prefer to use sulphate of magnesia if he used any drug.

DR. POWELL thought it would be a bad rule to operate as soon as we were sure we had appendicitis. He would ask Dr. Praeger if he would cut down unless he was sure that he had suppuration.

The PRESIDENT quite agreed with the paper and with the remarks of Dr. Armstrong. We are constantly being deceived, as shown by a case he mentioned which presented all the symptoms of suppuration and yet resolution took place; operation had been suggested and refused by the friends. He also spoke of another case in which the operation had been postponed for a few hours, during which there was marked improvement and the patient finally recovered. Sometimes an operation is decided on too hastily. Many cases get well without an operation, while in others no operation will save life. A median course should be pursued. He would like to bring forward the use of calomel. Mr. Hutchinson gives as his belief that calomel is almost a specific for this disease. It should be given in small doses frequently repeated until it acts on the bowels. In several cases in which the speaker had tried it the results had been good. He gives gr. 1-10th every two hours.

DR. SLOAN quoted two cases in which he had been prepared to operate, and when the appointed hour came the improvement was so marked that the operation was postpooed indefinitely, and they recovered. Has been in the habit of giving calomel in slightly larger doses, gr. i every two hours, and has had very happy results.

DR. DUPUIS has always given calomel, for, as he remarked. he had been brought up on calomel. He gives smaller doses now than he did formerly—one grain frequently repeated. He gave the history of a young man who had been suddenly seized with this disease. An abscess formed and burrowed under Poupart's ligament until the whole thigh became a bag of pus. It was opened, but the patient died. Also a case which was in hospital, in which the abscess opened spontaneously in front, and finally a small stone came out. As the abscess cavity was large it was drained from the back, through the quadratus lumborum muscle. Recovery was slow.

DR. SMALL rose to ask what should be done in those recurrent attacks in which the patient is laid up for a few days every few months. He called attention to the beneficial effects of the local application of ice.

DR. COTTON replied very briefly, as time was limited. He said there were two forms, the plastic and the suppurative. The former got well without surgical interference, but the latter demanded operation. He would wait until pus formed to operate. In recurrent attacks he would remove the appendix at any time.

The meeting then adjourned.

FRIDAY MORNING (18TH).

The meeting being called to order by the President, the minutes of last session were read and confirmed.

Drs. Powell and Edwards were appointed auditors.

Dr. Dupuis read his paper on "Malignant Growths." Discussed by Drs. Shepherd, Daniel and Sloan.

Dr. Shepherd then read his paper on a "Case of Strangulated Cæcal Hernia." Discussed by Drs. Daniel and Roddick.

Dr. Buller read a paper entitled "Conservative Surgery

the Eye." Discussed by Drs. L. E. Desjardins, Mills, Foucher, Gardner and Osborne.

Dr. Fenwick proposed, seconded by Dr. Jas. Ross, that Mr. Thomas Bryant, of London, England, be elected an honorary member of this Association. Carried.

Dr. Alloway read his paper, "Excision of the Cervix Uteri in cases of long standing Laceration and of Proliferating Endometritis." Discussion postponed until the afternoon session.

Dr. Powell gave the following notices of motion :—

1. That only delegates and visitors from places outside the Dominion should have the privileges of registration without a fee.

2. That a definite annual fee for membership to the Canadian Medical Association be established, and that the present system of collecting a registration fee from those present at the meeting be abolished.

Dr. Aikins (treasurer) read his report, in which he stated that the present meeting has been the most successful in the history of the Association—the enrolled membership being one hundred and thirty-five, the largest hitherto known.

Dr. Powell presented the auditors' report, which was received and adopted.

The meeting then adjourned to Notre Dame Hospital, where the members of the staff brought many interesting cases to the notice of the visitors, after which lunch was partaken of.

Afternoon Session.

The President in the chair.

Dr. Alloway's paper was discussed by Drs. W. Gardner and L. Smith.

Dr. Wilkins read his paper, "Cold Baths in Typhoid." Discussed by Drs. Ruttan, Powell, George Ross, Sloan, and James Stewart.

Dr. Small (Ottawa) read his paper, "Malignant Disease of the Cervix Complicating Labour." Discussed by Drs. Lapthorn Smith, Wm. Gardner, and James Ross.

Dr. Wyatt Johnston (Montreal) demonstrated a new method of obtaining samples of water at any depth below the surface.

Dr. Elder gave a brief summary of his paper on "Traumatic Separation of the Lower Epiphysis of the Femur," and exhibited the patient. Discussed by Dr. Shepherd.

Dr. W. Johnston gave a demonstration of "The Sputum in Heart Disease."

Dr. McConnell read his paper on "A Case of Impacted Gallstones followed by Abscess of the Liver," and exhibited the pathological specimen.

Dr. George Ross made a few remarks upon the case.

Dr. L. Smith read a paper on "A Further Plea for the A.C.E. Mixture.

Dr. Proudfoot gave a brief outline of a case of "Occlusion of Auditory Meatus by Hyperostosis."

A paper by Dr. Slayter, "Is Cancer on the Increase in Canada?" was accepted as read.

Notice of motion by Dr. Powell: "That in future a stenographer be engaged to report the proceedings of the Canadian Medical Association in order that an official record may be preserved."

Votes of thanks were then passed as follows:—

(1) To the Very Reverend the Dean of Montreal for having placed at the disposal of the Association the splendid schoolroom of St. George's Church.

(2) To the various railroad and steamboat companies for issuing reduced rates to the members of this Association.

(3) To the Bell Telephone Company for having placed an instrument in the building for the use of the members.

(4) To the manager and directors of the Quebec and Lake St. John Railway for the kind invitation to visit Robervale.

(5) To the Governing Board of the Royal Victoria Hospital for the kind invitation to inspect the buildings of that institution.

(6) To the profession of Montreal for their kind and appreciated hospitality.

(7) To the retiring President for the able manner in which the business of the meeting has been conducted.

The meeting then adjourned.

THE ANNUAL DINNER OF THE CANADIAN MEDICAL ASSOCIATION.

The banquet tendered by the members of the profession in Montreal to the guests and visiting members took place in the evening of the 17th of September, in the Windsor Hotel. One

hundred and thirty guests were present. Dr. Hingston presided, and on his left were Mr. Bryant of Guy's Hospital, London, Sir James Grant, Dr. Fenwick, Dr. George Ross, Dr. Sexton of New York, Dr. McEachran, Dr Marcil, M.L.A., of St. Eustache, and Dr. Buller; on his right being Dr. Roddick, President of the Association, Hon. Dr. Sullivan of Kingston, Dr. James Ross of Toronto, Dr. Taylor of Goderich, Mr. H. R. Gray, President of the Pharmaceutical Society, Montreal, and Dr. Bridges of the New York State Medical Society. The vice-presidents were Dr. Shepherd, Dr. E. P. Lachapelle, Dr. James Bell, and Dr. Guerin.

Dr. H. S. Birkett, the Generel Secretary, read letters regretting their inability to attend from His Excellency the Governor-General, Lieut.-Governor Angers, Consul-General Knapp, Hon. Dr. Paquet, Dr. Joseph Workman, Hon Dr. J. J. Ross (the new Speaker of the Senate), Rev. Dean Carmichael, and Dr. H. P. Wright (Ottawa).

The toasts of "The Queen," "The President of the United States," "The Governor-General," and "The Lieut.-Governor of Quebec," were proposed and heartily drunk; and that of "The Army, Navy and Volunteers" was proposed by Dr. Buller in a neat speech.

Dr. Cameron responded for the army, Dr. Bell for the navy, and Dr. F. W. Campbell for the volunteers. Dr. Mount, who was also called upon to respond, did so by singing "Le Brigadier," in the chorus of which nearly all those present joined with great heartiness.

The toast of "Our Guests" was proposed by Dr. Shepherd, who referred with satisfaction to the fact that the visitors had come from the West and the East of the Dominion, from the neighbouring Republic, and from England. Mr. Bryant's mature wisdom had added very much to the interest of the meeting of the Association. Dr. Roddick had referred to the Association as being in a decrepit condition, but the number of doctors present at that banquet proved that he was wrong. (Cheers,)

Dr. Powell of Ottawa briefly responded, and immediately afterwards gave a harmonious song entitled "McCarthy," which was received with loud applause,

Dr. Guerin also responded briefly, and, recalling his student

days, sang "Alma Mater," a ditty which seemed to be familiar to most of his hearers.

Dr. Charles Wilson was next called upon, and he, too, responded with a song, a clever parody on a melody from "Patience," and entitled "If you're anxious to shine as a fully-fledged M.D." Dr. O'Connor next sang a funny, clever and witty song, "I Stood by the Open Window." Dr. Harwood then sang "Alouette," to the evident gratification of all.

Mr. Bryant, who was greeted with loud applause, brought the diners to a more serious frame of mind by a speech in which he referred with emotion to his surprise at the enthusiastic manner in which he had been welcomed at the meeting of the association. He had never, he said, been the recipient of a more cordial welcome anywhere than he had been in Montreal. He had been astonished at the warm-hearted hospitality that had been extended to him, and he would ever cherish a kindly remembrance of his visit to Montreal. He had been merely a passing traveller through the city, having arranged to stay only forty-eight hours, with the object of visiting a few of his medical friends here, and he had been delighted to accept the invitation that had been sent to him to be present at the meeting of the association and at their banquet.

Dr. Dupuis, of Kingston, Dr. Harrison, Dr. Muir, of Brockville, Dr. Frazer, from British Columbia, and Dr. Christie, from New Brunswick, also spoke in reply.

Dr. Marcil, who was last called upon, made one of his characteristically eloquent speeches in French. He said that there was no such thing as annexation or so-called reciprocity in the science which the members of the association followed, for that science had for its object the benefit of humanity and knew no political barriers.

The Chairman, in proposing the toast of the "Canadian Medical Association," indulged in some reminiscences which seemed to affect him deeply. He had been the first secretary of the association, had been vice-president of it several times, and once had had the honor of being its president. He combated vigorously the assertion made by Dr. Roddick in his inaugural address as president, that the association was dying out. It was living and energetic, and had a great future be-

fore it. The cases which they had seen that day at the General Hospital, and which had been treated by such men as Dr. Shepherd, Dr. Bell, Dr. Armstrong and Dr. Sutherland, showed that Canadian doctors had achieved successes in their profession, which even Mr. Bryant, of London, had said he had never seen equalled. (Applause.) He also condemed the suggestion of holding triennial meetings of the association. It was an enormous advantage for the doctors from the east and the west of the Dominion to come together once a year and exchange their experiences. He also animadverted upon the fact that the licenses issued to practitioners in one province were not held to be sufficient in another, and he expressed a hope that the day was not far distant when these restrictions should be removed, and when the grand scheme of confederation should include the practitioners of the whole Dominion in the circle of its influence. In conclusion, he spoke in terms of eulogy of the ability and integrity of his friend, Dr. Roddick, whose name he coupled with the toast.

Sir James Grant, Hon. Dr. Sullivan, Dr. Roddick, Dr. Geo. Ross and others replied.

We publish in full Sir James Grant's eloquent speech on this occasion. The Hon. Dr. Sullivan replied in his best form, and our only regret is that we were unable to obtain a full report of what proved to be a very able and humorous speech.

Sir James Grant's reply to the toast of the Canadian Medical Association :—

Mr. President and Gentlemen,—I thank you for the opportunity of making a few observations on the Canadian Medical Association and the various points incidentally allied with our profession in the great march of progress at the present time. The subjects of our medical curriculum and the change to five years of study, as well as the advanced matriculation examination, appear to be very acceptable to the members of the medical profession and the colleges generally. What we now require is one central authority from which degrees in medicine and surgery can be obtained by the passing of a thorough uniform medical examination for the whole Dominion. At present it is not in keeping with the best interests of the profession in Canada to

set one province up against the other. This whole subject, if brought under the attention of the proper authorities, will in time be rectified, and thus much good accomplished. By the British North America Act educational matters are under the control of the several provinces. This will require a change so far as our profession is concerned, and surely what is identical with the dearest interests of our common country will not be refused. It is now twenty-four years since this Medical Association was organized, and during that period its ebb and flow has been more or less spasmodic, and why so, it is difficult to define. This Montreal meeting is certainly most successful, there being quite a large attendance, members being here from the Atlantic and Pacific Provinces, as well as from many intermediate points. The papers read were of a most practical character, and the demonstrations at the hospitals point out in the most undoubted manner that medical science in Canada is keeping pace with that of the outside world. I am confident the President of the Royal College of Surgeons, Mr. Bryant, who is with us to-day, will carry back to England a most favourable impression of our medical schools and our hospitals. Such gatherings as the present cannot fail to be productive of benefit. The intellectual friction resulting from the commingling of ideas and exchanging of sentiments, in the discussion of the various papers brought before the Association, must result in much good to our profession. Attendance at these Association meetings is a duty the members of the medical profession owe to their constituents; by coming here they see the evidence of the progress being made in the vast collection of medical and surgical appliances, and, in fact, everything that tends to the welfare of the public requiring their assistance in their particular spheres of duty. I feel confident that the sentiments expressed by our worthy President, Dr. Roddick, as to the languishing of our Society are overdrawn—it appears to me that fuller life and vigour is being thrown into the Association,—and at the next meeting at Ottawa I hope to see a large increase in the attendance from the various sections of the Dominion. Medical gatherings are now the order of the day. Recently a great congress of Hygiene, numbering some

3,700 members, from all parts of the civilized warld, assembled in London. There the most important questions with reference to hygiene and hygienic precautions were discussed in an able and comprehensive manner, and there was one undoubted evidence of advancement which touches very closely the workings of the institutions of our own country, and for that reason I wish to advert to it very briefly,—it is the necessity of an alliance of veterinary science and pathology with medical science in order to trace up more closely the intimate relationship that exists between the quadruped species and the genus homo. Much good of a practical nature will thus be accomplished tending to advance the welfare of the people. The subject of tuberculous meat, and the spread of consumption from the use of this form of impure food, is certainly worthy of the closest investigation. I trust the day is not far distant when the Government of Canada, like that of Germany, will see the necessity of the establishment of abattoirs presided over by scientific experts, who will test carefully the various descriptions of meat before they are distributed to the public. Thus, undoubtedly, the spread of disease through such channels would be very materially curtailed. Again, the closer association of veterinary science and medicine, if only resulting in the organization of a board to watch carefully the cattle trade of England and Canada, would certainly be productive of great benefit to our race. The progress of medical science at the present day is very marked in every department, and to keep abreast with it, the most careful observation and the closest inquiry and study are required, such as we have an opportunity of pursuing in meetings like this of the Canadian Medical Association. Time is an important factor in the accomplishment of everything, and when we trace the grand achievements brought about by that father of medicine, Sydenham, who labourod so vigorously in the 17th century, it should be a source of encouragement to us who are now labouring in the same field of study. We have with us this evening many devoted teachers in the various rôles of our profession, and no position in life stands higher than the noble calling of him who devotes his energy and ability to the imparting of informa-

tion such as is necessary for the thorough comprehension of the operation of the human system. Many of our old teachers are to-day absent in person, but they are here in spirit. Their influence lives after them, and as the outcome of their life's work we find at the present moment active, able, and energetic professors carrying on the onerous duties connected with our medical institutions. How gratifying it would have been to such men as Campbell and Howard, Fraser and MacCulloch, Bruneau and Hall, to witness the marked progress of our young professors in the hospitals to-day, and certainly they would delight also in the names of such men as Osler and Mills, and that of the able gentleman who now presides over the Canadian Medical Association, Dr. Roddick. The pleasurable emotions of teachers towards their pupils are not characteristic only of the present, but were strongly perceptible in the past amongst the great ones of the earth whose names have descended to us as cherished heirlooms. Voltaire said of Homer he delighted in conning over the genius and ability of his pupil Virgil, and so in like manner Virgil was charmed at the intellectual ability of a spirited youth who was under his tuition. Again, Sir Humphrey Davy had great pride and satisfaction in his associate Faraday, whose investigations in electricity have marked an era of advancement in electrical progress. Thus pupils give unbounded pleasure to their teachers, and the sympathy between them is most marked. Let me say here that the question of hospitalism is intimately allied with the working of the Canadian Medical Association, and for that reason it is well, in the selection of the place of meeting, to have as large a centre as possible in order to observe the greatest posssible amount of clinical study. Montreal, therefore, cannot fail to be very attractive, and when the new hospital, so generously endowed by two Canadian philanthropists, is finally completed and in operation, the facilities here for observation will doubtless be of immense service not only to the meetings of our Association but to those who are fortunate enough to receive instruction at this centre. Hospitalism in Canada is certainly now in the ascendant. When West a short time ago I was pleased to note at Medicine Hat a most charming hospital, built of cut-

stone, on the banks of the Bow River, equipped with all the modern appliances, and some of the most critical operations in surgery being performed by a graduate of the University of Winnipeg. Is this not a sure evidence of the progress and prosperity of our country such as will be a pleasure to every member of this Association? What a source of pride it must be to our profession to note the advancement of hospitalism generally! Where a few years ago such an institution was scarcely known, in China there are to-day upwards of one hundred and twenty in full operation; and, again, in Tokio, Japan, there is a medical laboratory in which all drugs and patent medicines are carefully analysed and reported upon before their sale in the country is permitted. What an advantage it would be to the Dominion of Canada if this Association could be the medium of the establishment of a laboratory of some description in order to lessen the indiscriminate use of the multifarious quack remedies that are scattered broadcast over our country. In this direction our Association doubtless can accomplish a good deal, and it is to be hoped the day is not far distant when Canada will be up and doing in this respect. It is said that the profession in Canada is very much overcrowded—that the system of education now being introduced will tend not only to advance the interests of its members, but at the same time reduce the numbers of those graduating. There is, however, always room in the upper rungs of the ladder of fame, and with the rapid development of the country and the progress that is being made in almost every direction in the great North-West, I feel sure that our young Canadian graduates will have ample scope for years to come for the exercise of their mental powers. The good reputation of Montreal as a medical centre, Montreal as a centre of advanced education, as well as of trade and commerce, is certainly most progressive. Its present is only an index to its future, inasmuch as its extending sea-port and shipping, and its rapidly developing connections east and west, cannot fail to make it a chief commercial emporium of the Dominion. Under these circumstances it is most gratifying to observe the progress of intellectual development through its greatly increased scientific and religious

institutions. In assembling here, the members of our Canadian Medical Association have not failed to note those facts, inasmuch as the surroundings generally indicate advancement characteristic of the spirit of the age in which we live. In conclusion, let me wish our Society a long and prosperous life, with greatly increased usefulness.

THE PROVINCIAL MEDICAL BOARD.

The semi-annual meeting of the Provincial Medical Board was held at Quebec on Wednesday, 30th September. There were present Drs. R. F. Rinfret, M.P., Alfred Morissette, F. G. Austin, Jules Prévost, E. P. Chèvrefils, l'Hon. M. Marcil, H. A. Mignault, J. M. Beausoleil, Robt. Craik, L. J. A. Simard, Geo. Ross, Côme Rinfret, A. Lagenais, Thomas Larue, L. J. E. Desjardins, J. H. L. St. Germain, L. T. E. Bousseau, Léonidas Larue, P. Laberge, A. Vallée, C. E. Lemieux, écr., J. Lippé, P. M. Guap, M.P., F. Trudel, L. H. Labrecque, C. S. Parke, F. W. Campbell, and A. G. Belleau, secretary.

In the absence of Hon. Dr. J. J. Ross, President, the chair was taken by Dr. A. F. Rinfret, M.P., Vice-President.

After the adoption of the minutes, the report of the examiners for the preliminary examination was read, giving a list of students entitled to registration. The committee on Credentials made their report. The question of reciprocity with Ontario was left over until the next meeting. The committee for examination for license was appointed as follows, viz.: Surgery, Dr. C. E. Lemieux; Med. Jurisprudence, Dr. Vallée; Medicine, Dr. Geo. Ross; Mat. Medica, Dr. Jules Prévost, and Obstetrics, Dr. H. A. Mignault. One candidate only presented himself and was rejected.

The following holders of the Bachelor's degree were sworn and admitted to the study of medicine, viz.: MM. Bernard Miville dit Déchêne, B.S., St. Paschal, Kamouraska: Jean Marie Arthur Rousseau, B.A., St. Casimir, Portneuf; Gustave Augustin Côté, B.L., Ste. Anne des Monts; Félix G. Fortier, B.A., Quebec; Evariste Gélinas, B.A., St. Barnabé and St. Maurice; Jos. H. Richard, B.A., St. Maurice; R. B. Mackay, B.A., Montreal; Jean-Etienne-Jos.-Ph. Landry, B.A., St. Roch, Quebec; Joseph F. X. Bossé, B.A., St. Onzsime; Calixte Alp.

D. Masson, B.L., St. Anicet, Huntingdon; Ernest Cyr, B.A., Maria, Baie des Chaleurs; Walter J. LeRossignol, B.A., Montreal; Joseph Lapierre, B.S., St. Jerome; Aurélien Constantineau, B.S., Montreal; Alexis Lagacé, B.A., Montreal; J. A. Lortie, B.S., St. Justin de Mewlon; W. J. A. Derome, B.A., St. Jean Chrysostome; E. C. Campeau, B.A., Vaudreuil; Wm. F. Deeks, B.A., Montreal; Isaac L. Hargrave, B.A., Eden, Man.; Thomas Nelson Walsh, B.A., Ormstown.

A unanimous vote was passed congratulating the President upon his elevation to the Senate.

It was moved by Dr. Mignault, seconded by Drs. Craik and Parke: That the Governors of the College of Physicians and Surgeons of the Province of Quebec desire to express their regret at the loss which the College has sustained by the death of Dr. Thomas A. Rodger, one of the governors representing the district of Montreal. His influence amongst the members of this Board was deservedly great, being endowed with unquestioned talent, as well as of unchangeable good nature, as is admitted by all who came into contact with him. He always devoted himself heartily to maintaining the honour and best interests of his profession, of which he was a distinguished member. That this Board expresses their profound sympathy with the bereaved family.

The following graduates were sworn and received their license to practice, viz.: Roch Auguste Paradis, Lotbinière; Albert Aubrey, St. Stanislas de Kostka, Beauharnois; Joseph N. Perrault, St. François du Lac; George E. R. Fortier, Quebec; Alfred Arsenault, St. Bonaventure; C. J. M. Verge, jr., Quebec; Achille Chandonnet, St. Pierre les Becquets; Pierre V. Faucher, St. Foye; Gédéon Blanchet, St. Dominique, co. of Bagot; Alexis N. Bellemarre, Yamachiche; Georges Eugéne Guillemette, Bay St. Paul; Joseph L. M. Genest, St. Bernard; Chas. E. Augé, Drummondville; Georges Cloutier, St. Georges, Beauce; Camille Gariépy, St. Casimir; Arthman Bruère, Montreal; Elizabeth Walker (nee Bruère), Montreal (M.D. University of Paris); William Dougan, St. Catharines, Ont.; Jas. P. McIntosh, Connecticut, U.S.; John E. Molson, Montreal; Alexander Dewar, Winchester, Ont.; H. B. Ford, Morewood, Ont.; Achille Dagenais, Montreal; Antoine Chopin, Montreal; Charles Wilfrid Beaudoin, St. Bridget, Iberville; Jos. Poupore,

Montreal; George Sheriff, Huntingdon; William Fawcett Hamilton, Montreal; Joseph Elie Landry, Stanhope, Quebec; Ovide Normandin, Ste. Philomène; Alex. A. McCrimmon, Montreal; Neil Malcolm Watson, Williamson, Ont.; Thomas Beeth, Otenaw, Man.

A letter was read from Messrs. Martigny and Montpettit, representing the students of Laval, complaining of the paucity of subjects and the high price charged for them by the Inspecter of Anatomy. Another from Mr. George DeFoy offering to furnish bodies for dissection for $5 apiece.

It was moved by Dr. Dagenais, seconded by Dr. Beausoleil: That this Board recommends the Government to repeal the present law concerning the Inspection of Anatomy, and that an amendment to the Medical Act invest this Board with power to govern the inspection of anatomy. Carried.

Moved by Dr. Craik, seconded by Dr. Marcil: That whereas certain holders of the degrees of B.A., B.Sc. and B.L. have, through ignorance, neglected to have their degrees registered at the proper time, resolved—That to rectify this omission all who have so graduated since the promulgation of the Act up to the present date, and who have signified their intention to this effect, be considered as having been registered students of medicine from the date of their respective degrees. Lost by a vote of 7 against 15.

Dr. J. J. Dugdale was named assessor for Bishop's College in place of the late Dr. Rodger.

Dr. John A. McDonald, of Montreal, was elected a governor of the College in place of the late Dr. Rodger.

Dr. Lippé presented a scheme for a system of mutual life assurance amongst all the physicians of the Province, but no action was taken.

Dr. Beausoleil presented the Report of the Committee on Legislation. This will be printed, circulated amongst the members, and considered at a special meeting of the Board to be held on the last Wednesday in October, at Montreal.

THE

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THE CANADIAN MEDICAL ASSOCIATION.

The recent meeting of the Canadian Medical Association, held in Montreal, is unanimously allowed to have been the most successful gathering of this Association ever held. It is truly gratifying to the members who, year after year, have struggled to maintain the very existence of this Society to have their efforts crowned with such marked success. There is every reason to expect that the Association has seen the last of its struggles now, and that it has entered on an era of prosperity.

The prosperity of the parent Medical Association of the Dominion will not interfere with the success of the provincial and district associations. On the contrary, its success will have the tendency to rather increase the already prosperous provincial associations in Ontario and the Maritime Provinces. The attendance at the recent meeting was considerably greater than at any previous meeting. The papers read and the discussions were above the average of previous years.

An important feature of the meeting was the presence of several English and American surgeons, who took a very active part in the work of the Associatian. Mr. Thomas Bryant of London, the distinguished surgeon of Guy's Hospital, deserves special mention for the great interest he manifested in the proceedings and for the active part he took in the discussion of the surgical papers. Dr. Barbour of Edinburgh, and Drs. Gibney and Phelps of New York, were also present. Drs. Gibney and Phelps read papers which attracted much and well deserved attention.

As special contributors to the success of the meeting must be mentioned the President, Dr. T. G. Roddick, and the

General Secretary, Dr. H. S. Birkett. Both of these gentlemen spared no pains to bring about what every Canadian physician who was present endorsed—the unqualified success of the twenty-fourth annual meeting of the Canadian Medical Association.

NOTES.

—Dr. Praeger of Nanaimo read the address on Surgery at the recent meeting of the Canadian Medical Association. It was an able exposition of the present position of spinal surgery. It will appear in full in the next number of the JOURNAL. Dr. Praeger is one of the most progressive and able of Canadian surgeons.

—The address on Medicine by Dr. Bray of Chatham, on Malarial Diseases, was an excellent report on our present knowledge of this subject. Dr. Bray's extensive experience with disease in a malarial district well qualified him for the task he so ably performed.

—We were greatly pleased to see two of the oldest and warmest friends of the Canadian Medical Association present at the Montreal meeting. We refer to Dr. Sloan, formerly of Blyth, but now of Toronto, and Dr. Harrison of Selkirk. Oh! would that the progressive spirit of these gentlemen might multiply and infuse itself into the hundreds of slumbering younger, but not wiser, medical men that are spread over the length of this Canada of ours.

—A very successful and noticeable feature of the recent meeting was the daily demonstrations held at the various hospitals. On the first day of the meeting the Hotel Dieu Hospital was visited. Dr. Hingston gave an account of his elaborate method of investigating cases of abdominal disease. He also excised a hip joint. On the second day the theatre of the Montreal General Hospital was crowded with medical men to witness demonstrations given by Drs. Shepherd, Bell and Sutherland. On the third day the Notre Dame Hospital was visited. Demonstrations by Drs. Brousseau, Lachapelle and others were highly appreciated.

Personal.

—Ed. H. Woodruff, M.D., of Seattle, has been appointed Assistant Surgeon of the Northern Pacific Railroad.