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BY

R. MACNEILL, M.D., Stanley Bridge, P.E.I.

Delivered before the Maritime Medical Association, Charlottetown, July 12th, 1899.

HIGHER MEDICAL EDUCATION.

GENTLEMEN :

When, one year ago, in the historic city of Halifax, you placed me in the honourable position of President, I felt that after the eminent addresses which my predecessors in this chair had delivered there was nothing left for me to say. The choice of a subject is a matter of no little difficulty. Medical education, however, is one in which the profession of Canada is greatly interested, and this Association representing the Maritime Provinces of Canada, may consider the time opportune to review it, not only as it may interest the profession but the people in general. The profession for a long time felt our anomalous position in being hemmed in by provincial boundaries so that a doctor who was legalized in one province could not follow his profession in another without passing a rigid examination. To-day we witness the realization of reciprocity in the practice of medicine in these provinces and what has been accomplished here can be accomplished in all Canada. I need not refer to the oft discussed enactment, "The British North America Act" by which Canada was federated, leaving the question of education with each province. That matter is generally well understood. Medical education since the early days of the fathers of our profession has undergone many changes and no one will dispute the fact that the science of medicine has advanced notwithstanding the mighty opposition it has met with in its various epochs. It is somewhat unfortunate that when our profession will take a step in advance, many of the people view our actions with suspicion and particularly when we apply for

legislative enactments. No other profession is looked upon by the people in the same way. Account for it as you will, the public look upon us when trying to raise the standard of education with suspicion and distrust that it is a scheme to raise our fees. A little reflection would convince them that it is truly in their own interests and to protect their lives, and that mercenary motives are secondary with us while primary with the people themselves. Is it unreasonable that we should insist on a high standard of medical education? I think not. The Church precepts and text of the sacred volume require such a standard of educa- and a curriculum of seven or eight years including an arts course, and the people appear quite satisfied that it should be so. The disciples of Blackstone also require a high standard of education. The candidates must pass a preliminary examination and a course of five years. If the precepts and text of the sacred volume require such a standard of education, if the statutes of parliament and the common law require an equally high standard to interpret, what can be said against us requiring of our followers that they be educated men, when they have to deal with a constitution that is fearfully and wonderfully made? Instead of repulsive epithets we should be hailed by the people as benefactors.

There is no pursuit that calls for a larger display of the best qualities of human nature than the practice of medicine, and one of the most essential elements among medical men is a reputation for high qualifications and accurate knowledge of their profession. The great Dr. Pepper, when Provost of the University of Pennsylvania said "the vast improvements that have taken place in medical science, the additions to the positive knowledge of disease and of the means for its prevention and cure, the widespread interest among the community concerning all physical science, the prevailing sense of the supreme importance of private and public hygiene, the constantly increasing wear and tear of our complicated social life—all of these foretell the large part which our profession must play in the future and at the same time attest its power."

This covers the whole ground and is sufficient to vindicate our course. In order to convince the people and the profession that we are not travelling too fast, nor asking unreasonable things in our efforts to elevate the standard of medical education in Canada, let us briefly look at the state of medical education in other countries. Instead of being considered agressive, it will be seen that we are but humble followers in this movement. Superstition and mystery are fast fading away and the feeling with which science and medical men are regarded has undergone an equal change in all countries.

THE GERMAN EMPIRE.—(Population forty-one millions.)—There are twenty-three universities which confer the doctorate. To matriculate,

the applicant must either present a certificate of a gymnasium or pass a preliminary examination upon Latin, Greek, German, history, mathematics and the elements of natural science. The course extends over four years of nine and a half months in each year. The right to practise, however, can only be obtained by passing the State examination which is conducted by a board composed of the professors of the different colleges appointed annually by the Ministry. The degree of Doctor has no special privileges attached to it, other than that it admits the possessor to examination for official position.

AUSTRO-HUNGARIAN EMPIRE.—(Population about thirty-six millions.) There are six medical schools all supported by the government. To matriculate, the applicant must present a certificate from a gymnasium. The course of study extends over a period of at least five years, of about nine months in each year. Examinations are held at the end of the second year upon the various subjects of the first two years; and at the end of the fifth year upon the subjects of the preceding three years; two or three months after the latter examination the candidate must pass a third and final one, which secures the diploma of Doctor of Medicine, with the right to practise.

RUSSIA.—(Population over eighty-five millions.)—There are eight medical schools in Russia. To matriculate, the applicant must have a certificate from a gymnasium. The course of study extends over five years with examinations at the end of each year. The arrangement of the course of study is similar to that of Germany. Upon passing the final examination upon all the subjects of the entire course the candidate receives the right to practise with the title of "Physician." To obtain the degree of M. D., he must have the above title and must undergo a written examination, and also present a thesis. There was formerly a third degree, M. D., C. M., obtained after an examination in surgery, but it is now becoming obsolete.

SWEDEN.—(Population four and one half millions.)—There are two universities and one academy all of which confer the license to practise. To matriculate, the applicant must present a certificate from a gymnasium. Three years after matriculating the student is required to pass the medico-philosophical examination which includes physics, chemistry, mathematics, botany, zoology, and comparative anatomy. Three years later he must pass the examination for the academic degree of candidate in medicine which includes anatomy, physiology, physiological-chemistry, general pathology, pathological anatomy, and pharmacology. Four years later he must pass a final examination upon practical medicine and surgery, obstetrics, ophthalmology and medical jurisprudence. Upon passing the above examinations the candidate receives the right to practise. Attendance upon lectures is not obliga-

tory but the student is obliged to attend clinics for one and a half years. The course of medical studies is thus not less than ten years.

NORWAY.—(Population nearly two millions.)—The only medical school is in connection with the University of Christiana. To matriculate as a medical student the applicant must pass two preliminary examinations, one in arts, including Norwegian, Latin, Greek, French, German, English, mathematics, geography, and history, and one in philosophy, including geometry, zoology, botany, astronomy and the elements of chemistry and physics. He then enters upon the study of medicine proper, which on an average occupies six and three-quarter years. There are three examinations arranged as follows : 1st examination held two and a half years after matriculation, upon anatomy, dissection, use of the microscope, histology, chemistry (organic and inorganic), zoology, and botany. Second examination held three and a half years after the first upon physics, pharmacology, toxicology, medicine, therapeutics, general pathology, and pathological anatomy, surgery, ophthalmology, dermatology and syphilis. Third examination held about one year after the second, upon surgery and bandaging, topographical anatomy, obstetrics and gynæcology, diseases of children, forensic medicine, hygiene, and a practical examination in medicine and surgery. Thorough practical work in connection with the various hospital wards is also obligatory. Upon passing the examinations, which are conducted by the faculty, the candidate receives the right to practise. The doctorate is a scientific degree, giving the right to lecture at the university, and can be obtained only by passing a very severe examination.

DENMARK.—(Population nearly two millions.)—Has one medical school in connection with the University of Copenhagen. To matriculate, the candidate is required to present a certificate from a recognized literary institute, and must then attend a course of two years upon zoology, botany, physics and chemistry, including analysis. After passing the examination on these subjects, he is admitted to the course of medicine which extends over five years. The degree of M. D., with the right to practise after the final examination, is then conferred.

FRANCE.—(Population thirty-six millions.)—There are six academies conferring degrees and sixteen preparatory medical schools. To matriculate at an academy, the candidate must have the degree of B. A. and B. Sc. The course extends over four years of ten months in each year. In addition there are required practical laboratory work, and clinical work in connection with the hospitals, for two years. This may be done either the last two years of the course or the last year and the year following. There is a practical examination at the end of each of the three first years, and at the close the final examination for the Doctorate consists of five parts, including all the subjects of the course, together with the presentation of a thesis.

HOLLAND.—(Population one and a half millions.)—Has three universities supported entirely by the State. To matriculate at a university the applicant must present a certificate from a gymnasium or undergo an equivalent examination. The course extends over six years. The right to practise is not conveyed with this degree, but can be obtained only by passing an examination before a special board consisting of eight professors appointed annually by the government.

BELGIUM.—(Population over five millions.)—Has four universities two of which are supported by the State. To matriculate, the applicant must be a graduate of a literary college or pass a thorough preliminary examination. The course extends over five years and includes practical laboratory work, operative surgery, and attendance for three years upon clinics in medicine, surgery and obstetrics. The examination for the degree of Doctor of Medicine is held a few weeks after the close of the course, and includes the general subjects of the course, together with practical examinations in clinical medicine, surgery, obstetrics, and in operative surgery. This degree is conferred by the universities, but the diploma must be legalized by a Government Commission, whose duty it is to ascertain if all the conditions exacted by law have been complied with.

GREAT BRITAIN.—There are nineteen medical schools, ten, namely the universities, confer the Doctorate. The remainder bestow the various titles of licentiate, member and fellow. To matriculate, the applicant must either possess a degree in arts of some recognized collegiate institution, or must pass the prescribed preliminary examination. The course has been extended to five years. During the attendance at an hospital the student must serve as clinical dresser for three months, and as clinical clerk for three months. The examinations are two in number, partly written and partly oral. The examinations are quite rigid and are conducted by a board composed of professors and of others having no connection with the college. Upon passing the final examination the candidate receives the right to practise, with the title (differing in different schools) of licentiate, member, fellow, bachelor of medicine, bachelor of medicine and master of surgery, or doctor of medicine. In Edinburgh the degree of M.D. is only to be obtained after first having taken a degree both of bachelor of medicine and master of surgery, and after having devoted two years to actual practice. No special examination is required but the candidate must present a thesis. The higher titles such as F. R. C. S., F. R. C. P., and M. D., have no privileges attached to them outside of the college granting them, excepting that they are requisite for appointment on the staff of hospitals of any reputation. The medical profession in Great Britain enjoys that degree of estimation and credit which a science (conferring on mankind the greatest of all comforts) justly deserves. We find that the physicians and sur-

geons of Great Britain are almost invariably men of liberal education and cultivated minds and the art of medicine is carried to a singular height of excellence.

AUSTRALIA.—(Population about two millions.)—There are two universities, one at Melbourne and one at Sydney. Before matriculation the candidate must pass a rigorous examination in languages, mathematics, etc. The course of medical study extends over five years of nine months a year, and includes thorough practical work in laboratories and in hospital wards. The examinations are both written and oral. The final examination includes all the subjects of the fourth and fifth years with practical tests in dissection, operative surgery, clinical surgery, and medicine. Candidates are required to pass in all subjects. The degree of M. B. with license to practise is then given. To obtain the degree of M. D., which is a title merely conferring greater professional prestige, the applicant must have taken the degree of M.B. and subsequently have passed two years in hospital practice or five years in private practice, including in either case attendance for three months on the practice of an hospital for lunatics, and must also pass a special and elaborate examination both theoretical and practical in character.

ITALY.—(Population about twenty-nine millions.)—There are seventeen universities, four so-called free universities and one academy. To matriculate, the applicant must possess a certificate from a lyceum which is a high grade of literary institute. The course of medical study extends over six years of nine and one-half months in each year. There are three examinations held at intervals of two years by a commission composed of professors with one of two associates having no connection whatever with the schools and nominated by the government.

Excellence in one or more branches is not allowed to compensate for failure in others. Upon passing a second examination at the end of the fourth year the student receives the title of licentiate, which is merely an academic distinction. The final examination at the end of the sixth year includes not only all the subjects of the entire course of study, but also the diagnosis and treatment of medical, surgical and obstetric cases. Upon passing this examination and presenting a thesis, the candidate receives the degree of Doctor of Medicine and Surgery with the right to practise.

PORTUGAL.—(Population four millions.)—There are three medical schools all supported by the government. The course extends over five years of nine months each. To matriculate, the applicant must pass an examination in Latin, Portuguese, French, English, mathematics, elementary physics and chemistry, natural history, logic, history and geography.

BRAZIL.—(Population about twelve millions.)—There are two uni-

versities, requiring a rigid preliminary examination. The course extends over a period of six years. Upon passing the final examination, which embraces all the subjects of the course, and upon the presentation of a thesis, the candidate receives the degree of Doctor of Medicine, with the right to practise.

VENEZUELA.—(Population about two millions.)—There are two universities. To matriculate, the candidate must have the degree of bachelor of philosophy. The course extends over six years.

CHILI.—(Population two and a half millions.)—Has one medical school. The applicant must have a diploma of a collegiate institute to matriculate. The course extends over six years.

SPAIN.—(Population about seventeen millions.)—There are three medical schools. To matriculate, the candidate must have the degree of doctor of philosophy. The course of medical study is four years.

CUBA.—(Population was about one million.)—Has one university. To matriculate, the candidate requires to have a degree in arts. The course extends over six years.

UNITED STATES.—(Population about seventy millions.)—Has one hundred and six medical schools, with different regulations in each state. The leading States of Pennsylvania, New York, Massachusetts, and some others have State qualifications, so that a diploma serves only as a mark of literary distinction, and no longer gives the holder thereof the right to practise. Too many schools have lowered the standard in that country, but now the leading schools of the regular profession have a graded course of four years of nine months, and a preliminary examination.

CANADA.—Our beloved Canada, with a population of about five millions, has eleven medical schools. I need not refer to the collegiate course in this country. The colleges have been doing good work, and always followed in the wake of improvements. For years past the Canadian Medical Association has been endeavoring to educate the people as well as the profession on the necessity of having one qualification for all Canada. At the last meeting at Quebec, the basis of uniformity of curriculum was agreed upon, and the matter entrusted to Dr. Roddick to perfect and complete. We look to him as the Cæsar to lead us across the provincial Rubicon, and have established in Canada—what? the University of Canada, or the College of Physicians and Surgeons of of Canada, or the Dominion Medical Council? Dr. Roddick has issued an address, in which he very ably set forth his views as follows :—

"By an Act of the Dominion Parliament, a corporation may be created called, let us say, The Dominion Medical Council, which would be composed of medical practitioners from each Province and from the North-West Territories. The principal function of this Council would

be to register all persons who have complied with certain requirements and all applicants who shall have complied would receive what might be termed Dominion registration by the Council."

As we are aiming at making the profession in Canada one body, with one legal qualification to practise, thus placing it as high as any other country, it behoves us to commence with a high standard of preliminary education. Men entering the profession with a low standard will be equally low in the estimation of the profession and of the public. They are the class who sell patent nostrums and show cleverness, not commercial but professional. Some of these are so clever that they do not require to see their patients. We have at least one on our register who pretends by the signs of the zodiac and the date of birth to tell the dispositions of his patients and in this way impress his great skill on the easily impressed minds of his patients. In the face of the bold and unblushing quackery which we witness there is great need of higher medical education as being truly in the interest of the common people, as they are the ones who will suffer most by ignorant pretenders in medical science.

The profession of medicine in Canada will be what its followers aim to make it. The duty of maintaining its sanctions, and its higher standard must devolve upon those who practise it. The Government of the country has done nothing for the cure of the diseased, although thousands and millions of dollars are expended on other objects. True they establish quarantine hospitals. Good government has for its object the happiness of its subjects, and while we find laws regulating education and morals, etc., it is a sad reflection on the wisdom of our legislatures that no endowment or appropriation is made for training men for curing diseases. Let every obstacle arising from ignorance of the human organism and the diseases to which it is subject be removed by a thorough medical education, and let no one be permitted to treat the human frame who is not well grounded in everything pertaining to its anatomy, physiology, and the nature and properties of the medicines for the cure of its diseases, in addition to a full knowledge of all the sciences bearing upon this wonderful organism. There is no profession which should embrace a wider domain of science. When we consider the jealous eye with which life and property is regarded in all civilized countries, and witness the precautions that are taken on steamships and railways, we wonder that any obstacles should be placed in our way by the very people we are trying to serve when we appear before them advocating higher medical education. To attain this object to-day the Federal Government must be approached. Whether we form the Dominion Medical Council or the University of Canada, the Federal Parliament should appropriate an annual sum to support and carry it through. The united

voice of the profession behind Dr. Roddick in Parliament will do much in this matter and help the consummation of our desires. In order to be worthy of the name of Canada it should be a State University or a State Council created and supported by the Federal Parliament. A diploma from such a body whether for a degree carrying with it the right to practise, or for membership, would be respected the world over. You could gain admission with it to the British Register, and the existence of such would serve as an object lesson to our cousins across the border.

Brethren, we must be united as one man, and it is a duty incumbent upon us to lay a good—a lasting foundation, and thus leave a legacy to our successors, which shall be as permanent as the everlasting hills. Like globules of quicksilver dispersed over a polished surface, so long as we have been separate we have been easily agitated and unquiet, but just as those globules, so soon as they come within the sphere of each other's attraction, however varying their size, are fused together into a common mass, so let us fuse and consolidate ourselves. On equal terms each and every province must unite to form a central organization which shall have the status and distinction of a legislature. The first principle dictated by political wisdom is this, that those fundamental rules be observed which natural justice inculcates as the proper groundwork of all social institutions. If these are violated or neglected, oppression will take place, and our members will become more and more dissatisfied. We live under a protectorate where the humblest and poorest subject may carry his complaints to Parliament; if once the united sense of our profession be decidedly formed and permanently expressed concerning the injustice or impolicy of any particular law, our voice will reach every branch of the Legislature, and obtain that change in the system which moral duty and the general welfare demand. It is thus that improvements have been made in the constitutions of nations for centuries past, and it is thus, we trust, they will continue to be made for centuries to come.

The approaching meeting of the Canadian Medical Association at Toronto is destined to be an important one. Every Council in the Dominion should be represented, as it is likely this meeting will be the last one at which the question will have to be considered. The tendency of the age is to have a five years' course, as it is in England, and for the completion of an arts course to be insisted upon as the requirement for matriculation.

The basis of agreement last year at Quebec required the B.A. degree or an academic first class teacher's licence, the latter being the same as an honour Diploma of the third year in the Prince of Wales College. Our Prince Edward's Island Legislature, pretending to be wiser than we, rejected that provision and substituted an ordinary teacher's licence

of the first class, a qualification deficient in Latin, Greek, English, French, geometry, algebra, statics, dynamics and practical chemistry. Very likely the whole question will have to be considered again and the Legislature will be asked to repeal the words "First Class Licence" in the P. E. Island Medical Act. College degrees can only be accepted as an acknowledgment of purely scientific attainments; they secure no professional rights to-day in any of the Provinces of Canada, and at the close of a university education a State examination is required in each Province. The practitioners of medicine in Canada should be free and legalized to practise their profession from the surging billows of the Atlantic to the placid waves of the Pacific, and as God's chosen, permitted to go forth to do battle with disease and death. Let our aim be to consolidate the profession under one head by Dominion Registration. In conclusion, I desire to say that so long as the foundation of our profession is science, and its end the good of mankind, let us not rest content until we place it on the highest plane with that of the foremost country and make it creditable alike to the profession and the people of Canada. If I have failed to add due interest to the theme, I can but ask that you will spread the mantle of your charity over my imperfections. Gentlemen, I thank you for your kind and courteous attention.

COMPLICATIONS AND TREATMENT OF FRACTURE OF THE BASE OF THE SKULL.*

BY

J. M. ELDER, B.A., M.D., C.M.,

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I intend only to speak of the "Complications and Treatment of Fractures of the Base of the Skull"; and even to do that briefly will, I fear, tax your patience quite enough, leaving aside the much wider, and vastly more interesting, subject of Fractures of the Skull in general. My reason for taking up this subject was, primarily, that I had under my care this summer, in my wards in the Montreal General Hospital, a rather remarkable series of Fractures of the Base—remarkable in the fact that no fewer than five were there at the same time, affording opportunity of comparative study—and also remarkable for the further fact, that they all recovered. I do not say this boastfully, for several of them should have died to preserve my prognosis. This series of cases, naturally, made me study up the subject of Fracture of the Base as I had never done before; and the good results of the routine treatment followed made me wonder whether we—as general practitioners—have not been too prone in the past to assume that this was a form of injury for which any treatment was useless, and that all we should do was to make a correct diagnosis, give a grave prognosis, and then fold our hands and await the result. Such an attitude, I maintain, in these aseptic days is quite as unjustifiable in the case of a fracture of the base of the skull as it would be in a compound fracture of the tibia, for instance.

I crave your permission to now refer shortly to the following seven cases of the injury under discussion, as I have excluded the cases of fracture of the vertex, which did not show any symptoms of having extended to the base.

Case I. Mabel S., aged 8, was brought to the Hospital on May 30th, unconscious, the result of a fall of 15 feet, striking head first. There was a large hæmatoma over left parietal bone, and also a depressed fracture above left ear. Blood was oozing from mouth, nose and left ear; pupils widely dilated: convulsive movements of left side of body, but no movements of right side. Pulse weak and compressible, face pallid, and respirations shallow. She shortly began to vomit small quantities of bright red blood and rapidly grew weaker. Examination with

* Read before the Canadian Medical Association, Toronto, August 31, 1899.

a laryngeal mirror showed blood dropping down from the vault of the pharynx, which would collect in the stomach, and be rejected from time to time. So that, in addition to the fracture of the parietal bone (or as a continuation of it), there was fracture through the middle fossa of the skull, involving both the ear and the naso-pharynx. As the child was bleeding to death, possibly from rupture of the middle meningeal artery at, or near, the foramen spinosum, I felt that something had to be done at once. I remembered some years previously helping my senior colleague, Dr. Shepherd, operate upon a case of fracture of the skull, in which he could not reach the point of bleeding from the meningeal artery, which was evidently ruptured at the foramen spinosum, and he very cleverly saved his patient by ligating the common carotid artery of that side. You will find the case reported at length in the *Brit. Med. Journal*, Vol. I., p. 905, 1896. It occurred to me that I should follow the same rule here, especially as my little patient was in no condition to stand any prolonged operation on the skull or brain. I hurriedly ligated the left common carotid artery and put the patient to bed. She was absent from the ward, in the operating room, only half-an hour. She regained consciousness on the third day. She developed thrombosis on the twelfth day ; first of the superior longitudinal sinus, followed, on the sixteenth day, by thrombosis of the left cavernous sinus, and, a little later, of the right cavernous sinus. The study of the various forms of squint thus produced was most interesting. These were the only untoward incidents in her recovery, as the depressed fracture of the parietal bone righted itself, as such fractures so often do in children. She left the hospital, perfectly well, in 26 days, and continues well. I show you a photograph taken four days ago.

Case II. George W., aged 36, was brought to the hospital on May 31st, having fallen down a hoist shaft. He was bleeding from right ear, nose and mouth, conscious, but complaining of great pain in the head. He had also a compound fracture of the right lower jaw, and two punctured wounds of the neck, one going into the mouth. The wounds in the neck were dressed and sutured, and a splint applied to the broken jaw.

In addition to dressing the wounds of the neck and of the mouth caused by the broken jaw, I gave precise instructions regarding cleansing and keeping as aseptic as possible all the cavities affected by the fracture of the base, and I shall detail these instructions later on, as they pertain to all these cases.

The patient convalesced rapidly, never had any fever worth mentioning, and left the hospital in eighteen days with all his wounds healed but a splint still on the broken jaw, which had quite united a little later.

Case III. Mrs. W., aged 31, on June 15th jumped from a moving elec-

tric street car, and struck her head on the pavement. On admission, blood was oozing freely from her right ear. Four inches above the occipital protuberance and one inch to the left of the sagittal suture, was a lacerated and contused wound of the scalp leading down to a depressed fracture of the skull (posterior part of left parietal bone). Two weeks previously she had been confined, and was in active lactation. She was dull and stupid, difficult to arouse, with both pupils dilated and sluggish to light. She vomited frequently, a slight trace of blood being found in vomited matter. The wound in the scalp was sutured and dressed but no effort was made to raise the saucer-like depression of bone underneath. The ear and nose were treated in the usual way, and the usual routine of diet, rest and cold applications to the head followed. The vomiting was most troublesome, and the patient was very weak before it ceased, having ejected a good deal of blood, the source of which I could not make out but suspected it entered the pharynx through the right Eustachian tube. Her temperature never went above 101° F., and she made a good recovery, being conveyed home on the eleventh day. I have since seen her, and she complains of nothing as a result of her accident.

Case IV. P. M. K., aged 43, was brought to the hospital by the police patrol, which had found him unconscious in the street. He was semi-conscious, inclined to sleep at times, and wildly delirious at others. He was in the ward for a week before we could find out his name or get any information whatever about him. Blood was trickling from both ears, and from nose and mouth. He vomited blood at different times in small quantities. He had paralysis of all muscles supplied by the left facial nerve, which was evidently involved in the Fallopian aqueduct. Closer examination showed a slightly depressed fracture of the left parietal bone, about one inch above the left ear. The ears, mouth and nose were treated as usual and ice was applied to the head. He was very delirious for a week, and suffered from retention of urine for several days. His mental condition then quite suddenly improved, but he still had deafness and facial palsy when he left the hopsital in three weeks. Dr. Stirling, assistant occulist and aurist of the hospital, reported rupture of both drum heads, and did not hold out much hope of regaining hearing in the left ear, as he feared the portio mollis of the seventh pair of nerves had suffered with the portio dura and was involved in some scar connected with the fracture through the petrous portion of the temporal bone. His temperature while in hospital never rose about 100° F.

Case V. L. C., aged 37, was brought to hospital unconscious, smelling strongly of alcohol, with both pupils dilated, right more than left, and blood oozing from the right ear, nose and mouth. There was a scalp wound over the occiput, but no fracture of the skull underneath ; the left nostril torn open to the cheek ; flesh wounds of the right hand and

right shoulder. The wounds were sutured, after cleansing, and then the cranial orifices treated as usual. For three days he was delirious, and the temperature rose to 101° F. on the fourth day, but then rapidly got better, and he left the hospital very well in eleven days.

Case VI. A. G., aged 29, was brought to hospital on July 23rd, having fallen from a moving train and struck on the head. Blood was flowing from the nostrils and left ear, and a very large hæmatoma was present over the right temporal and malar regions involving the right orbit. He was unconscious and vomiting blood occasionally. Bell's palsy of the left side of face, but no other evidences of paralysis. Breathing stertorous. The usual orders as to treatment were as well carried out as a public hospital ward would allow, and the patient made a rapid recovery, unconscious delirium being followed by intelligence and quiet, and the facial palsy disappearing. In fifteen days he was discharged, apparently perfectly well, but with the usual caution not to work hard or excite himself for another month. The temperature in this case never rose above 99° F., though he was wildly delirious for two nights, and had to have several hypodermics of Battley's solution.

Case VII. O. S., aged 21, was brought to hospital on the night of August 1st, semi-conscious, the result of a fall on his head into a culvert, and bleeding freely from the nose and left ear. The usual treatment was followed. He complained of great pain in the head, worse at night, and in spite of sedatives was very noisy. He began to improve on the fourth day, and on the sixth day his brothers insisted on his removal from hospital, and I have since heard that he made a good recovery.

In all these cases the following general plan of treatment was followed out as systematically as circumstances would allow :—

1. Rest in bed.

2. Quiet was enjoined, and preferably the patient should be kept in a dark room. In the private cases, only, could this be done.

3. An ice bag was kept to the head.

4. The affected ears were thoroughly syringed out with carbolic acid solution 1-60, and packed with iodoform gauze, over which was bandaged a pad of sterilized cotton wool. This was repeated as often as the cotton wool showed any moisture. The nose was sprayed every four hours with the following, taken from the Montreal General Hospital Pharmacopœia: ℞ Sod. biborat., sod. bicarb. aa. grs. iii, acid carbolic gr. i, glycerine ℥i, aq. ad ℥i. Sig. Use in the atomizer. In addition, the nostrils were plugged with sterilized absorbent cotton changed frequently.

Where a mouth wash and gargle could be used and was indicated by involvement of the vault of the pharynx in the fracture, the following was used every two hours :—℞ Pot chlor. gr. xlv., acid hydrochlr. m. xx, glycerine ℥iv, aq destillat ad ℥x. Sig. As a gargle and mouth-wash.

5. The diet was strictly fluid, and in many cases of unconsciousness, food was given *per rectum* for several days—peptonized beef juice and egg, with a little brandy, yielding very good results, given in this way every four hours. It is, I think, highly important to carefully nourish these cases of fracture by suitable diet.

But the question may naturally arise, can one always be sure that one has a fracture of the base to deal with. I cannot answer this better than by quoting a recent utterance of a London surgeon on this subject: "The signs of a fractured base are exceedingly equivocal, *and it is often only by a consideration of the whole picture* that a certain diagnosis can be made." (Rose & Corless Surgery, 1898, p. 464).

If one has, following severe injury to the head, (1) evidences of severe brain injury; (2) bleeding from the cranial orifices which communicate with one or more fossæ of the skull; and (3) if the presence of cerebro-spinal fluid can be demonstrated in the discharge from any of these orifices, it seems to be fair to conclude that one is dealing with a fractured base. More especially is this true if one finds, at the same time, a fracture of the parietal or temporal bones, as so often happens. These fractures of the vault, I am convinced, often extend to the base, but being linear and not compound, they require no treatment and so escape notice.

What are the dangerous complications of fractures of the base of the skull?

1. *Hæmorrhage.*—The fracture may easily tear the dura mater and open some of the large venous sinuses, with fatal effect. This accounts for the great fatality following fractures of the posterior fossa of the skull (the drainage basin), as compared with either the middle or anterior fossa. Hæmorrhage, too, may also result (as in No. *I.* of the above series) from the fracture involving some of the arteries entering the base of the skull. The treatment must be directed to the control of this by any and every means possible.

2. *Sepsis.*—The fracture may become compound, opening into some of the cranial canals which communicate with the outer air; for example, the external auditory meatus, the Eustachian tube, the nose and naso-pharynx. Most fractures involving the middle and anterior fossæ of the skull communicate with some one or other of these cavities, and so are just as truly compound as the end of the tibia sticking through the skin, and here it is that modern antiseptic surgery should, and I claim does, give us good results when faithfully and intelligently applied. If the cracked skull is kept aseptic by proper treatment of the road leading to the site of fracture, it will heal as kindly and with as little constitutional disturbance as any other bone treated in the same way. It is not enough in these modern days, when one sees a patient who has received a severe

blow on the head, and has blood pouring from ears, nose and mouth with evidences of severe brain mischief, that the medical man should say: "Poor fellow! A fracture of the base of the skull, I fear. Keep him quiet, and leave him alone." These fractures must be treated; the hæmorrhage must be stopped, and to do this a careful search should always be made for its source.

I should certainly have lost the first of the above series of cases had I not taken this precaution, for there was very little external bleeding in her case, and yet she was really bleeding to death into the gullet. Having controlled the hæmorrhage as far as possible, our energies should next be turned to rendering the site of the fracture as aseptic as possible and adopting means to keep it so. Cleanse the cavity affected, and keep it clean by frequent washings and, where possible, by closing with some antiseptic absorbent dressings. Then the germs in the air will not be able to gain access to the fracture, and thence into the cerebro-spinal fluid or the venous sinus, causing subsequent septic meningitis which will nearly always be fatal.

Especially should one cleanse the external ear and keep it dressed antiseptically. This should be done on the affected side, even when no blood is issuing when you first see the case. The blood may be accumulating in the middle ear and escaping through the Eustachian tube and may later rupture the drum membrane and escape through the external meatus. Spray or douche the nose and naso-pharynx carefully, and then close the nostrils with cotton wool. Remember that the upper chambers of the nose communicating with the ethmoidal and frontal sinuses, are, fortunately, generally fairly sterile. And finally, use an antiseptic mouth-wash as frequently as possible. Control vomiting if at all possible. It is bad in many ways. It increases intra-cranial blood pressure, and thus encourages hæmorrhage; and it is very apt to drive septic material into the posterior nares and the Eustachian tubes. Give nothing but liquid diet; feed entirely by rectum for a few days, if necessary, and do not be afraid to give opium hypodermically or by rectum if the patient is violent and restless as they generally are in cases of brain injuries. I know there is a general prejudice against the use of opiates in these cases, but I have seen nothing but good follow the use of opiates where indicated, and think the patient quieted by opium has a much better chance of recovery than the patient who is wildly delirious; and, above all, keep the patient from all excitement, whether of sight, sounds, or mental agitation. Do not allow a lot of anxious friends to ask the patient all sorts of questions; exclude the pettifogging lawyer who is so anxious to take his case. There is nothing in what I have said that may not be carried out by any medical man living in this country, and cases in private practice should get on even better than those in a large emergency hospital ward with its noise, bustle and light.

PNEUMOTHORAX FROM GAS-PRODUCING BACTERIA.*

BY

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The presence of gas in the pleura without perforation is an old question with medical authorities. Lænnec believed that a secretion of gas could take place in a healthy pleura, and although this view was considered untenable for a long period, yet subsequent writers have regarded it as probable that an evolution of gas may occur in certain pathological conditions. Senator† states his views on this subject very clearly. He considers that the gases held in solution by fluids in the pleural cavity may escape in accordance with physical laws, provided that the pressure is diminished by retraction of the lung, but that such an amount can only be inconsiderable. Further, however, he considers that purulent fluids undergoing decomposition in the pleura can evolve gases. This argument is supported by the facts that subcutaneous emphysema may occur in a limb in the absence of any external wound, and also by the presence of gas occasionally noted in phlegmons.

It is, however, only within the last four years that any facts have been brought forward placing such views on a scientific basis. Welch's‡ discovery of the bacillus capsulatus aërogenes, followed by numerous pathological observations, remove all doubt as to the production of gas in living tissues by bacteria. In one of Welch's cases pneumo-peritonitis was present without perforation. A large number of his cases involved the abdominal organs (12 out of 23.)

The following case, although primarily one of subdiaphragmatic abscess rupturing into the pleura, is a good example of a pneumothorax due to gas production by the bacillus coli.

J. W., æt 46, a deaf-mute, was admitted December 26th, 1898, to the surgical side of the Montreal General Hospital for sudden severe pain in the abdomen, which his physician regarded as appendicitis. Dr. Hutchison, under whose care he was placed, found no evidence of abdominal disease but some days later discovered signs of fluid at the right base, and on aspirating some clear serum was removed. He was transferred to the medical ward on January 24th, and his condition was noted as follows :—

The patient is emaciated, anxious and prostrate; the skin dry and

* Read by title at the Canadian Medical Association, Toronto, September 1, 1899.

† Senator, Deut. Zeit. fur Med. II.

‡ Welch and Flexner, Journal of Exp. Med. 1.

hot; temperature, 99⁴/₅° F. a.m., 101¹/₅° F. p.m.; respiration labored 40; the breath foul, pulse 110 and readily compressible.

On physical examination there is distinct fulness over the right side of the thorax. The percussion note anteriorly is normal to the fifth rib, but from here to the costal border it is loud and hyper-resonant; the axilla is clear and posteriorly there is dulness at the base, as far as two fingers' breadth. The line of dulness is arched, reaching higher in the middle than at either side. Distant metallic respiration is heard over a small area the size of the palm of the hand in the upper axillary region, and very feeble breath sounds over the dull area posteriorly. Over the remainder of the lung the breath sounds are slightly feeble. A distinct metallic coin sound is elicited over the area of metallic breathing, and also through to the back, and there is distinct succussion. The breath sounds are slightly enfeebled over other portions of the lung.

On the 28th an aspirating needle was introduced in the 8th space posteriorly and twenty ounces of almost pure blood drawn off, which coagulated immediately in the bottle. The physical signs remained much as before but the metallic respiration disappeared. The further progress of the case was progressively downwards. The prostration increased; the temperature continued moderately elevated 100°, 101°, once 102°; the pulse became rapid and weak, and death took place from exhaustion on February 4th.

Repeated examinations of the rather scanty sputum always failed to show tubercle bacinlli.

Abstract of autopsy performed by Dr. Wyatt Johnston:—

Body considerably emaciated.

Dense adhesions between upper surface of the right lobe of the liver and the diaphragm. On pouring water over the pectoral muscles near the axillary line a few bubbles of gas escape on piercing the chest wall.

The right pleura shows some adhesions anteriorly and in the axilla, whilst below it is densely adherent and nearly a quarter of an inch thick. There is a thick-walled sac in the pleura posteriorly containing fetid pus. After removing the organs *en masse*, this cavity is found to communicate by an opening admitting a finger with a space between the right lobe of the liver and the diaphragm, and which contains pus similar to that in the pleura. There is no communication between either cavity and a bronchus, as tested by air and water pressure. There was an acute splenic tumor, but otherwise the abdomen was normal, the appendix and its neighborhood being free from disease. Bacteriological examination showed a mixed culture consisting principally of the bacillus coli with proteus.

The diagnosis during life was that of a localised pneumothorax at the base of the lung. The cause of this was, however, very obscure. There

was no evidence of tuberculosis of the lung, bacilli being constantly absent from the sputum. The possibility of a pyopneumothorax subphrenicus was considered, but against this was the absence of any downward displacement of the liver and, in addition, the heart was displaced to the right, a sign which is said to be commonly absent in collections below the diaphragm.

The conditions actually found were rather peculiar. An old thick firm abscess wall was seen, bounded below by the liver and above by the diaphragm. This cavity had no communication with any of the hollow abdominal viscera, nor was any source of such an abscess discovered in the abdomen. The lung, which had been pushed up, had formel a circular ring of adhesions on its pleural surface to the chest wall, dividing the pleural cavity into an upper and lower chamber. The latter communicated by a perforation in the diaphragm with the sub-diaphragmatic abscess which had hitherto been latent.

That the presence of gas was not due to any communication with any of the hollow abdominal viscera is clearly shown by the anatomical conditions, and the presence of a gas-producing bacillus, the bacillus coli, seems the only explanation of the presence of gas in the pleural sac.

So few cases have hitherto been reported of pneumothorax resulting from gas-producing organisms, that a synopsis of three previous cases may be given.

Levy,* writing in 1895, describes a case in a man aged 48, beginning with cough, pain in the left side and fever. Examination showed a left sided pleurisy. After four aspirations, three months after the onset of the illness, there was evidence of pneumo-thorax. Owing to dyspnœa the operation for empyema was performed, but the patient sank and died.

At the autopsy there was bilateral pleurisy and pericarditis with 1.5 litres of reddish yellow fluid in the right pleura, and in the upper third of the right lung a firm focus, the size of an egg, containing whitish caseous masses. A small yellow nodule was present on the small intestine, and a number on the under surface of the diaphragm. The pleuritic exudate removed during life showed the presence of an anaërobic bacillus, identical with that previously found by Frænkel in gas phlegmons and subcutaneous emphysema and subsequently identified as Welch's bacillus capsulatus aërogenes. The bacillus produced gas both in cultures and in living tissues.

This case seems, then, to have originated as a tubercular (?) pleurisy with effusion, subsequently infected with the bacillus aërogenes.

A. G. Nichols,* of Montreal, has recorded a case which is less open to

* Levy, Ueber den Pneumothorax ohne Perforation, Arch. für Exp. Pharmakologie, Bd. 35, 335.

* Nicholls, Notes on some cases of infection by the bacillus aërogenes capsulatus, British Medical Journal, 1897, II., p. 1845.

criticism than any that have been published yet, inasmuch as gas developed in the pleural and pericardial cavities.

The patient, a male, æt. 21, was admitted to the Royal Victoria Hospital for severe abdominal pain, beginning six days previously. There was evidence of peritonitis and a diagnosis of perforative appendicitis was made, which was confirmed by operation. A left-sided pleurisy was present on admission, and four days later evidence of pneumonia, and a few days later right pneumothorax and pneumopericardium were distinctly recognised. Septic symptoms were present but there was no sudden pain or collapse as is commonly found in perforative pneumothorax. No communication was present between the abdominal and thoracic cavities, and the case was thus clearly one of gas production in the pleura and pericardium. The autopsy fully confirmed the above conditions, and the bacillus capsulatus aërogenes was subsequently discovered in sections stained by Gram-Weigert's method. Anaërobic cultures were not made, as the case occurred previous to Welch's publication.

May and Gebhart.*

A male, æt. 43, stabbed himself twice in the cardiac region, with a dagger which had been previously used on another for a similar purpose. The wounds were apparently trifling, and healed quickly, but the temperature remained elevated and signs of fluid developed in the left pleura, and on aspirating a quantity of cloudy and markedly hæmorrhagic exudate was drawn off. A fortnight after the wound occurred evidence of pneumothorax was distinct. The gas when drawn off lit with a bluish flame.

Pericardial exudation developed, and in spite of incisions into both the pleura and pericardium, the patient died.

The autopsy confirmed the diagnosis, the anatomical diagnosis reading :—Subacute, left-sided, purulent pleurisy and pericarditis, following a stab in the left side.

The bacillus coli and staphylococcus pyogenes were found in the exudate. Careful analysis of the gas from the pleura showed that it consisted of CO_2, H, & N, but no O. The presence of a gas (H) not contained in atmospheric air proves clearly the production of gas in the pleural cavity.

In all of these four cases the proof that gas was evolved by bacteria is very conclusive, and it may therefore be accepted that such an event occasionally occurs. That such cases are rare is evident by the very scanty literature on the subject, but like other rare conditions, it may be more frequently found if looked for.

In two cases the bacillus aërogenes capsulatus was present, and in two

† May and Gebhart, Ueber Pneumothorax durch Gasbildeads Bakterion, Deut. Arch. für Klin. Med., Bd. 61, p. 323.

the bacillus coli. With our present scanty knowledge on the subject it is difficult to establish satisfactorily any diagnostic points. It will be noticed, however, that in three of the four cases there was abdominal disease, and in the remaining one the origin seems to have been a wound infection. In Nichols' case the evidence of abdominal disease (appendicitis) was distinct during life. In Levy's case there was tuberculosis of the peritoneum, discovered only at the autopsy, and in my own the subdiaphragmatic abscess was doubtless infected by the bacillus coli from the intestine. The frequency with which the abdominal organs are affected by the bacillus capsulatus aërogenes, and the constant presence of the gas-producing bacillus coli in the large intestine, are in accord with the clinical features of three of the recorded cases, and where there is evidence of abdominal disease with subsequent pneumothorax, the possibility of the production of gas by bacteria is worth bearing in mind. The onset of the condition seems commonly to be gradual, and not abrupt, as is usual in pneumothorax.

May lays much stress on a chemical analysis of the gases. He points out that a cavity may become infected by air-producing bacteria, and yet the pneumothorax be due to communication with the external air. The presence of a gas in the cavity, not found in atmospheric air, may therefore be regarded as a proof of its zymotic character.

In May's case hydrogen was present in sufficient quantity to burn, and this simple test, if constantly present, may serve to replace the more elaborate method of chemical analysis. It may be remarked that the bubbles of gas produced by the bacillus capsulatus aërogenes are also inflammable.

In conclusion, it may be now accepted :—(1) That pneumothorax may in exceptional cases result from gas-producing bacteria, and that the bacillus coli or bacillus capsulatus aërogenes may be the organism concerned. (2) That the presence of hydrogen or other gases not found in the atmosphere is conclusive proof of this condition being induced by gas-producing bacteria (May).

OBSERVATIONS ON ADENOIDS AND ENLARGED TONSILS AND THEIR REMOVAL.*

BY

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Few practitioners have a due conception of the prevalence of enlargements of Waldeyer's lymphatic ring,—the glandular tissues found in the upper pharynx, chiefly in the faucial and pharyngeal tonsils. It is only by reviewing the cases which present themselves in the wards of a children's hospital that a fair idea may be obtained, and I propose here to record the cases which have come before me in my service in the Hospital for Sick Children during the years 1895-99, and to make a few observations upon the diagnosis and treatment.

Total number of cases operated upon, 103; males, 47; females, 56.

Enlargement of faucial tonsils alone, 24; males, 6; females, 18.

Enlargement of the third tonsil alone, 31; males, 17; females, 14.

Enlargement of faucial and pharyngeal tonsils, 48; males, 24; females, 24.

Under 5 years of age, 24 per cent.

Between 5 and 9 years of age, 52 per cent.

Over 9 years of age, 24 per cent.

Number of cases re-examined, 19; percentage of persistence of, or return of, some portion of the growth, 20.

Number of cases operated on previously to entering the hospital, 5.

Number of deaths, 2.

Although the number of cases is in itself large, this only serves to emphasize the fact that the disease, in one or other of its forms, is very prevalent. Few of the patients were brought for treatment because an enlargement of the faucial tonsils had been observed, but rather because some function of the upper respiratory tract was being interfered with in a manner which aroused the parents' fears. Thus a large proportion were referred from the ear department where the patient had sought relief from deafness or otitis media. Perhaps a larger number, still, complained of noisy and distressed breathing, especially during sleep. Again, nasal symptoms, such as refusal of the child to blow its nose, or a constant catarrhal discharge with fissura nasi, or with eczema of the edges of the nostrils, were most prominent. In a large number of cases

* Read before the Canadian Medical Association, Toronto, September 1, 1899.

the chief complaint was that the child had a cold in its head, or rather had a persistently continuous cold in the head.

In the class of patients which attends the public clinic of a hospital it is frequently difficult to get a clear history, for the parents are non-observant or too careless to take notice of symptoms so evident to the trained eye or to the careful mother. To this reason I would attribute the small proportion of cases where heredity could be traced, and also the fact that in but few cases could any evidence be elicited pointing to an attack of one of the eruptive fevers as an exciting cause. In a sufficient number of cases, however, both heredity and an attack of measles or scarlet fever were distinctly enough connected with the onset of the symptoms to show that these causes play an important part in the etiology of these overgrowths.

As would be noticed from the above schedule, 47 per cent. of the cases presented enlargements of both the third and one or both of the faucial tonsils. In about 30 per cent. there were adenoids only, while in less than 24 per cent. the faucial tonsils were alone diseased. In other words, there was disease of the third tonsil present in 70 per cent. of the cases and of the faucial tonsils in 53 per cent.

Since adenoid enlargements are concealed from view, their presence must often escape detection in those cases where they are not accompanied by pharyngeal disease. In the diagnosis of the presence of adenoids I find an inspection of the facial expression most useful. As a rule the nose is flattened and broadened between the eyes. This is the case especially in the younger children, and is the more marked in proportion to the extent to which the mass fills the naso-pharyngeal space. If the nose is well formed and adenoids are present the obstruction is either only partial, or else the enlargement of the gland has occurred subsequently to the proper development of the nose. The interference with the shape of the nasal framework appears to be due to the prevention of natural development rather than to the effect of pressure or stenosis upon an organ already developed. The presence of the open mouth and the constant keeping of the lips ajar, especially when the child is in repose, is also a prominent feature in the facial expression in these cases, and if found in conjunction with the flattened bridge, is almost symptomatic of adenoids. Another point that I have often observed is in connection with the pharyngeal appearance, and it is this, that the palate appears partially paralysed, as if there were pressure upon its upper surface which clogged the muscles in their efforts to raise it, the result being that there is a large gap left between the free edge of the palate and the posterior pharyngeal wall.

It is best to diagnose the presence of adenoids by actual sight, however, and this frequently is difficult. Few children will permit the skilful use

of the rhinoscopic mirror, and it is a waste of time to persist in the attempt if the first trial is a failure. The most satisfactory way to see the adenoids is by the nose. The use of cocaine to dilate the passages and of a circular or oval speculum to dilate the nostril, will permit of an excellent view of the glistening swollen gland through the inferior meatus, and the trained eye may be assisted by the use of a long angular probe by which the position and consistence of the mass may be easily defined. A deflection of the septum or a spur may be in the way, but it is seldom that a good view may not be obtained through at least one nostril. As a rule, indeed, I have observed that in many cases when adenoids were present the nasal chambers were unusually patent so that cocaine was not required.

It is often laid down in text-books that the finger should be introduced into the nasopharynx for the purpose of diagnosing adenoids, but in my opinion there are several serious objections to this procedure. It is a disagreeable and somewhat dangerous performance for the physician, and for the parent it is a most distressing sight to witness the struggles of the child. So far as the patient is concerned, moreover, it destroys the confidence placed in the doctor so that thereafter it becomes impossible for him to obtain the child's consent to even the ordinary methods of examination and treatment. It should be the rule never to hurt the child if it is at all possible, and if the manipulations necessary to examination are made painless and in such a way as to win the child's confidence, much will be gained thereby. This method of examination should never be employed unless and until all others fail, and in my own experience this will be seldom. For the same reason I deprecate the use of the bi-valve speculum for the nose. It has long since been discarded from my ordinary examinations and treatment procedure, as its use is always attended by pain or at least discomfort.

The enlargement of the faucial tonsil is as a rule easily seen, but there are exceptions. The tongue should always be kept within the teeth and depressed in such a way as to prevent gagging, else a false idea of the size of the glands, or, rather, of the relative space they occupy, is apt to be obtained. It often happens, too, that the lower parts of the gland are alone enlarged and can only be brought into view when the tongue is deeply and yet gently depressed. The aim in examination must always be, not to recognise the enlargement simply, but to determine the amount of obstruction to the normal air current and the hindrance afforded by these enlargements in the proper performance of their functions by the parts adjacent.

Treatment.—When the enlargements are reasonably to blame for the symptoms complained of, it is generally a waste of time and a foolish delay to attempt their reduction by astringent sprays or alterative and

tonic constitutional treatment, in fact, by anything short of operative procedure. This is true whether one or all of the glands are swollen. The only exception that may be made is in the case of children closely approaching puberty, the age when nature may be expected to put forth a controlling influence upon the size of the glands. Even here very careful judgment must be exercised, and it is better to operate than to run the risk of ear complications which may permanently disable the patient. For, a comparatively slight enlargement may, by its tendency to promote catarrhal trouble, sow the seeds of chronic ear catarrh and promote early deafness.

In regard to the younger patients, the well-established facts regarding the influence of these enlargements upon the general health of the child, together with the imminent danger presented by large masses of diseased tissues situated directly in the path of the inspired air in its road to the lungs, loading it with impurities rather than cleansing it, offer every reason and justification for the immediate removal of the offending masses.

It may certainly be the case that the enlargements are not excessive, and while they give rise to annoying symptoms, still these are not fraught with immediate peril; but still, is it wise to submit the patient to treatment which promises so little, and which by the time it demands prolongs the danger period for the patient?

Every case requires careful consideration of all its details before operation is advised or postponed. We should not hesitate to remove the offending masses, because we but dimly understand the part they play in the child's development, nor, on the other hand, should we condemn a faucial tonsil to the knife if it but so much as put forth its head beyond the faucial pillars.

When operation is deemed needful, and in every case where adenoids are present, it should certainly be performed under an anæsthetic; and the anæsthesia should be *profound*. Thorough work cannot be done by a hasty scraping of the nasopharynx in a struggling patient, and it is in these cases where no anæsthesia is used that recurrence of the growth is to be expected. Again, it adds unnecessarily to the difficulties of the operation to be compelled to administer more of the anæsthetic after the first incision has been made. The anæsthetic employed in the above cases has been chloroform in most instances, but in a number of the simple cases I have used a combination of nitrous oxide and oxygen gases. It is difficult to complete a thorough operation, unless there be only a single gland enlarged, in the short period of about 45 seconds that the gas allows to the operator, and therefore its range of usefulness is limited.

With regard to the position of the patient, the prone position should

be maintained until the tonsils have been removed; then the head should be drawn down over the edge of the table, the left forefinger inserted into the nasopharynx and used as a guide to the instrument held in the right hand. Ths position will lessen the possibility of blood entering the larynx. Of late, a number of cases of severe hæmorrhages following operation have been reported, and as we have no means of knowing when an artery may lie in an unusual situation, this accident is one that is liable to occur to any operator. The percentage of cases of severe bleeding is very low and I have yet to meet with a case that gave me any alarm. The loss of blood at the time of the operation is always very considerable, and this cannot be avoided. I have used solutions of suprarenal capsule extract for the purpose of lessening the hæmorrhage, but have failed to observe any good effects. An iced spray of Dobell's solution for twenty-four hours before and after operation will be useful in keeping down the bleeding.

Two of my operations resulted fatally but in neither instance was death due to the operation. One child was attacked by scarlet fever and the other died from the anæsthetic.

There are difficulties in arriving at a proper estimate of the percentage of recurrences. I have made examinations of some 19 patients from 11 to 4 years after operation, and in less than 20 per cent. was there any trace left of the disease. In none of the cases could there be said to be any re-enlargement of the glands, and I am inclined to believe that the traces which remained were due to an insufficient removal at the time of operation. It is generally more difficult to remove a left tonsil thoroughly than a right, while if the patient take the anæsthetic badly or the hæmorrhage is troublesome, a small portion of the adenoid overgrowth may escape detention. In some cases any remnant will be absorbed in the healing process, but in others there are constitutional conditions present which prevent this absorption process.

Usually, operative procedures are attended by the most wholesome results, and I have yet to see the child when any untoward effect took place.

In this paper I have not attempted to do more than is embraced by the title, and have made no pretense to cover the subject.

AN EXPERIENCE IN FORMALDEHYDE DISINFECTION.*

BY

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Director General of Public Health.

On the evening of Tuesday, the 6th June last, the S.S. "Lake Huron" arrived at the Quarantine Station of Grosse Isle, in the River St. Lawrence, below Quebec. She was twenty-five days out from Batoum on the Black Sea, with two thousand three hundred Doukhobor immigrants on board, and a crew of sixty-nine, including the pilot.

Smallpox being found on board, the vessel was ordered into quarantine. Seventeen cases of this disease, eleven of the Doukhobors and six of the crew, were removed to the hospital between the time of the arrival of the vessel and the completion of the landing of the persons and effects she had brought. All the 2,300 passengers were landed by the Friday evening, the 9th. The heavy luggage from the hold was landed on the Saturday and Sunday. The vessel was disinfected on the Monday and Tuesday, the 12th and 13th, and she was offered to her agents for release, with a new crew, on Wednesday, the 14th, at 4 a.m.

The usual methods employed in the Canadian Quarantine Service for the disinfection of vessels are as follows :—

Steam for all hospital cabins and other small apartments where it can be used ; formaldehyde for saloons, staterooms and small apartments where the permanent fittings would be destroyed by steam ; sulphur dioxide gas, under pressure from the blast furnace, for holds and steerages ; and mercuric chloride solution for all free surfaces, alleyways, latrines, bilges, etc.

On this occasion the sulphur dioxide blast appliance of the station was not available. Steam is not suitable for large apartments as the temperature cannot be kept up, and the steam is therefore precipitated as simple hot water. Accordingly, formaldehyde was used for the holds and steerages on this occasion.

The cubic space involved was as follows :—

	Cubic feet.
Main deck, three compartments open longitudinally	34,453
	13,441
	26,977
	74,871
Forehold, three compartments perpendicularly open by hatchways	17,534
	13,461
	18,117
	49,112

* Read before the Canadian Medical Association, Toronto, August 30, 1899.

	Cubic feet.
No. 2 hold, three compartments perpendicularly open by hatchways	17,680
	15,727
	22,975
	56,382
No. 3. hold, three compartments perpendicularly open by hatchways	4,657
	4,264
	5,920
	14,841
No. 4 hold, two compartments perpendicularly open by hatchways	13,446
	19,530
	32,976
After hold, two compartments perpendicularly open by hatchways	13,734
	13,520
	26,254

Total measurement, 254,436 cubic feet.

The formaldehyde was liberated from formalin, the forty per cent. aqueous solution of the gas. Twelve ounces of the solution were allowed for each 1,000 cubic feet of space. The time of exposure was eight hours. Two instruments were employed in this part of the work.

Although, as stated, the disinfection of the vessel was completed on the morning of Wednesday, the 14th June, owing to heavy weather it was not until Friday, the 16th, that the new crew could be sent down to receive and take away the vessel. During this interval an "anchor watch" was kept on the vessel's deck, and in her engine room, the officers and crew continuing to live on shore. When the small steamboat bringing the new crew came in sight, the last of the old crew were brought ashore, and the "Lake Huron" was left riding at anchor in the offing without anyone on board. The new crew that then boarded and took her away were from a sister ship, the "Lake Superior," then at Quebec. After taking the "Lake Huron" up to that port they had to leave her within a day or two to rejoin their own vessel. They were at once replaced on the "Lake Huron" by another, a third crew.

Thus two new sets of men boarded, occupied, lived and slept in this vessel within from two to four days following her disinfection, after there had just been removed from her seventeen cases of smallpox, scattered among nearly 2,400 people packed on board, and having occurred both in the steerages and in the fo'castles.

This constituted, of course, a much more severe test of this method of disinfection than the re-embarking of the original crew would have done.

I am happy to be able to state that there has not been reported any subsequent case of the disease in connection with any of these persons, or traceable in any way to this vessel, during the two months and a half that have now elapsed since these events occurred.

I am aware that this disinfectant, formaldehyde, has been employed

for the purification of vessels ; notably some of the United States transports after recent service at Cuba. But I have not seen any instance recorded of its use on so large a scale in the face of actual infection with smallpox. Nor do I know of its results being put to so crucial a test as upon this occasion.

In my opinion the use of sulphur dioxide driven in from the sulphur furnace under the strong pressure of the exhaust fan must remain our chief reliance for large apartments, such as holds and steerages. But this instance of the successful employment of formaldehyde as an alternative is not without its value. I do not forget how careful we have to be not to hastily draw conclusions from any one case or occurrence, still it is only by the noting of single cases that cumulative evidence can be obtained, and I have, therefore, thought this test of formaldehyde disinfection on a somewhat extensive scale to be of sufficient interest for me to bring it before this Association.

A CASE OF DIFFUSE HYPERTROPHY OF THE BREASTS.*

BY

JAMES BELL, M.D.,

Professor of Clinical Surgery, McGill University; Surgeon to the Royal Victoria Hospital, Montreal.

This patient, a healthy, well-developed and well-nourished French-Canadian girl, seventeen years of age, from a country district, was admitted to the Royal Victoria Hospital, on the 3rd of August, 1899, with enormous hypertrophy of both breasts, as shown in the accompanying photographs. She was of a healthy family, with no known pathological heredity. She began to menstruate at the age of fifteen, but that function had always been somewhat irregular both in the duration of the period and the length of the interval, though otherwise normal. Her colour was good, and nothing abnormal was found about any of the organs with the exception of a slight trace of albumin in the urine.

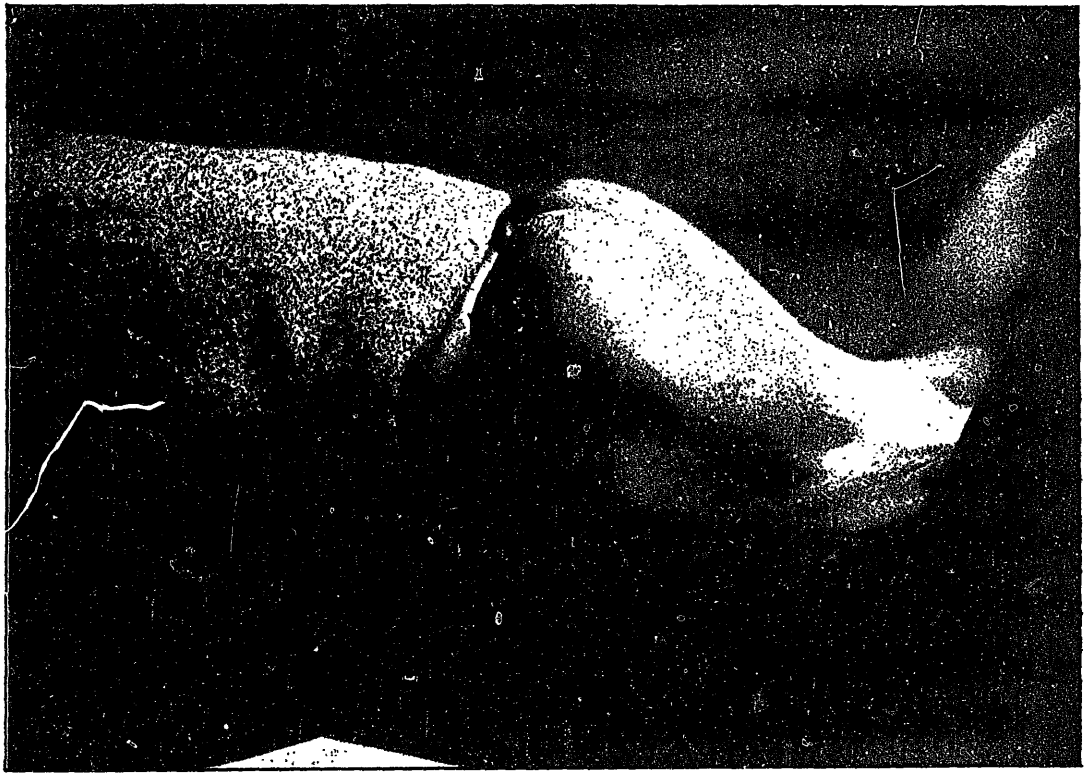
The breasts were very large, painless, and moderately pendulous. On palpation, the sensation communicated to the hand was that of a partially filled sac of fluid containing freely moveable, hard, fleshy masses. Just below the nipple of the left breast, was a patch of ulceration as large as a half-dollar coin, the result of pressure gangrene. Large veins ramified over the surfaces of both breasts.

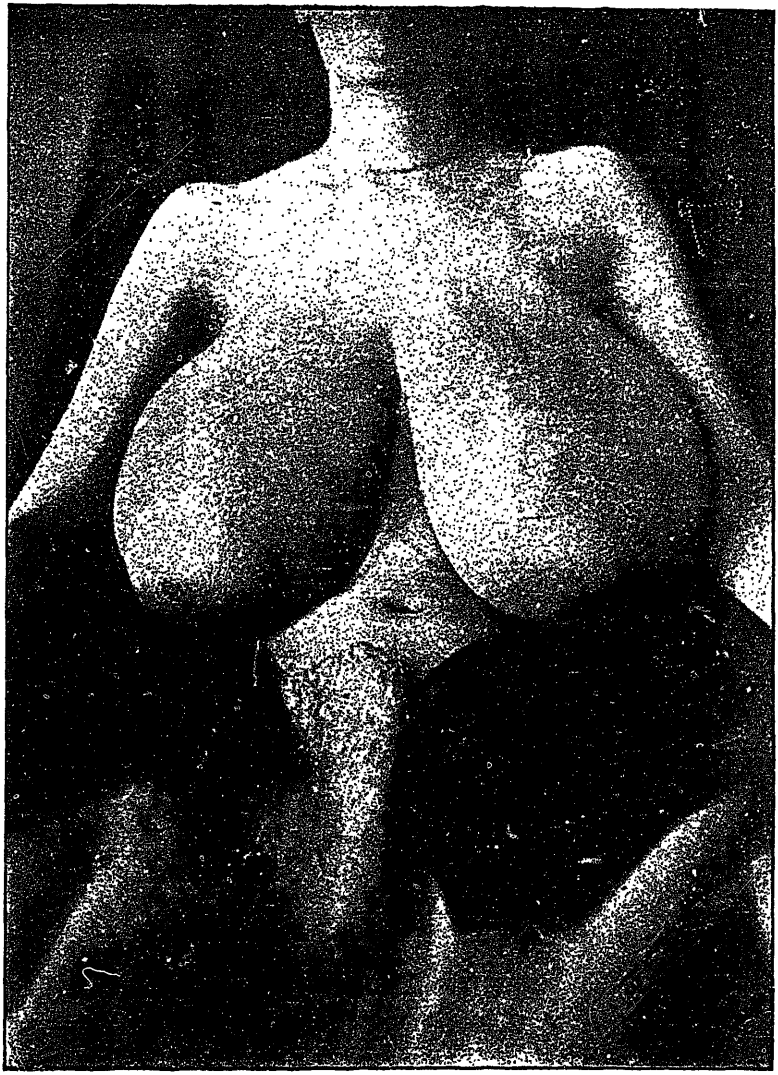
She had first noticed in November, 1898, that the breasts were large, but it was only in March, 1899, that the enlargement became very marked. From that time they had increased in size very rapidly, but without pain. The ulceration had begun two weeks before admission.

The left breast was removed on August 7th, and weighed 6½ pounds. The right was removed on August 26th, and weighed 5 pounds and 13 ounces. The skin over the surface of each breast was greatly thinned and the subcutaneous cellular tissue much condensed, so that it was dissected off with difficulty. The underlying connective tissue was also much condensed. On section, there appeared to be a general hypertrophy of both glandular and fibrous tissues, and all the tissues were very firm. Professor Adami kindly examined sections from the left breast, and the following are extracts from his report :—

"It is not pure hypertrophy of the gland tissue, though that must be present, but is essentially, I take it, an orderly hyperplasia of the fibrous tissue,—granuloma of the same. The abundant connective tissue between the alveoli is too perfectly formed to allow the condition to be spoken of

* Read by title at the Meeting of the Canadian Medical Association, Toronto September 1st, 1899.





as fibromatous. If I may use the term, there is here a 'cheloid' overgrowth of the connective tissue."

This condition, though somewhat rare, is well known, and is described in most surgical works and monographs upon the diseases of the female breast. I quote the following sentence from Dennis (System of Surgery, Vol. IV., page 895) :—"The disease has been known according to Selbet since the time of Galen, and has been described by Velpeau, Billroth, and others." It generally occurs in young girls, and is symmetrical, and though no definite cause can be assigned for it, it is thought to be in some way associated with the function of the genital organs, and is therefore often attributed to masturbation, etc. As for treatment, nothing can be done to arrest the hypertrophy once it has begun and removal of the breasts soon becomes necessary on account of their great size.

A CASE OF SUBCUTANEOUS EMPHYSEMA.*

BY

FREDERICK FENTON, M.D., of Toronto.

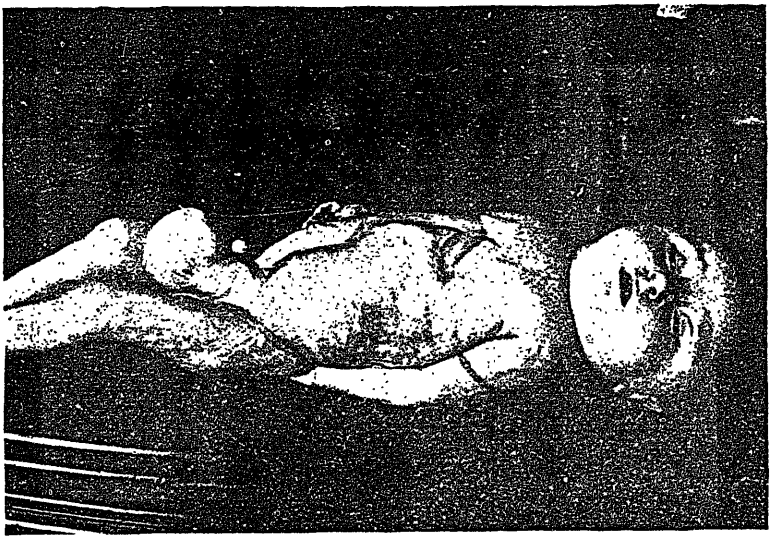
The notes I wish to present are those of a case of subcutaneous emphysema occurring in an infant, the subject of tuberculosis.

The child was six and a half months old and was described as having been well until it was five months old, except for an attack of bronchitis at about the middle of its third month. No loss of weight was noticed until the fifth month, during which it had what was diagnosed bronchitis.

On December 23rd last, five days before death, the baby was very restless but had no unusual amount of coughing; in fact, the cough had never been a marked feature of the disease at any time. The same evening the mother noticed a puffy swelling just above the sternum to the left of the middle line, which extended towards the left side of the neck. The swelling advanced more or less rapidly until, when I saw the child on the 25th, it had involved the greater part of the neck, chest, and shoulders. From this until the time of death its progress was continuous, passing upwards over the head and downwards over the chest and abdomen. It was limited in the neck, behind, by the anterior border of the trapezius muscle and above, by the attachment of the cervical fascia to the inferior maxilla. Over the parotid gland it continued upwards, spreading forwards over the cheeks, which became very hard and prominent, and passing over the head so as to bulge out the vertex. This is well shown in photograph No. 2. Passing down the chest wall in front, it became limited at the lower border of the pectorales majores except over the outer half of the left, where it escaped and continued its onward march to the abdominal wall. Here it passed forwards as far as the linea semilunaris on the left side, backwards to the spine, downwards to the crest of the ilium and Poupart's ligament. Over the inner half of the ligament it escaped, gaining access to the scrotal tissue, which it distended greatly. The gas also spread down the arms about half way to the elbows.

In the photographs, which were taken about six hours after death, the limits of the emphysema are roughly outlined with ink. In photograph No. 2, tapes were tied about the body and show the amount of swelling present. By comparing the two sides of the abdominal wall a very fair idea is obtained of the extent of the change.

* Read before the Canadian Medical Association, Toronto, August 31, 1899.



No. 1.

No. 2.—Swelling on top of head well shown. also in upper part of arms and shoulders. By comparing right and left sides of abdomen the depth to which cord sinks indicates the extent of emphysema.

A post-mortem examination made about six hours after death revealed the following condition:—

The body was not greatly emaciated. Rigor mortis was slight. The emphysema was as stated above, except for some slight decrease in its volume. The subcutaneous tissues were dry and bloodless. There was a pneumothorax on the left side, the lung being partially collapsed and at the back part of the cavity. There was no fluid or adhesions. The bronchial lymph nodes were enlarged.

The left lung showed many emphysematous blebs of varying size, and, on section, large numbers of yellow tubercles. The point of entrance of air to the pleural sac was not found.

The liver was large and showed marked fatty change, the spleen large and had a number of greyish tubercles scattered over its surface. No gross lesions were found in the other organs. The brain and cord were not examined. There was no gas formation in any of the internal organs except as stated.

The emphysematous blebs could be traced to the root of the lung and from thence upwards along the trachea into the neck. In the right thorax there were pleural adhesions everywhere. They were especially dense over the upper and middle lobes, where they required section in order to free the lung. The greater part of the upper and middle lobes, corresponding to the greatly thickened pleura, presented a large sacculated cavity containing pus and disintegrated lung tissue. The balance of the lung was literally stuffed with yellow tubercles, being in a condition of tuberculous pneumonia.

Microscopical examination of the tissues demonstrated tubercle bacilli in the contents of the cavity in the right, and throughout the tissue of both lungs, in great numbers, and a few in the liver and spleen. None were found in the kidneys. In the spleen and liver they were confined to the giant cells, but in the lungs were found throughout the tissue and in the vesicles apart from giant cells.

Since the death of the child, enquiries have elicited the fact that the father, a man of about 50, has suffered from a winter cough for years. He is emaciated and has a very husky voice, and examination of his sputum revealed the presence of tubercle bacilli. His may, of course, be a case of chronic bronchitis with a tuberculous infection engrafted upon it, but as he was then in his usual state of health, or rather, I should say, ill-health, I believe that his tubucular disease has been the cause and not the effect of the child's illness. No direct evidence of tuberculosis was obtainable in the mother, but she is poorly nourished and looks a fit subject for the disease.

This is but an instance that illustrates the necessity of employing the more exact methods in the routine examination of lung cases. The

production of emphysema in such cases is usually ascribed to prolonged and violent coughing, which, as I have said, was never a feature of this case and can have had but little to do with the emphysematous condition. The large area of the right lung involved by the primary disease had doubtless given rise to a compensatory vesicular emphysema of the left and of the balance of the right lung. Add to this the complete involvement of the right lung with the consequent abolition of its functions by the acute secondary infection with its accompanying pneumonic process, and a similar though less extensive involvement of the left lung, and there is, I believe, the combination which has produced extreme dilatation of the remaining vesicles of the left lung, one of which, either spontaneously or from increased pressure in the respiratory tract due possibly to cough however slight, has given way and led to the results described.

The point as to the presence of the gas bacillus was, I regret to say, not determined. The clinical history of the case, the distribution of the emphysema, the absence of gas from the substance of the internal organs, the long duration of the condition before death, and the slight decrease post-mortem, may be taken as proof, if not of the absence of that bacillus, at least that the condition was not due to its presence, and that therefore, pathogenically, it was absent.

The question of ante-natal infection arises. The extensive distribution in the lung, the primary focus, in so young a child points very strongly to such an origin, but as there could be no means of determining such in this case I will not enter into that aspect of it. The presence of tubercle bacilli in the father's sputum taken in conjunction with the miserable sanitary arrangements of the house, is quite ample to account for the child's infection, but it is hard to imagine such extensive destruction of lung tissue by the primary tubercular process which, if we exclude ante-natal infection, could not have existed for more than six months.

RECURRENT PARALYSIS OF THE OCULO-MOTOR NERVE.*

BY

J. W. STIRLING, M.B., Edin.,

Assistant Ophthalmologist and Aurist to the Montreal General Hospital; Ophthalmologist to the Montreal Maternity.

The comparative rarity of recurrent third nerve paralysis induces me to report the following typical case, although it lacks the final demonstration of the pathological lesion. Until ten years ago but very few cases had been described and even yet from all sources I can collect only about sixty cases, of which but four were examined post mortem.

The characteristic symptoms of the disease are the sudden onset of unilateral frontal headaches, which may last from days to weeks, and are associated with vomiting, malaise, and sometimes fever. Simultaneously with or shortly after this, paralysis of the third nerve on the same side appears. This paralysis may be complete or partial, and lasts for a varying time after all the other symptoms have disappeared. There is sometimes paræsthesia in the area of the superior branches of the fifth nerve on the affected side, and the fields of vision show a varying contraction. These paralytic symptoms may entirely disappear to suddenly recur with the same severe headache, etc., at a period varying from weeks to months, or even years. In other cases the disease takes on an exacerbating form, there being but incomplete recovery from the paralysis during the intervals between the attacks. In this latter form the tendency is for the disease to become gradually worse until finally complete permanent oculo-motor paralysis developes. The former type is known as the periodic, there being complete absence of any paralysis during the interval, but the recorded cases of this type are very few, and it would seem that they almost invariably take on the exacerbating characteristic. The disease generally begins in very early life, even in infancy. At the onset, the patient may only complain of severe bilious or migraine-like headaches, and years may elapse before the paralytic symptoms appear.

As to the pathological conditions, it is held by many that the simple periodic type is not associated with any marked organic lesion, in fact, that it is a functional nerve explosion dependant on some variety of auto-intoxication. Priestly Smith considers it due to the accumulation of uric acid, and mentions a recovery due to treatment on these principles. Other authorities claim errors of refraction, worms, and nasal stenosis, as main causes, and quote recoveries resulting from treatment

* Read by title before the Canadian Medical Association, Toronto, August 30, 1899.

directed against these causes ; but the possibility of very long intervals between the attacks leads one to accept such statements with caution. On the other hand, the true exacerbating type is held to be invariably due to some organic lesion.

Wadsworth, of Boston, reports a case associated with chronic suppuration of the middle ear on the same side, in which an onset of the eye symptoms occurred with diminution of the aural discharge, and a disappearance of them with an increase of the discharge. Wadsworth considered a basal meningitis as the cause in his case.

The autopsies so far have been four in number, and in all of these there was marked disease of the nerve trunk. The following are the reports :—

(1) Plastic exudation around the nerve trunk.

(2) Gray granulations containing tubercle bacilli in the nerve trunk.

(3) Fibrochondroma of the nerve.

(4) Small fibroma of the dura mater involving completely the nerve ; the nerve fibres were degenerated but the nucleus was intact.

The case which came under my notice is as follows :—

Nellie R., aged 14, was first seen by me on May 12th of this year. The child complained of seeing double and of drooping of her left eyelid, which had persisted for the past two or three days. Four days ago she had what she called a severe bilious headache, limited to the left side of her forehead, and which lasted for three days. This was accompanied by vomiting, and on the second morning after the onset she saw double and could not raise her left upper eyelid. She had a similar attack three months ago in the same eye, the symptoms disappearing in the course of a week, and again previous to this, two years ago, after an attack of diphtheria, there was drooping of the left upper eyelid and double vision. There is a history of frequent sick headaches since early childhood occurring nearly every month, but the double vision has only been noticed during the past two years. She has had frequent attacks of sick headache and vomiting for two years, all of which have been accompanied by double vision, but without ptosis except on the three occasions mentioned. The patient tells me that near vision with the left eye has been defective for years, almost as far back as she can remember. The child is well nourished and of the fair type, rather undeveloped for her years. Mentally, she is bright and intelligent. There is no history of any serious illness. Her mother has been in an asylum four or five years, but there is no other family history of any importance, and there seems to be no family tendency to tuberculous infection. The girl has not yet reached puberty. Her condition on May 12th was as follows :—

Paralysis of the left third nerve in all its branches, excepting that to

the sphincter pupillæ, for although widely dilated, the pupil reacted sluggishly to light and on convergence, but the accommodation was absolutely paralyzed. The eye-ball was divergent in position. There was no paræsthesia in the area of the fifth nerve. Vision, right eye, $^{5}|_{5}$; pupil active and accommodation good; a low degree of hypermetropia. Vision, left eye, $^{5}|_{0}$; pupils sluggish, widely dilated, accommodation nil. With a spherical plus 5D she can read J.i. at eight inches. The light minimum as tested by Wallace's photometer is 4°. The fundi are normal. The field of vision shows a general peripheric contraction of 10 to 15 degrees when using a test object 5mm. square.

The knee reflexes, etc., are normal, as are the general body functions.

On June 21st, only a slight paresis of the left internal rectus remained. The ptosis had disappeared; there was no divergence of the eye-ball; the pupil still reacted sluggishly to light, and the accommodation was still absent.

On July 12th, only the pupillary and accommodative phenomena persisted; the light perception was increased to 5°. On August 21st, I found that since last seen she had had a slight attack of headache, etc., with double vision, but no ptosis; the symptoms disappeared in a few days, but the accommodative and pupillary symptoms remained unchanged.

My patient forms a typical example of this rather rare malady. There was marked hereditary tendency to nervous instability on the maternal side. The attack of diphtheria would seem to have been the more immediate exciter of the oculo-motor paralysis, but we have the history of years of indistinct vision for near objects pointing to the early existence of cycloplegia. As to the pathological lesion one is in the dark, but, judging from the experience of others and the marked exacerbating type of the disease, there can be no doubt as to a marked organic lesion being present, most likely in the nerve trunk. It seems curious that such a vast majority of the cases of recurring paralysis of the ocular muscles should belong to the oculo-motor group, the sixth and fourth nerves supplying but very few cases. As Gowers pointed out, the sixth nerve, on account of its long course round the pons, is exposed more than the other basal nerves to the effects of any pressure, and its paralysis is a most common distant symptom of intracranial trouble. Yet in these recurrent types of paralysis it almost invariably escapes.

A CASE OF PENETRATING GUNSHOT WOUND OF THE ABDOMEN WITH LESIONS OF INTESTINES SUCCESSFULLY TREATED BY IMMEDIATE OPERATION.*

BY

NORMAN E. McKAY, M.D., of Halifax.

Perforated gun shot wounds of the abdominal wall with intestinal lesions are of interest because of their high mortality.

Paul Ziegler, writing on the treatment of these wounds, says that in the University of Munich they have treated seven gunshot wounds by immediate laparatomy with a mortality of 58 per cent. He advises immediate operation as the best and wisest course to pursue, as it is impossible to tell from the symptoms, in the majority of cases, whether or not perforation has taken place.

I do not know of any case of penetrating gunshot wound of the abdomen with perforation of the intestines treated by immediate operation having been reported in Canada.

The following case I had in my practice last year :—

R.H., aged 34, teamster, married, was admitted to the Victoria General Hospital on the night of August 8th, 1898, with a bullet wound of the abdomen and also one of the left side of the chest immediately below the axilla. The latter wound was not much more than skin deep. When the man was brought into the hospital, he was in a semi-stupid condition from liquor and morphine that had been injected to relieve pain, so that it was difficult to get from him any reliable data regarding the shooting accident.

He had been a hard drinker all his life time, and was drinking heavily during the five weeks immediately preceding the accident. The evening of the shooting, he and a chum forced an entrance into a small beer shop by the road-side, four miles out of the city. The patient is a very muscular and powerful man. When he entered the house he was met by the proprietor with a loaded revolver, who fired at him, the bullet entering the left side of the chest a little below the axilla. This staggered him somewhat, but he soon recovered himself and rushed at his assailant, who again fired at him. This shot took effect. The bullet entered the abdomen about three inches to the right of the umbilicus and on a level with it. The man fired at him the third time, but missed. The patient fell on the floor unconscious, in which condition he remained for some time, but he had recovered by the time the doctor arrived with

* Read by title at the Annual Meeting of the Canadian Medical Association, Toronto, August 31st, 1899.

the ambulance. He was suffering great pain, so much so that the doctor who saw him first had to give him ¼ gr. morphine hypodermically. The shooting took place about eleven in the evening, and he got to the hospital at 12.30, just an hour and a half after the accident. After some little time I managed to get out of him that his assailant was standing at a distance of about three feet right in front of him when the second shot was fired. Judging, therefore, from the relative position of the two and the distance they were apart when the shot was fired, I was satisfied that the bullet had perforated the intestines. Very little hæmorrhage went on internally, for the man had no appearance of shock when I first saw him or subsequently. The pistol used was a 32 calibre one.

Prognosis was of course unfavourable. I decided to operate at once, or not at all. I explained to the man as best I could to a person in his condition the serious nature of the accident, and strongly impressed upon him that the only thing to be done to save his life was an immediate operation, to which he consented.

The patient was prepared at once for operation in the usual way. (Parts washed and scrubbed well with soap and water, then with ether, and, lastly, with bichloride, 1 in 500). Ether was the anæsthetic used. The abdominal cavity was opened by a vertical incision about five inches long, three-quarters of an inch to the inside of the bullet wound, so that the middle of the incision was opposite the wound. Upon opening the peritoneum, I came right down on the upper part of the ascending colon which was distended with gas. It looked all right. There was no blood in the peritoneal cavity, neither was there any evidence of extravasated fæces.

I now probed the wound in the abdominal wall to determine, if possible, the course the bullet took after it had entered the peritoneal cavity, and as far as I could make out it was antero-posteriorly. There was no wound of exit. I then searched for intestinal perforation, and found a wound in the colon near the hepatic flexure. I detected the perforation by the noise of gas escaping through it when I pressed the wall of the colon together, and in like manner the other three wounds were located. There were two wounds in the colon, one of inlet and one of exit, and two wounds in a loop of the intestines which happened to be lodged behind the colon in the line of the bullet's course. The wounds were small and difficult to locate ; there was no loss of substance ; the intestinal walls were simply lacerated. The operation was performed at night with artificial light. The distended state of the intestines with gas was very favourable for locating the wounds, which I closed with a Lembert suture.

On satisfying myself that there was no other wound of the intestines, I lifted the wounded portion of the bowel from the abdominal cavity

and douched them thoroughly with bi-chloride lotion, 1 in 8000, and then returned them and flushed the peritoneal cavity with normal saline solution, and after drying the parts thoroughly, the abdominal wound was closed with three rows of sutures, the peritoneum with continuous cat-gut, the muscles with interrupted sutures of cat-gut, and the integument with interrupted sutures of silkworm gut. A glass drainage tube was inserted in the wound for twenty-four hours.

He stood the operation well. For the first twelve hours after the operation the patient vomited considerably, but he complained of very little pain. His stomach kept irritable for three or four days, and for the first six days his temperature ranged between 99° F. in the morning and 101.8° F. in the evening. The next four days, however, his temperature and pulse were normal, and he felt well. All this time he was fed with liquid diet and his bowels were quite regular.

About the 19th of August, the tenth day after the operation, he complained of deep-seated pain in the region of the wound, and his temperature ran up to 101° F., and on the 21st, at 9.45 p.m., it was 102° and the pulse 88. The pain was much worse now, and it extended down the front of the right thigh to the knee in the course of the anterior crural nerve. It was so intense that he was unable to straighten his limb. He had no chill at any time during the progress of the case. From now till the 1st of September his temperature ranged from 100° to 103°, and his general condition continued much the same. It was quite plain now that the bullet was lodged in the vicinity of the roots of the anterior crural nerve. Two or three unsuccessful attempts were made to locate it with the X-rays. After he took the change for the worse his side was bathed with boracic lotion as hot as he could bear it, three times a day, and large gauze pads soaked in the hot lotion were kept continually on his side. About the 1st of September he began to improve, and continued improving steadily till he completely recovered. He was discharged well on the 24th of September. He has been attending to his usual work ever since, and has not been ill a day.

Case Reports.

A CASE OF MORPHINISM ASSOCIATED WITH THEFT.*

BY

GEO. VILLENEUVE, M.D.,

Associate Professor of Medical Jurisprudence and Mental Diseases, Laval University, Montreal; Medical Superintendent, St. Jean de Dieu Asylum, Longue Pointe, Que.

I have the honour to bring before this Society a few remarks in connection with the case of A. B., said to be addicted to the excessive use of morphine, who was brought before the courts accused of theft and whose case I examined a short time ago. The examination into the mental state of A. B. was ordered at the request of persons who know him and who represented to the court that A. B. was addicted to the abuse of morphine. On this ground they alleged that he was irresponsible, or at least only partly responsible.

I should also add that A. B. had a bad reputation before the courts and in police circles. I was also informed that he had already been implicated in a very crooked affair of attempted swindling. They also told me that he did not lead a very laborious life, that his means of living were not very evident, etc., etc. On the whole, they seemed to consider him, and apparently not without reason, as a common criminal. However, before this last affair, the only one that caused his arrest, they had never had any doubts as to the sanity or responsibility of the accused. The court was also very sceptical with regard to the allegation of his friends.

I was, myself, very much astonished, for, while I had known A. B. for several years, had often had him under my notice, and had met him several times and even had long conversations with him, I had never noticed anything abnormal about him, not even anything particular in his speech or his manner of conducting himself, that would give me reason to hold any doubts regarding the integrity of his mental faculties.

A. B. was accused of having stolen some articles of merchandise from a storekeeper, and previous to his arrest had visited this store several times and under various pretexts. As each of his visits coincided with the disappearance of some object he was strongly suspected, and special care was taken to watch him. His arrest took place in the store, on being detected in the act of hiding under his overcoat an article he had just stolen.

There was no doubt about the criminal fact, the Court was convinced

* Read before the Medico-Psychological Society of Quebec, June 22nd, 1899.

of it; all that now remained was to enlighten them, on the responsibility of the prisoner. In this case it was sought to attribute the theft to the influence of morphine and it is for this reason that I think it will be interesting to recount the circumstances.

The ordinary psychoses, that is to say, the true perversions of the intelligence which constitute folly do no give occasion for much discussion. They exist or they do not exist. Let the malady be acute or chronic, let it show itself by paroxysms or let it be permanent, it manifests itself by particular symptoms and proves itself through them, and entails irresponsibility. It is different, however, with intoxications when the intellectual troubles are dependent on the action of the toxic agent and do not necessarily appear during the intermittency of the fits, being separated by complete lucid intervals; when, in short, they are dependent upon the action of, or (rarely) upon the privation from, the agent. In all such cases responsibility is not immediate, and, if I may so say, personal, but depends upon what may be regarded as outside the individual—on some prejudicial agent. So that in the present case we should not only ask, was the accused insane, but had his mental faculties undergone a complete obscuration at the time of the action owing to the use of morphine; and, if his actions were due to morphine, was he, or was he not, able to resist placing himself under the influence of the drug? Did he contract the morphine habit by being driven to it through special predisposition, or from an irresistible impulse, or, again, from being drawn into it in some way? Was he in possession of his free will when he gave way to his *penchant*? Very often, when the "expert" is called, the troubles have completely disappeared or diminished in a large measure. The expert who is not then a witness, has only to rely on doubtful testimony, and his retrospective inquiry has not the certainty that a direct examination would have given. Taking into account all these difficulties the following contains in substance the report I made to the Court:—

With A. B. the abuse of morphine dates back some years, but it is not habitual. He had twice already given away to it and both times had been under the doctor's care and by his treatment cured of it. He then showed symptoms of grave morphinism, complicated probably by the use of cocaine, delusions, hallucinations and even a tendency to prostration, so much so, that a priest even was called to his bedside. The actual attack goes back several months and began by the medical use of morphine during the course of a surgical treatment, but it was not slow to degenerate into an abuse and was prolonged far beyond his recovery from the surgical operation. The two former attacks began in almost the same circumstances.

This attack, according to the testimony of A. B., did not appear to be as severe as the others, as lately the accused had taken six grains a day, divided into two doses. He had, during the course of this last attack but anterior to his crime, taken stronger doses, and had felt symptoms of intoxication, inebriety, disagreeable hallucinations, etc.

From the moment of his arrest A. B. had been deprived of morphine, and when I examined him he showed unmistakable signs of the sudden suppression and forced abstinence from the drug. He was depressed, weak, emotional and experienced a feeling of disquiet and uneasiness, with a sensation of emptiness in his head, of cramps and pains in his legs and arms. He also suffered from excessive diarrhœa, profuse sweats and insomnia. Besides these signs he showed no trouble that could properly be called mental, or that would indicate in him the existence of any form whatsoever of mental alienation ; and it did not appear from the examination to which I submitted him nor from his history, that he ever showed such signs at any period in his life.

A. B. is not then actually insane and everything tends to show that he never was insane. It remains, then, to judge of what action the morphine may have exerted on his intelligence and responsibility in a general manner, but especially at the time he committed the theft.

The following,—taken from an author who has made a special study of the subject—is the generally accepted opinion on the morphine habit.

The person addicted to morphine rapidly reaches a point where he commits indelicate actions without comprehending the importance of what he does. There certainly exists in him, either at an advanced period of the habit or at the time he is forcedly deprived of it, a real diminution of free will. The will, paralyzed, ceases to revolt against certain vicious and criminal tendencies. From the point of view of the legal responsibility of such an individual, it is necessary to know pertinently if the accused had abstained or not from his stimulant at the time of his crime, and the stage of his habit. In the case of prolonged morphine intoxication, when the body is saturated with morphine to such an extent as to change the cerebral functional system, when it is shown to have caused an intellectual weakness and a diminution of the moral sense, the lessening of responsibility should be admitted as an almost certain rule. When the crime is the act of a morphine user forced thereto by the deprivation of the drug, we should consider it as a pathological impulse and attribute it wholly to irresponsibility. In a state of delirium tremens from the morphine, the patient should be considered a genuine lunatic.

It is easy from these points to judge of the responsibility of A. B. It cannot be contested that the habit of morphine has permanently

affected the intelligence of A. B.; his conversation is connected and rational, the details he gave me as to his manner of living are precise, and he appeared to me to be as intelligent as the majority of people of his class, education and profession. A. B. is sufficiently intelligent to understand in a general way the moral value of his acts, and to know the penal responsibility for them ; and outside the facts directly due to the influence of morphine, he never showed any intellectual trouble. A. B. is, then, not a lunatic. It only remains, then, to form a just appreciation of the effect of morphine in regard to the offence he committed.

At the time of the criminal offence A. B. was in his usual condition and not excited, while nothing strange in his manner of eating, in his carriage, or in his language, was noticeable. He was not at the time in a state of delirium tremens. Moreover, according to his own statement, he had not had any attacks for some time before his arrest. Nor does it appear that he was unconscious, for A. B. is accused of having stolen certain articles of merchandise from a storekeeper while in his shop, and ocular witnesses testify to the truth of the fact. A. B. gives the same version of all the incidents preceding, accompanying and following his arrest and immediately after the crime, but with this difference, that he denys his guilt. He states that the objects they thought they saw falling from under his overcoat when they forced him to open it, really fell from the sample table. There is here a discrepancy that might call in doubt the veracity of the parties, but not the consciousness of the prisoner. In reality, he told all the circumstances connected with the affair, but he perverted them in his endeavour to establish his innocence. Consciousness is the faculty that enables man to take cognizance of a fact at the moment it takes place. Memory is the faculty of recalling a fact and referring it to the time at which it took place. But memory can be used only in so far as it had knowledge. The prisoner remembers, then he had knowledge ; we can affirm that A. B. was not unconscious at the time of the incriminating offence.

The incriminating offence was not, moreover, the act of a morphine user urged thereto by want. He had taken his daily dose of morphine, he was in a state of satisfaction from indulgence in the drug. He had in his pocket a certain sum of money, he could not then have had the dread of being immediately deprived of morphine ; moreover, he was near the end of his attack, the craving was less acute, since he had himself considerably diminished the dose he took at first.

A. B. does not appear to have given way to an irresistible *penchant* in giving himself up to the use of morphine, inasmuch as the attack

began with taking the morphine in the course of surgical treatment. The morphine did not act in an abnormal manner, since the toxic phenomena only appeared after he had taken strong doses and after prolonged use. Taking into account, then, the mental state of the prisoner from the special point of view of having indulged in morphine, it would be impossible for me on this head to come to the conclusion that he was absolutely irresponsible. The friends of the prisoner made him out to be a degenerate, but they brought forward no testimony to prove the fact. It it is easy to say that degenerates fall into all manner of excesses and that they are very numerous among the victims of the various intoxicants.

It seems to me that the following conclusions are easily deduced from the report I have just given :—

(1) There is no proof that the prisoner has become addicted to the use of morphine.

(2) It is not proven that he was insane at the time of the incriminating offence or at any other time.

(3) It is not proven that he was intoxicated by morphine to such a degree that he lost all knowledge of his acts.

(4) The act he committed does not show the signs of a pathological act.

Kraft-Ebbing in his treatise on psychiatry says :—"That the person "given to morphine is a man without force of character, without "energy, of weak will power, a man to whom *in statu criminali* we must "always give the benefit of extenuating circumstances." This is an opinion the honorable judge might make use of in sentencing the prisoner, keeping in view the judicial information which he had of his antecedents.

It is certain that the use of morphine more often debases the moral tone of the individual than it effects his intelligence.

In concluding I stated to the honorable judge that he had actually before him a sick man, and that it was the duty of the doctor to implore for him all possible indulgence.

In consequence of this report the Court gave the prisoner the benefit of attenuating circumstances and imposed on him only a light sentence.

RETROSPECT

OF

CURRENT LITERATURE.

Medicine.

UNDER THE CHARGE OF JAMES STEWART.

Enteric Fever.

W. C. BOSANQUET, M.D. "Notes on Two Hundred and Fifteen Cases of Enteric Fever."—*British Medical Journal, July 8, 1899.*

Statistics on typhoid fever are always of interest, and a report by Dr. Bosanquet on 215 cases of enteric fever treated in the Charing Cross Hospital between the years 1890 to 1898 affords many points of detail gathered from the series. We notice but a few of them.

In no instance could it be established that a previous attack had occurred. About 70 per cent. of the cases were in the last four months of the year. Looseness of the bowels was the rule. In about one-sixth of the cases constipation was present. Abdominal pain, in uncomplicated cases, was present in 15 patients. The spleen was palpable in but 42 instances. Hæmorrhagic cases numbered 21, only 6 of which ended fatally. Not unfrequently, traces of albumin were found in the urine, while 20 patients showed large amounts of albumin denoting actual kidney disease.

Pneumonia was present in about 17 cases, while well-marked pleurisy was found in but one instance. Interesting among the nervous system manifestations of the disease were increased knee jerks and ankle clonus in protracted cases, a case of paralysis of the left foot, a case of loss of knee jerk and pain in the legs; "striæ atrophicæ" developed in another case, not of this series, however.

The temperature in 96 patients rose to 104 ° F., 27 of whom had a temperature of 105° F. The pulse rarely rose to 120. Hæmoptysis was present in 7 patients and 4 vomited blood. Sixty-eight per cent. of the cases showed the typical typhoid rash. Eight per cent. presented irregular rashes. They were morbilliform, scarlatiniform, bullous, and petechial. Relapse or recrudescence occurred in 59 cases. In one case there were four relapses. Of the 59 patients who suffered relapses, only

four died. The longest duration of fever—92 days—was noticed in the case of the child who suffered four relapses. Fatal cases numbered 40, or 18.5 per cent. Post-mortem records of 35 cases showed 40 per cent. due to intestinal perforation. Hæmorrhage of the bowel was the cause of death in but one case, pneumonia in 8 cases, pericarditis in one and neuritis in one. Peritonitis without perforation, thrombosis of the pulmonary artery, and embolism of an iliac artery, each caused one death. The remaining deaths were due to cardiac failure. The ambulatory cases, of which there were six, were all fatal. Cyanosis and active delirium were signs of grave import.

The treatment in these cases was expectant, consisting in liquid diet, absolute rest and attention to symptoms. The routine medicine given was dilute hydrochloric acid, syrup of orange and water. Excessive fever was treated by tepid, cold, or iced sponging. Quinine was occasionally used. Turpentine as an antiseptic was most frequently relied upon.

Guaiacol in Phthisis.

A. F. Shoyer. "The Application of Guaiacol in Phthisis."—*The Scottish Medical and Surgical Journal, September, 1899.*

Before analyzing the results of his treatment according to this method, Dr. Shoyer gives in brief summary the review of literature on this subject. He says: (1) that a great number of investigators have used the method; (2) that the drug is probably absorbed by the skin; (3) that the antipyretic effect is undoubted; (4) that there are certain undesirable results, viz., profuse sweats, exhaustion, and danger of collapse; (5) that the temperature tends subsequently to rise to a higher level in many cases.

The mode of application of the drug is simple. It may be painted on the surface or put on with wool beneath a watch-glass or other impervious material. At first this investigator used six minums of the drug three times daily, increasing up to as many as thirty minums per day. Twenty-five cases were under treatment, and the following is a brief analysis of them:—

Ten were improved, twelve were unaffected, while three were adversely affected. Of those improved, five were febrile, three were subfebrile. Of those indifferent to the treatment, four were febrile and had secondary infection, and four were indefinite. The three cases which did not tolerate the treatment were febrile and subjects of scondary infection.

The writer goes on to show that the best cases are those with febrile temperature free from secondary infection. The subfebrile cases do fairly well. The majority of those improved and discharged from the hospital subsequently returned in a worse condition than before.

Red-Marrow in Anæmia.

J. S. Fowler, M.D. "An Experimental Investigation on the action of Red-Marrow on the Blood in Anæmia."—*Scottish Medical and Surgical Journal, September, 1899.*

Dr. Fowler, working in the laboratory of the Royal College of Physicians, Edinburgh, experimented on rabbits with a view of determining the value of the red-marrow method in the treatment of anæmia. The summary of his results is briefly as follow :—

(1) Subcutaneous injections of red bone marrow have no action on the red corpuscles or hæmoglobin of healthy animals.

(2) When the red corpuscles and hæmoglobin fall below their normal limits, injections of marrow produce a decided rise in both, but this rise, while well marked and sudden, is of short duration.

(3) Along with the increase of the red corpuscles there is no corresponding improvement in the form of the cells.

(4) The active principle is present in an aqueous but not in an alcoholic extract of marrow. It is not precipitated by boiling, and does not contain iron, and may possibly be a deutero-protose.

"Koplik's Sign" from an Historical Point of View.

Siegfried Weiss. "The correct historical place for the so-called Koplik's early symptom of measles."—*Wiener Klinische Wochenschrift, No. 25, 1899.*

Since 1898 many references have been made to "Koplik's Sign" in the diagnosis of measles, and those who have followed the journals know the character of the eruption which Koplik described. Observing Koplik's description in the *Medical Record,* Dr. Weiss was surprised that so striking a sign could remain so long unobserved. During a search through the literature he discovered in Nothnagel's Special Pathology and Therapy, edition 1896, a description of the enanthem and exanthem peculiar to measles, by a Danish physician, Dr. N. Flindt. This writer made his observations as early as 1880, and in so far as a comparison of his description in the German text with that of Koplik in the English text can be made, one must conclude that the enanthem of measles—Koplik's early sign—has been described many years ago. Flindt states that such an eruption may be seen on the palpebral conjunctival membrane as well.

W. F. Hamilton.

Gynæcology.

UNDER THE CHARGE OF WILLIAM GARDNER.

Uterine Cancer.

LANDAU, DR. THEDOR., Berlin. "On the Surgical Treatment of Uterine Cancer and its Recurrences."—*British Medical Journal, May 27, 1899.*

As in mammary cancer, where the surgeon first removed merely the gland or the affected portion while now he removes all tissues having any relation to it, so now the gynæcologist removes for uterine cancer not merely the uterus but often the broad ligaments as well. Carcinoma uteri is essentially a local disease, and patients are nearly always carried off by extension of the disease to neighbouring organs instead of by the affection of distant parts, as in malignant disease of other organs. This is readily demonstrated in the post-mortem theatre where metastases are seldom seen unless the cancer has been present for a very long time. Again, cancer of the uterus is far more likely to recur in the scar after removal than in distant regions, and finally, when the entire broad ligaments are removed with the uterus the results far surpass those attained by simple removal of the uterus itself. Thus "it follows generally that uterine cancer is adapted especially for surgical treatment."

Experience has proven the value of entire extirpation of the internal genitals *per vaginam* by means of clamps. These are preferred to ligatures because of their crushing and necrotising effects and also because they can be applied effectually in regions where ligatures would slip.

"When the carcinoma has spread to the parametria and the uterus is not greatly enlarged in size, vaginal total extirpation is technically possible, and therefore indicated. Only when the enlargement of the uterus caused by the cancer itself or by complication with myoma is so great that not even with the aid of vagino-perineal incisions can the parts be brought out *in toto* through the vagina, is ventral hysterectomy superior to the vaginal method."

Of 123 cases operated upon, 8 died from the operation; 48 of these patients underwent the operation more than five years ago, and of these, 27 per cent. have remained well. Landau systematically removes recurrences, reporting a very successful case.

Fibroid in a Uterus Unicornis.

DORAN, ALBAN, F.R.C.S. "Removal of a Fibroid from a Uterus Unicornis in a Parous Subject."—*British Medical Journal, June 10, 1899.*

The patient was 38 years of age, and had a painful pelvic tumour.

During eight years of married life, she had been pregnant twice, once three years after marriage, going to full term, and, more recently, aborting at the second month. Shortly after the full time labour the uterus began to prolapse, and she required to wear some kind of support. One year before seen by the operator, she began to suffer from a painful pelvic tumour. For two weeks previous to operation the temperature ranged between 97.4° and 99.8° F., the pulse at no time exceeding 84. Menstruation was regular, but accompanied by sharp pains in the right iliac fossa. Local examination revealed an anteverted uterus with long but small cervix, the cavity measuring three and a quarter inches. To the right lay a small hard oval mass, which was freely moveable and separate from the uterus as far as one could tell bimanually.

During operation the mass was found to be a fibroid connected with the right side of the uterus by a broad band. From the outer side of the tumour sprang the right ovary and tube and a round ligament which was considerably larger than its fellow of the opposite side. The ovarian vessels on this side were also enlarged, and there was a large well marked uterine artery running up the other side.

The left cornu of this uterus was well developed, and had allowed of gestation twice as well as regular menstruation. The right cornu started as an impervious fibrous band, which expanded into the tumour from which the right round ligament and appendages sprang, and which was supplied directly by the main trunk of the right uterine artery. These facts prove that the case was one of a fibroid situated in the undeveloped horn of a uterus unicornis. The condition is very rare.

Operative Treatment of Broad-Ligament Cysts,

WATKINS, THOS. J., M.D., Chicago. "Vaginal Incision and Drainage of Simple Broad-Ligament Cysts."—*Amer. Gynæc. and Obstet. Jour., July, 1899.*

This operation is for the treatment of simple non pendunculated cysts of the broad ligament and is not a revival of the old operation of tapping, as the most dependant part of the cyst is incised and perfect drainage secured. It is claimed that by this method we substitute a minor for a major surgical operation, as at present most operators open the abdomen and enucleate the cyst. Also, it has but little effect upon the patient's muscular or nervous system, as no organs are removed and no ligatures or sutures are used.

Refilling of the cyst, malignant disease, and difficult diagnosis, are the chief objections to this operation, but the writer has treated five cases (twice, three years ago, twice, two years ago, and once during the last year) with good results.

As to the effectiveness of simple tapping in curing cases, authorities differ. Winkel expects a cure "from puncture when the contents are thin or of low specific gravity," but Lawson Tait doubts if tapping ever cures a cyst, reporting one case which refilled years after the operation. Wells and Atlee obtained good results from removing the top of the tumour, thus making it continuous with the peritoneal cavity. Wells saying "that parovarian cysts have the peculiarity of healing entirely after evacuation." Rupture of the cyst may or may not result in cure, but the writer knows of no case where suture of the edges of the cyst wall to the sides of the abdominal incision resulted in the refilling of the cyst.

Gestation Occurring in Uterine Horn.

MANIERRE, CHAS. E., M.D., Chicago. "Cornual Pregnancy."—*Amer. Gynæc. and Obstet. Jour., September, 1899.*

In a bicornuate uterus pregnancy may occur in either horn whether rudimentary or not. Up to 1888, thirty-four cases of pregnancy in an undeveloped uterine cornua had been reported, in twenty-four of which the horn had ruptured and so caused death. In 1897, Cullen and Wilkins, of Johns Hopkins Hospital, gave statistics of thirty-nine cases, not one of which ruptured and survived; rupture occuring as a rule at the fourth or fifth month, being a little later than in cases of ordinary tubal gestation. The fatal result very quickly follows rupture, the case upon which Cullen and Wilkins founded their report terminating fatally within two hours of the first onset of the symptoms of rupture, thus precluding the possibility of any surgical interference, the bleeding being favoured in a typical case by the horn being free or moveable.

The existence of patency of the tube previous to impregnation is doubted by many. Turner is one of the strongest advocates of the theory that the horn is not always patent before conception, as in a series of bicornuate uteri examined by him all gradations were met with from an impervious cord to a large horn with a good-sized cavity. Where the horn was closed previous to pregnancy there are two ways by which this horn could become the seat of gestation. Either a spermatozoon has travelled across the pelvic cavity from one tube to the other, and there impregnated an ovary, or else an ovum from the healthy side has become impregnated and then got into the tube of the other side. The fact that a well-developed corpus luteum was found in the side opposite to that containing the pregnancy in a large proportion of cases is strongly significant.

No method of making a definite diagnosis previous to rupture has yet been discovered, the rarity of the trouble rendering the framing of any rule for this purpose extremely difficult.

F. A. L. Lockhart.

Canadian Medical Literature.

UNDER THE CHARGE OF KENNETH CAMERON.

[The editors will be glad to receive any reprints, monographs, etc., by Canadian writers, on medical or allied subjects (including Canadian work published in other countries) for notice in this department of the JOURNAL. Such reprints should preferably be addressed to Dr. Kenneth Cameron, 903 Dorchester street, Montreal.]

The Canadian Practitioner and Review.

July, 1899.

1. Hyoscine. J. T. FOTHERINGHAM.
2. Surgical Gynæcology Among the Insane: Right or Wrong. A. T. HOBBS.
3. On the Use of Rubber Splints in the Treatment Following Intra-Nasal Operations. J. PRICE-BROWN.
4. Surgical Intervention in Cases of Paralysis. B. E. McKENZIE.
5. Criminals and Their Characteristics. J. H. McCASSY.

1. Hyoscine is not used, FOTHERINGHAM thinks, as frequently as its merits, in properly selected cases, would justify. The salt commonly employed is the hydrobromide in doses usually of 1-100 of a grain. The profession at large is aware that it is used in the asylums for the insane, in manical cases, but is not aware of the valuable service it can render in general practice. Several cases widely differing in character are quoted, in which marked benefit followed its use. Its chief value is in cases of insomnia due to acute mania, delirium tremens, hysteria or similiar cases,—one might say, perhaps, cases in which there is a functional over-activity of the higher centres without undue depression of the vegetative centres. Experience has shown it to be injurious to melancholics, while in general paresis, chronic mania, epilepsy and dementia it is no better than chloral and is apt by constant use to increase excitement. Objections to the drug are, first, the uncertainty of its action, a peculiarity common to all drugs, the brunt of whose influence falls upon the nervous system. Like all drugs of the Atropaceæ, it dilates the pupil, dries up the throat, and if pushed may cause dizziness, delirium and an erythema of the skin. Without pitting a limited experience against Hare's dictum that "the applicability of the drug is very limited indeed, and untoward effects are common," it seems to the writer that that dictum is too strong, and that the drug is deserving of more frequent use, particularly in meningitis and in conditions of cortical over-activity, so long as we bear in mind that its untoward effects

are to be found in the three directions, of the cerebration, the circulation and the respiration.

2. HOBBS answers the criticisms of those who object to the gynæcological surgery done among the insane, and insists that "these operations are done primarily and specifically for the removal of physical disease and the promotion of bodily comfort."

3. PRICE-BROWN says that intra-nasal diseases arise when from one cause or another the septum touches the turbinated, or when the chink of the inferior meatus becomes so narrow that the mucous secretions accumulate in the passage, thereby inducing post-rhinal catarrh and preventing normal respiration on that side. In dealing with these cases it is not the operative but the post-operative treatment that he has found the most troublesome. The obstruction might be removed, but to procure smooth equable pressure upon the incised tissues during the process of healing is a much harder matter. In many cases silver tubes are useful, but in many others they are inapplicable; and in the latter class, in which the chink can only be a narrow one at best, the rubber splints, as advised by Lake, in the August number of the *Journal of Laryngology, Rhinology and Otology,* made from thick rubber sheeting, do better work than anything else at our command. Their surfaces are smooth, compressible and elastic; they can be readily cut to the required shape and they can be obtained of any thickness. Once in, the splint not only retains its place but by elastic pressure gives a smooth and even support to the raw surface to which it is applied, as well as prevents that profuse granulation which otherwise would sometimes occur. At the same time it does not retard the gradual extension of the new mucous membrane, while it moulds the tissues into a smooth and regular form.

The Canadian Journal of Medicine and Surgery.

June, 1899.

1. Abstract of an Address on a Proposed Scheme for a Dominion Medical Council. T. G. RODDICK.
2. On the Rôle of the Gonococcus in Surgical Pathology and Secondary Infections. THOMAS H. MANLEY.
3. My Lovable Friend, the Lapido-Maniac. ALBERT S. ASHMEAD.

July, 1899.

4. Report of the Laboratory of the Provincial Board of Health. JOHN J. MACKENZIE.
5. A Medico's Visit to Richmond, Va. W. A. YOUNG.
6. Constipation, Some of Its Effects and Its Non-Medical Treatment. E. S. PETTYJOHN.

4. J. J. MACKENZIE in his report, refers to the work done in his

laboratory. An interesting feature was the examination of four specimens from cases of suspected cerebro-spinal meningitis. The specific organism of this disease, the diplococcus intracellularis meningitidis, differs from the diplococcus of pneumonia in its staining, cultural and pathogenic characters, so that in material from the meninges it is usually possible without much difficulty to differentiate the two forms. In fatal cases of this disease, some fluid should be removed by lumbar puncture, if a *post-mortem* is not permitted, as a positive diagnosis can only be made by bacteriological examination. Physicians should recognize the importance of making as certain as possible the diagnosis in cases of this disease, since, if there is any danger of an epidemic, precautions should be taken.

He had also been engaged in making a series of investigations into the character of a bacillus found in grass, which resembles the tubercle bacillus. Its growth in culture media is not unlike that of the bacillus of tuberculosis except that it is much more luxuriant and rapid. It stains with ordinary tubercle stains, and in cover glass preparations looks so like the tubercle bacillus as to give rise to doubt in one not well acquainted with the true form. Inoculated in large doses into guinea pigs it gives rise to a disease of the nature of a pseudo-tuberculosis. He was able to show that its peculiar staining characters are due, as in the bacillus of tuberculosis, to a fatty envelope ; but contrary to what occurs in bacillus of tuberculosis this fatty envelope can be readily dissolved off with alcohol, so that after boiling for ten minutes in alcohol the organism no longer takes the peculiar stain, but stains like any other form. The chief interest in this form and in others which have recently been discovered, lies in its evident rather close relationship to the bacillus of tuberculosis. Its practical importance arises from the danger of confusing it with the tubercle bacillus in butter and milk.

The Canada Lancet.

June, 1899.

1. The Early Diagnosis of Pulmonary Tuberculosis with Treatment. GILBERT GORDON.

July, 1899.

2. Pelvic Diseases in the Female Insane,—Its Significance and Our Responsibility. ERNEST HALL.

1. GORDON discuses the various signs, symptoms and methods for detecting pulmonary tuberculosis in its earliest stage. The credit of cure is due to the man who makes the diagnosis early. The blame is often on the man who fails to discover the disease until cavity formation has begun.

Dominion Medical Monthly.

June, 1899.

1. Mistakes in Gynæcology. G. R. CRUICKSHANK.
2. Clinical Notes From Johns Hopkins Hospital—Clinic of Dr. Kelly. By ERNEST HALL.

July, 1899.

3. Fractures. E. B. SMITH.
4. The Surgical Treatment of the Insane in Private Practice. ERNEST HALL.

The Maritime Medical News.

June, 1899.

1. Tuberculin—Its Value as an Aid in Early Diagnosis of Tuberculosis. D. A. CAMPBELL.
2. Abstract on the Prevention and the Treatment of Cancer of the Uterus. A. LAPTHORN SMITH.

July, 1899.

3. Does our Educational System Tend to Produce the Highest Type of Manhood in the Youth of the Country? JOHN MCMILLAN.

   (Being the Presidential address delivered before the meeting of the Medical Society of Nova Scotia.—Truro, July 5, 1899.)

4. Higher Medical Education. R. MACNEILL.

   (Being the Presidential address, delivered before the meeting of the Maritime Medical Association.—Charlottetown, July 12, 1899.)

1. CAMPBELL strongly advocates the use of tuberculin for making an early diagnosis in cases of tuberculosis, where the symptoms and physical signs may not warrant a positive conclusion. His personal experience with the test extends over several years, and while not embracing a very large number of cases has been very satisfactory. So far he has only resorted to the test in suspected cases of serious membrane and genito-urinary tuberculosis.

Canada Medical Record.

June, 1899.

1. On the Prevention and Treatment of Cancer of the Uterus. A. LAPTHORN SMITH.

July, 1899.

2. On Sanatoria—Locality and Cure. A. J. RICHER.
3. Progress of Gynæcology. A. LAPTHORN SMITH.

Kingston Medical Quarterly.

July, 1899.

1. Examination of the Prepuce in Cases of Deferred Diagnosis. A. F. BARBER.
2. Clinical Demonstration in Operative Gynæcology. I. WOOD.
3. Complications of Scarlet Fever and Their Treatment. J. W. CAMPBELL.
4. Extract of Supra-renal Capsule. J. C. CONNELL.
5. Tuberculosis Prophylaxis. E. RYAN.
6. Some Clinical Notes of Surgical Cases. D. E. MUNDELL.
7. Hay Fever. J. C. CONNELL.
8. Fæces and Their Examination. W. T. CONNELL.
9. A Typical Operation for the Radical Cure of Olique Inguinal Hernia. W. G. ANGLIN.

La Revue Medicale.

12 Juillet.

1. Les Désordres Urinaires, Surtout Vésicaux, Chez la Femme. M. T. BRENNAN.

19 Juillet.

2. De l'Interrogatoire et de l'Examen de la Patiente. M. T. BRENNAN.

26 Juillet.

3. Les Irrigations Vaginales et les Hautes Injections Rectales en Gynécologie. M. T. BRENNAN.

La Clinique.

Juin, 1899.

1. Quel doit être le Traitement de Choix de l'Erysipele de la Face? ADELSTAN DE MARTIGNY.

Juillet, 1899.

2. Correspondence : à Monsieur Le Docteur Paul Lozé (de Paris).

1. DE MARTIGNY compares the treatment of erysipelas of the face by antiseptic applications with the injection of an antistreptococcic serum, and is very strongly impressed with the curative power of Marmoreck's serum. This, however, may be combined with applications to the face of sublimate solutions. In a discussion which followed the reading of the paper, all agreed with the writer that the injection of the serum was the treatment of choice in this disease.

Reviews and Notices of Books.

TWENTIETH CENTURY PRACTICE. An International Encyclopædia of Modern Medical Science by Leading Authorities of Europe and America. Edited by THOMAS L. STEDMAN, M.D., New York. In twenty volumes. Volumes XV. and XVI., Infectious Diseases: Infectious Diseases and Malignant Neoplasms. New York, William Wood & Co. 1899.

Volumes XIII. and XIV., which deal with infectious diseases, have been reviewed in a previous number of this Journal. Volume XVI. is not published in its order. Volume XV. deals with Influenza, Typhus Fever, Plague, Glanders, Anthrax. Foot-and-Mouth Disease, Actinomycosis, Rabies, Pyæmia and Septicæmia. The article on Influenza, written by Professor Ditmar Finkler, of Bonn University, is a very complete description of this disease, containing a full account of the epidemiology, bacteriology, etc., of this wide-spread affection. While that part dealing with the treatment of influenza is very brief compared with the whole article, which embraces about 250 pages, yet in it Professor Finkler reviews the various well-recognized methods and sums up by saying that we come to the conclusion that many of the methods of treatment belong to the experimental period. He recommends that all routine measures should be avoided, and utters a warning note against the use of antipyrine and other measures for reducing the temperature, believing that such measures in many cases must have done harm.

Eduardo Licéaga, Professor in the National School of Medicine, Mexico, treats the subject of Typhus Fever. Bubonic Plague is discussed by Kitasato and Nakagawa. Considerable interest attaches to those characteristics which distinguish the plague baccillus or "bacillus pestis." Under the bacteriology of this disease the authors draw a very definite distinction between the bacillus of Kitasato and that of Yersin. Upon the relation of soil to this disease the authors give no positive teaching, dismissing this point by saying but little more than that it is very difficult to determine. That plague virus does exist in the soil, and that plague is partially at least a miasmatic disease, is affirmed by Payne in Allbutt's System of Medicine.

Frank S. Billings writes upon Glanders and Anthrax. Foot-and Mouth disease is described by Ismar Boas, of Berlin, while Ponfick, of Breslau, writes upon Actinomycosis. Keirle contributes a valuable article on Rabies. The volume closes with a conjoint article on Pyæmia

and Septicæmia by J. McFadden Gaston and J. McFadden Gaston, Jr., of Atlanta.

In addition to articles on Diphtheria and Tetanus, volume XVI. contains articles on Cancer, Sarcoma, Malignant New Growths of the Skin, and Malignant Diseases of the Female Generative Organs.

The contributors to this volume, making it one of the most valuable of this most important work, are Victor Babes, of Bucharest; John T. Bowen, of Boston; Coley, Jacobi, and William H. Park, of New York; McGuire, of Richmond, Va.; and W. Roger Williams, of Bristol, Eng.

More than half of this volume is taken up by the articles on Cancer and Sarcoma by W. Roger Williams and William B. Coley. The general pathology of each disease is discussed by Dr. Williams. The symptomatology and treatment are dealt with by Dr. Coley. These articles are full, and give a complete review of the subject, presenting what is new in both pathology and treatment.

W. F. H.

DISEASES OF WOMEN, A Manual of Gynæcology. By F. H. DAVENPORT, A.B., M.D., Assistant Professor in Gynæcology, Harvard Medical School; Assistant Surgeon to the Free Hospital for Women, Boston. Third Edition, Revised and Enlarged. 1898. Lea Brothers & Co., Philadelphia and New York.

This little work has now reached its third edition, and the demand for such an edition is the best proof one can have of the popularity and usefulness of the book.

It is well up to the standing of the publishing house that has placed the book on the market, being well written and well printed, and the illustrations are both numerous and useful. The book will be found of most service to the busy practitioner who desires to look up the treatment of a case, as the anatomy and pathology are not sufficiently full to commend it to the student. The teaching is sound throughout with almost no exception, except that the reviewer cannot endorse the doctrine that patients "may be taught to remove and replace the simpler forms" (of pessaries) "themselves," and also would like to have seen a word of warning added to the statement "that sometimes alcohol, especially in the form of gin, is effective" for dysmenorrhœa.

Taking it altogether, this book will prove both instructive and pleasant reading for the above mentioned class of readers.

F. A. L. L.

Society Proceedings.

CANADIAN MEDICAL ASSOCIATION.

The Thirty-Second Annual Meeting of the Canadian Medical Association was held in the Normal School Building, at Toronto, on August 30th and 31st and September 1st, 1899.

Morning Session, August 30th.—The meeting was called to order by the President, Mr. Irving H. Cameron, of Toronto, and the Dean of Trinity College delivered the opening prayer. Dr. Arthur Jukes Johnson, Chairman of the Committee of Arrangements, then explained the programme of business and entertainments for the three days of the meeting.

The President introduced the following visitors and delegates :—

Dr. William A. Coley, of New York; Dr. George M. Gould, of Philadelphia; and Dr. A. R. Robinson, of New York; Drs. J. C. Gunn, of Pittsburg, and Thos. Turnbull, of Allegheny, delegates of the Pennsylvania State Medical Society ; and Drs. Brownlaw, of Ogdensburg, and Wendell Phillips, of New York, delegates of the Medical Society of New York State. Telegrams were read by the Secretary from Drs. J. M. Beausoleil, of Montreal, the retiring president; Edward Farrell, of Halifax; and A. Lapthorn Smith, of Montreal, regretting their inability to be present.

The minutes of the last Annual Meeting were read and confirmed.

A nominating committee, consisting of Drs. Roddick, J. Alex. Hutchison, McLeod, Muir, Walker, Chown, Tunstall, Bray, Taylor, A. J. Johnson, Bruce, Smith, R. W. Powell, Riordan, McNeill, and Bayne were elected.

The following papers were then called :—

(1) Dr. A. G. Nicholls, of Montreal, on "An Enquiry into the Etiology of Chronic Bright's Disease," was taken as read, Dr. Nicholls not being present.

(2) Dr. A. Lapthorn Smith, of Montreal, on " Floating Kidney simulating Diseases of the Ovaries and Tubes," was taken as read.

(3) Dr. J. G. Adami, of Montreal, on " Tuberculosis in Canadian Cattle and its Prevention." The question whether bovine tuberculosis was communicable from animal to animal was answered in the affirmative, a large amount of evidence being adduced in proof. The disease was spreading with frightful rapidity in Northern and Western Europe, slaughter house results showing that from 22 to 25 per cent. of the animals were affected. Dr. Adami recommended that all animals imported from other countries, and especially from Europe, should be quar-

antined for seven weeks. This was necessary on account of the fact that infected animals which have shown reaction to tuberculin do not react again until a period of some weeks has elapsed. The loss to the farming community and to the country by the prevalence of the disease was pointed out. With regard to communicability of the disease from animals to man and the modes of infection, Dr. Adami showed that although the amount of reliable evidence is singularly slight and the difficulties in the way of determining the point great, tuberculosis could be communicated through the milk and especially where there was disease of the udder. No country in the north temperate zone was so free from the disease as Canada, only 5 per cent. of 90,000 animals tested during 1898 showing infection. Among the reasons for this healthy condition of our cattle was that the keeping of cattle within town limits cooped up in barns was almost unknown, and that in general they have abundant pasturage and range over wide areas during the year. The speaker concluded by urging that steps be taken to completely eradicate the disease in Canada, while, owing to its rarity, it was possible to do so without incurring great expense, and discussed the various means by which this might be effected. The disease might be completely eradicated in three years.

Mr. J. J. McKenzie agreed with Dr. Adami regarding the influence of the climate of Canada in tending to keep cattle in a healthy state, but thought that the method prevailing throughout the country of keeping herds in small barns closely huddled together offset this to a great extent. He cited some work done by himself supporting Dr. Adami's statement that the milk of tuberculous cows did not usually contain bacilli unless the udders were affected.

Dr. C. L. Starr, of Toronto, thought that a period of quarantine of seven weeks was open to many objections. He would prefer, instead, to rely upon a certificate of freedom given by the breeder. He considered Bang's system as the most practical way of dealing with the disease in Canada.

Dr. Turnbull, of Allegeheny, Penn., considered that a quarantine of seven weeks, or even longer, was the surest way of preventing the importation of diseased cattle. He described the Pennsylvania laws on the subject, and showed how much benefit had been done in that state by enforcing them.

Dr. Bryce, Secretary of the Ontario Board of Health, thought that Dr. Adami had made altogether too favourable an estimate of the freedom of Canadian cattle from tuberculosis. He considered that infection in animals, as in man, most often took place through the respiratory tract, and nothing was of more value in preventing it than a proper system of ventilation of the byres. The milk inspection law of Ontario gave power to carry out in infected herds a system much similar to Bang's.

Dr. Roddick, M.P., of Montreal, had drawn the attention of parlia-

ment to the facts set forth in Dr. Adami's paper in connection with a series of resolutions passed by the Montreal Medico-Chirurgical Society. He had impressed on the Government the importance of allowing only properly certified veterinary surgeons to inject tuberculin and so prevent the possibility of fraud. He agreed with Dr. Turnbull that the quarantine should be made as long as possible, and also referred to the question of ventilation as of great importance. He did not think that there sufficient care taken in this regard.

Dr. Adami, in reply, admitted that the fact that his statistics were obtained partly from picked animals selected for exportation, probably stated the case too favourably, but at the same time contended that it would be impossible in any other country to find only two cases of tuberculosis among 90,000 animals selected in the same way. He related an instance to show the value of a seven weeks' quarantine over certification. A herd of shorthorns, certified on the other side to have passed the tuberculin test, were kept in quarantine until a possible immunity from injection previous to their entering the country had had time to pass off, and a second injection had shown the majority of them to be affected. The objection to Bang's system was that it would take seven or eight years at least to eradicate the disease, while by the plan proposed in his paper only three or four years would be required.

(4) Dr. J. H. Elliott, of Toronto, "The Results already achieved at the Gravenhurst Sanitarium." With an expenditure of seventy thousand dollars, accommodation had been provided for fifty patients. After a description of the internal arrangements of the building, the results for the past year were given, which may be summarized as follows :—Number admitted, 116; discharged, 83. Of these, apparently cured, 12; disease arrested, 23; marked improvement, 29; unimproved, 11; and failed, 8. A table of the increase or otherwise in weight was given, and the general results stated to be equal to those obtained in any other sanatorium on this continent.

Afternoon Session, August 30th.

(5) Dr. J. H. Richardson, of Toronto, "Christian Science." The absurdities of Christian science were shown by numerous quotations from Mrs. Eddy's book on "Science and Health." After pointing out the many ways in which statements in one part of the book were contradicted by the author herself in subsequent chapters, the speaker characterised the system as a medley of folly and blasphemy.

(6) The President, Mr. Irving H. Cameron, of Toronto, then delivered his Annual Address, the subject being "Overcrowding and the Decadence of Scholarship in the Profession." (See page 649 of the September number.)

(7) Dr. F. Montizambert, Director-General of Public Health, Ottawa,

read a paper entitled "An Experience in Formaldehyde Disinfection." (See page 769.)

(8) Dr. J. W. Stirling, of Montreal, being absent, his paper, "Recurrent Paralysis of the Third Nerve," was read by title. (See page 777.)

(9) Dr. Geo. M. Gould, of Philadelphia, read a paper entitled "Massage and the Relief of Eye Strain in the Treatment of Glaucoma," a subject which he has endeavoured to keep prominently before the profession for some years, believing that skilfully performed massage will not only act as a prophylactic against threatened glaucoma, but will even do away with the necessity of operation in some cases. One great advantage of the treatment was that it was within the power of every medical man to employ it, the patient himself being taught to make many of the necessary movements.

Dr. Reeve, of Toronto, said that glaucoma was such an insidious disease, that anything tending to act as a prophylactic would be hailed with delight by not only the specialist, but the general practitioner.

(10) A paper by Dr. N. A. Powell, of Toronto, on "The Methods and Ultimate Results of Operations for Halux Valgus," was taken as read.

(11) Dr. A. R. Gordon, of Toronto, read a paper on "Treatment of Acute Digestive Disorders of Infancy." After enumerating the various forms of acute disease met with and the symptoms produced by the products of decomposition within the intestine, he strongly urged the necessity of withholding everything by the mouth except water at first, then giving rice and albumin water, liquid peptonoids, etc., leaving milk until the last. Purgatives were of value in some cases, but antiseptics rarely of any merit.

A. L. Benedict, M.D., of Buffalo, did not agree with the author in holding intestinal antiseptics of no value. Speaking of the use of opium, which he rarely administered, he drew attention to the wonderful sedative effect of the old-fashioned remedy of catnip tea.

Dr. Holmes, of Chatham, pointed out that the pain and uneasiness which these children suffer are due to the poisons in the alimentary canal; opium is contraindicated because it not only does not lower the temperature, but prevents the elimination of these poisons. He believed strongly in the efficacy of cold baths or an ice cap with cold sponging and calomel and castor oil.

(12) Dr. Frederick Fenton, of Toronto, read a report of a "Case of Subcutaneous Emphysema." (See page 774.)

(13) Dr. G. H. Burnham, of Toronto, then read a paper entitled "The Successful Treatment of three important cases by the Combined Form of Treatment;" and (14) Dr. E. J. Barrick, of Toronto, "The Best Method of dealing with the Consumptive Poor." He suggested the establishment of a rural sanatorium in connection with each municipality, this to include, besides the buildings for incipient cases, accommodation for the

more advanced cases, and until this was possible, to utilize, as far as practicable, the various existing hospitals for the reception of such cases, and to urge upon such institutions the necessity of adopting such means of isolation as may be approved by the local boards of health. An attempt could be made to provide the necessary funds by the co-operation of the Dominion and local legislatures and the various charitable institutions. A plan of co-operation was then detailed. The above outlined plan, he thought, could be carried out as soon as public opinion was educated to the immense importance of checking consumption.

Morning Session, August 31st.

(15) Dr. A. L. DeMartigny, of Montreal, read a paper on "Erysipelas, with treatment by Marmoreck's Serum." (To appear in November issue.)

The President stated that an experience of five cases enabled him to confirm Dr. DeMartigny's findings as to the efficacy of this form of treatment.

Sir James Grant, of Ottawa, was especially interested in this subject, as long ago, in 1863, he had tried the influence of serum injections from vaccination vesicles with good results. He was glad to see that the field of usefulness for serum therapy was becoming wider.

Dr. Irwin, of Weston, related a case of scarlatina which had been cured by the use of antistreptococcic serum.

(16) A paper by Dr. T. Beath, of Winnipeg, on "Extreme Emaciation in Hysteria," was read by title.

(17) Dr. J. M. Elder, of Montreal, read a paper entitled "Complications and Treatment of Fracture of the Base of the Skull." (See page 753.)

Dr. Lett asked how long it was from the time the common carotid was tied until the mental symptoms occurred in the case alluded to by Dr. Elder. He thought that while the injury might cause no symptoms at the time, subsequent healing and contraction of the scar tissue might account for them.

Dr. Harrison had seen cases where there was perfect recovery without ligation of the artery, and yet a year later mental symptoms had intervened. He thought that the more probable explanation was the one already given.

The President had tied the common carotid on both sides in one case without causing any mental symptoms.

Dr. James Bell, of Montreal, thought the main point was not to fold one's hands and leave the case to nature, but to prevent sepsis. With regard to the remoter consequences, we could do nothing at all.

Dr. Elder, in reply, had alluded to the possible occurrence of mental symptoms on account of seeing the references in the literature to the liability of their being due to the tying of the artery.

(18) Dr. D. J. Gibb Wishart, of Toronto, read a paper on "Observa-

tions on Adenoids and Enlarged Tonsils and their Removal." (See page 764.)

Sir William Hingston, of Montreal, was sorry that Dr. Wishart did not confine himself to one or other of the two conditions, as remarks that apply to the one do not apply to the other. Adenoids he would operate on as soon as possible, while tonsils, he thought, were too frequently operated upon. In whole families he had seen the tonsils of one member after another enlarge and then the enlargement disappear. He was strongly against the use of a spray as a means of treating nasal disease, the nasal mucous membrane was most intolerant of it. Water irritated all mucous membranes, the eye, the bladder, etc. In operating he preferred to use an anæsthetic, and thought chloroform was the best, and no more dangerous than any other.

(19) Dr. J. Hunter, of Toronto, read a paper on "Tuberculosis and Insurance," which will appear in the November number of this Journal.

Dr. A. L. Benedict, of Buffalo, said that he had started out with the idea of heredity, but had relinquished it. Excluding accidents, diseases of infancy and of old age, one in four died of tuberculosis, and the hypothesis of heredity was untenable under such circumstances.

Sir William Hingston felt that the adoption of the theory of heredity had to a great extent paralyzed the efforts of physicians in the alleviation of disease. Cruveilhier, three quarters of a century ago, had shown by his experiments on the lower animals, that tuberculosis could be induced at will by confinement in dark and damp habitations, while that a cure resulted when they were again placed under favourable surroundings. Now at the close of the century we were getting back to the original views of Cruveilhier.

Sir James Grant agreed with Sir William Hingston on the question of heredity, and thought it was a favourable sign that now so much attention was being given to the prevention and cure of tuberculosis. He recommended a thorough system of Government inspection of schools, public conveyances, foods, etc., etc.

(20) Dr. Charles Smith, of Orangeville, read the report of a "Cyst of the Broad Ligament," describing the operation performed by himself, and pointing out the difficulties which might be met with in dealing with this class of case.

Afternoon Session, August 31st.

(21) Dr. George A. Peters, of Toronto, read the report of a case of "Implantation of the Ureters in the Rectum in a case of Exstrophy of the Bladder." It will be published in this journal later. The patient was exhibited.

Dr. James Bell, of Montreal, congratulated Dr. Peters on having achieved one of the surgical triumphs which compensated for many dis-

appointments. He thought that plastic operations for the relief of this condition at best gave very poor results, as one could not make a reservoir and the patient was forced to go through life with dribbling of urine.

(22) Dr. A. L. Benedict, of Buffalo, read a paper on "The Co-operation of Surgeon and Physician in Abdominal Cases," illustrating the necessity of co-operation by reference to several cases which had come under his notice.

(23) Dr. J. F. W. Ross, of Toronto, in a paper on "Gall-Bladder Surgery," presented the results of his work in this field of surgery, describing the methods of operation which he thought most suited for the various conditions met with. A small-sized Murphy's button made especially for anastomosis between the gall-bladder and the intestine was shown. The paper was discussed by Dr. Holmes, of Chatham, and Dr. James Bell, of Montreal.

(24) Dr. W. B. Jones, of Rochester, read a paper entitled "Anæsthesia by Chloroform and Ether," going over the well known arguments in favour of each. The speaker held that the anæsthetic used should be selected according to the nature of the case.

(25) The Address in Surgery was delivered by Dr. W. B. Coley, of New York, the subject being "The Radical Cure of Hernia." (See page 682 of the September number of this Journal.)

A vote of thanks was tendered to Dr. Coley for his very able address.

Morning Session, Friday, September 1st.

(26) Dr. A. R. Robinson, of New York, made "Some observations on the Treatment of Cancer," contending that arsenious acid had a selective action in destroying the cells of cancer when used locally as an escharotic. Diagrams were exhibited to show the advantage of this method over the knife, the argument being that in order to remove all the infected tissue the operator would have to remove a large area of apparently sound tissue while the selective action of the arsenious acid was exerted upon the outlying cancer cells without destroying the healthy tissues.

Dr. F. J. Shepherd, of Montreal, agreed that there were certain instances in which removal by the knife was impracticable, and in these regions, such as the face and scalp, the use of escharotics was admissable. A great many of the escharotics that were recommended were useless, and if arsenious acid had the selective action claimed for it by Dr. Robinson, it was the proper one to resort to.

(27) Dr. T. G. Roddick, M.P., of Montreal, introduced the discussion on "Dominion Registration" by explaining the scheme proposed by him, and already described in the May number of this Journal.

Dr. Williams, of Ingersol, Ontario, moved, seconded by Dr. McNeill, of Stanley Bridge, P.E.I., that :—

Whereas, the standards of education for the profession of medicine and surgery, and the qualifications for the practice of the profession vary in each of the Provinces of Canada, and the assimilation of these standards, and, if practicable, the establishment of uniform standards throughout the Dominion, are desirable :

And whereas, in consequence of the provisions of the Acts of the United Kingdom of Great Britain and Ireland, known as the "The Medical Acts," medical and surgical practitioners who are by the law of a Province of Canada entitled to practice their profession in such province, cannot obtain the benefits of registration under the said Act, inasmuch as by the said provisions the qualifications required for such registration must be regulated by the Parliament of Canada :

And whereas, a medical and surgical practitioner, duly registered according to the law of one province of Canada, cannot legally practice in another province without being duly registered in such other province ;

And whereas, serious practical inconveniences both to the public and to the medical and surgical practitioners have arisen from the above cause :

And whereas, it is desirable to assimilate, and, if possible, to unify the various standards of qualification established by the several Provinces of Canada as conditions of admission to the study of the profession and to the practice thereof, such assimilation and unification being best attained by the establishment of one central authority with power to hold examinations of, and to establish and maintain a system of medical registration of, such persons as desire to practice the profession in more than one province of Canada :

And whereas, it is not within the legislative jurisdiction of the provinces of Canada to establish such central authority, the jurisdiction of each Province being restricted to the limits of the province and to provincial objects only :

And whereas, it is expedient to constitute a corporation in which the legislatures of the various provinces may, if they see fit so to do, vest such powers as are necessary to effect the above purposes, and the other purposes mentioned in this Act :

And whereas, the appointment of such an authority is for the general benefit of Canada, and would promote the advancement of medicine and surgery throughout the Dominion of Canada :

Therefore resolved, that this Association hereby approve of the proposed scheme which the Committee has formulated and presented at this meeting ; and

Further resolved, that Dr. Roddick be empowered and requested to continue his efforts to have the scheme completed and carried into effect by such legislation as may be found necessary.

Speeches were made in favour of the resolution by Sir James Grant

and Drs. Powell, Lafferty, and others, and the resolution on being put to vote was carried unanimously.

The report of the Nominating Committee was, at the request of many of the members who were leaving during the day, presented at this session instead of at the last session of the meeting. The report was adopted, with the exception of the substitution of the name of Dr. F. N. G. Starr as Secretary for that of the gentleman proposed by the nominating committee, on motion of Dr. McNeill, seconded by Dr. Chown.

President—R. W. Powell, Ottawa.
Vice-Presidents—Dr. S. R. Powell, Prince Edward Island.
Nova Scotia—Dr. W. J. Putnam.
Ontario—Dr. A. J. Johnson.
New Brunswick—Dr. Myers.
Quebec—Dr. A. Marsolais.
Manitoba—Dr. W. J. Neilson.
North West Territories—Dr. Hugh Bayne.
British Columbia—Dr. O. M. Jones.
Local Secretaries—Drs. H. D. Johnson, P.E.I.; G. H. Campbell, N.S.; G. H. Body, N.B.; J. A. Hutchison, Que.; W. H. Klock, Ont.; M. M. Layman, N.W.T.; Dr. McGuigan, British Columbia.
Treasurer—Dr. H. B. Small, Ottawa.
General Secretary—Dr. F. N. G. Starr, Toronto.

Evening Session, Friday, September 1st.

Dr. Thorburn presented the report of the Committee on Inebriates. It will be published later.

(28) The papers of Dr. Jas. Bell, of Montreal, on "A Case of Diffuse Hypertrophy of the Breast," (see page 772), and (29) of Dr. F. G. Finley, of Montreal, on "Pneumothorax from Gas-Producing Bacteria," were read by title. (See page 759.)

(30) Dr. R. A. Reeve, of Toronto, read a paper entitled "Hints gathered from Three Recent Ophthalmological Congresses."

(31) Dr. A. T. Hobbs, of London, Ont., read a paper on "Surgery among the Insane," showing the many difficulties encountered which do not arise in ordinary work among the sane.

(32) Dr. W. J. Wilson, of Toronto, read a paper, "Craniectomy for Microcephalus," and exhibited a patient on whom he had performed the operation with much seeming benefit.

The following papers were taken as read:—(33) Dr. D. Campbell Meyers, of Toronto, "Notes on a Case of Jacksonian Epilepsy;" (34) Dr. W. B. Thistle, of Toronto, "A Case of Morbus Cœruleus appearing at thirty-four and unassociated with any abnormal condition of the heart;" (35) Dr. F. Leonard Vaux, of Ottawa, "The Internal Staff of

Modern Hospitals, a comparison of the Canadian and American Systems ;" (36) Dr. A. Primrose, "A Note on Tuberculosis of the Cranial Bones." The latter will be published in this Journal.

The following resolutions were passed :—

(1) "That this Association wishes to place on record its high appreciation of the efforts of Dr. Roddick to bring about a General Medical Registration Act which will be applicable to the whole Dominion, and to express its deep gratitude and obligation to him for his untiring and unselfish zeal in bringing the matter to its present stage, and to express the hope that he will be able to secure the passage of an Act of the Federal Parliament at its next session which will be acceptable to all the Provinces."

(2) "That whereas, tuberculosis in cattle is disseminated by contact and infection from beast to beast ; and whereas, such bovine tuberculosis is prevalent to a very notable extent in other countries :

"Resolved, that the Canadian Medical Association is prepared to cordially support the Minister of Agriculture and the Dominion Government in all steps taken to secure a rigorous quarantine of all cattle entering the country both from across the sea and from over the border ; and further, believing that the disease is eradicable, humbly begs the Government to take steps to rid the country of this disease, believing that if this be accomplished, incalculable benefit will accrue to the great agricultural industries of this country and to the health of the Canadian people."

(3) "That in view of the generally expressed belief of the medical profession and of members of this Association that bovine tuberculosis is directly concerned in the dissemination of tuberculosis in man, and recognizing the practical character of the several scientific and sanitary measures to-day available for limiting the prevalence of the disease in cattle : the Canadian Medical Association does hereby urge that the Federal Department of Agriculture and the Agricultural and Public Health Departments of the several Provinces confer together with a view to elaborating a scheme whereby conjoint action can be instituted, so that their several existing laws can be so harmonized so as to be made operative towards the eradication of tuberculosis in Canada."

After the adoption of the report of the Auditing Committee and the usual votes of thanks to the President, Members of the Profession in Toronto, etc., the meeting adjourned to meet in Ottawa in 1900.

THE MEDICO-PSYCHOLOGICAL SOCIETY OF QUEBEC.

A meeting took place, June 22, 1899, at the Quebec Asylum, Dr. VALLEE presiding.

Letters were read from Messrs. Hurd, Ritti and Villers conveying their grateful thanks to the Society for having elected them honorary members. Dr. Guerin, of Montreal, member of the Executive Council of the Province of Quebec, was elected an honorary member.

Dr. Villers presented to the Society the following works: A. Un cas d'atrophie musculaire progressive du type de Duchenne-Aran; B. Le délire de persécution; C. Pathogénie et pronostic du délirium tremens; D. Contribution à l'emploi du Trional; E. Quelques considérations sur le choix de l'emplacement d'un sanatarium.

Report on the election of members.

Election of Officers for 1899-1900.

Dr. Burgess was elected President.

Dr. Villeneuve, Vice-President.

Mr. Chagnon (re-elected) General Secretary.

Report of Messrs. Villeneuve and Anglin on the form of the Certificate required for the Committal of the Insane.

The Committee recommended the substitution of the following forms in place of the ones actually in use.

FORM B.

MEDICAL CERTIFICATE.

I the undersigned (1) of (2) county of , being a physician duly authorised do practice and habitually practising as such, do declare on oath, that I am not related, nor in the conditions prohibited by the law relating to lunatic asylums, to the proprietors of the (3) nor to (4) nor to (5) , that I have on the (6) at (7) county of separately from any other medical practitioner, visited and personally examined the said (8) is a lunatic and a proper person to be confined, and that I formed this opinion from the following facts, viz.:

A. Facts indicating insanity observed by myself at the time of examination, viz.: (9)

B. Facts communicated to me by others, viz.: (10)

Sworn before me at on the (Signature) (11) (Quality)

Dated at (12) on the Physician's signature. " post-office address.

(1) Insert name and Christian name of physician.
(2) Insert residence of physician.
(3) Insert name of the asylum where the patient is to be sent.
(4) Insert full name and Christian name of person asking for the patient's admission.
(5) Insert full name and Christian name of patient. In the case of a married woman insert her maiden name in full.
(6) Insert date of examination.
(7) Insert place of examination.
(8) Insert name of patient.
(9) If the same or other facts were observed previous to the time of the examination, the certifier is at liberty to subjoin them in a separate paragraph.

(10) Names and Christian names (if known) of informants to be given with their addresses.

(11) Justice of Peace or Commissioner of the Superior Court.
(12) The date is obligatory.

N.B.—The patient must be taken to the asylum within twenty days from the date of examination.

In case of idiocy or imbecility, state whether the patient is dangerous, a cause of scandal or subject to epileptic fits, and mention the facts which show that such is the case.

In cases of organic or senile dementia, state the physical condition of the patient and whether he or she is daugerous or a cause of scandal, and mention the facts which show that such is the case.

FORM C.

ANNEX TO THE MEDICAL CERTIFICATE.

Name of patient

Residence of patient County of

Information required in cases of application for admission of patient into the asylum.

Friends or relatives of patients (Sheriffs or Wardens, in case of insane prisoners) applying for admission into the Hospital, are particularly requested, with the aid of the Physician, to furnish full and explicit answers to the following questions :

1. What is the patient's age, to the best of your knowledge ?

2. Is the patient married, widowed or single ? How many children ?

3. Where do these children live ?

4. Where was the patient born ?

5. Are the patient's parents still living ? Where do they live ? What is their name ?

6. In what municipality was the patient when sent to the Hospital.

7. How long has the patient resided in Canada ?

8. What has been the patient's occupation or trade ? If a female or a child that of her husband or father ?

9. What are the patient's apparent means of subsistence, as well as those who are obliged by law to support ?

10. What is the patient's religion ?

11. Had the patient a common school or higher education ?

12. Is this the first attack of insanity ? If not, when did others occur, and what was their duration ?

13. When did the symptoms of this attack manifest themselves ?

14. What are the earliest symptoms of the disease ?

15. On what subjects, or in what way, is insanity now manifested ?

16. Is there any hallucination of hearing, sight, taste, touch or general sense ?

17. Has the patient shown any disposition to injure others or committed any act of violence?

18. Has suicide ever been attempted? If so, in what way? Is the propensity now active?

19. What are the patient's habits as to eating, sleeping or cleanliness? Is there a disposition to filthy habits, destruction of clothing, breaking glass, furniture, incendiarism, etc.?

20. Has or had the patient insane relatives (including grand-parents and cousins) or relatives afflicted with other nervous diseases such as epilepsy, hysteria, tic, eccentricity, neuralgia, chorea, alcoholism? If so, state whether paternal or maternal?

21. State the patient's habits as to use of liquor, opium, tobacco or other narcotic in any form, etc., etc.

22. Has the patient been subject to any bodily disease? To epilepsy, suppressed eruption, discharges of sores, or ever had any injury of the head?

23 What is the patient's bodily condition? State if afflicted with any infirmity or disease in addition to insanity.

24. What is the supposed cause of the patient's insanity?

25. If the patient has ever been an inmate of an institution for the insane, state how often, when and where.

26. Give name and full post-office address of the nearest relative or guardian, or friend, with whom correspondence may be conducted when necessary.

Dated at 1

All of the above answers are true to the best of my knowledge.

Sworn before me at this 1 } (Physician's Signature.) M.D.

Signature

Quality

(Justice of the peace or commissioner of the Superior Court.)

N.B.—In the case of a public patient, Forms B. and C. must be signed by the same physician, only one medical certificate being required.

In the case of a private patient, one physician must sign Forms B. and C. and another physician sign Form B. only, two medical certificates being required.

The Society adopted this report and decided to send a copy of it to the Administration, respectfully asking them to have it put in force.

Remarks on a Case of Morphinism Associated with Theft.

Dr. GEO. VILLENEUVE read a report of this case. (See page 784.)

Mal Perforant Buccal.

Mr. CHAGNON, read the following report: I have the honour to lay before you the case of an affection, described by M. Raoul Beaudet, under the name of "Mal Perforant Buccal" (*Thesis of Paris 1898*). This malady, of more or less rapid development, is characterised by the loosening and falling out of the teeth, by alveolar absorption and gingival ulceration, by the perforation, and, at times, necrosis, of the maxillary bone. Mr. Beaudet reports seven cases of perforation, three of which came under his personal knowledge. Since then, M. Letulle has pub-

lished in the *Presse Médicale* of April 2nd, 1898, another case of this singular affection. I will furnish you with a few details of the history of the case that came under my observation.

O. G., 44 years of age, about ten years ago contracted syphilis and was treated more or less regularly. Two years later he got married and had healthy children. He did not use alcoholic liquors to excess. In June, 1895, he was admitted to St. Jean de Dieu Asylum, suffering from intense maniacal excitement, which was treated by confining him to bed. At the end of two months the excitement disappeared and the physical and psychical symptoms of general paralysis, until then hidden by his state of excitement, commenced to clearly show themselves ; embarrassment of speech, fibrillary twitchings of the tongue, ideas of greatness and wealth, and to crown all, a state of dementia was present.

The disease followed its course without any remarkable incidents, until about September, 1897. At this date, my attention was called to the state of his dental system, and on examination, I found that the two incisors, the canine, the two pre-molars and the first molar of the left upper maxillary were very loose, and I could easily pick them out. All the teeth were absolutely sound. The ulceration, following the loss of the teeth, and which affected the surface of the alveola, did not heal. About the middle of September, a sequestrum, which I submit for your examination, became detached. As you can see, the work of alveolar resorption is not yet much advanced. The palate roof, forming the anterior border of the maxillary sinus, also forms part of the sequestrum, and thus there was a large aperture of communication between the sinus and the buccal cavity. Two months later the ulceration was cicatrized.

Present condition.—In the inferior jaw all the teeth are sound, and there are none wanting. The two pre-molars and the right canine of the upper jaw are decayed, the second and third left molars, as well as the first right molar, are loose, but perfectly sound. There exists no alveolar pyorrhœa, neither does any trace of ulceration appear, except a small opening, which would not admit the probe.

It was impossible to inquire into his sensibility owing to the profound state of dementia which rendered him incapable of understanding the questions put to him. His physical condition is still good. He is only troubled with weakness of the limbs.

I would draw you attention to the rapid evolution of the affection, the sequestrum becoming detached less than two months after the falling out of the teeth ; this would explain the rather slow degree of alveolar absorption. But, on the other hand, the disease continues its course without doubt, as evidenced by the fact that the second and third left molars and the first right molars are actually loose. I believe it would be interesting to follow the successive stages of this affection.

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THE TORONTO MEETING OF THE CANADIAN MEDICAL ASSOCIATION.

The Thirty-second Annual Meeting of the Canadian Medical Association at Toronto was memorable both by the large number in attendance—a number far in excess of that of previous meetings—but also most especially by the definite and unanimous pronouncement of those present in favor of the suggested scheme for Dominion Registration. The hard and disinterested labors of our colleague, Dr. Roddick, through these last years, his anxious attempts to fuse together all interests and to remove all possible grounds of dissent, have at last borne good fruit, and we appreciate and join heartily with the resolution passed at the concluding meeting : "That this Association wishes to place on record its high appreciation of the effort of Dr. Roddick to bring about a general medical registration act which will be applicable to the whole Dominion, and to express our deep gratitude and obligation to him for his untiring and unselfish zeal in bringing the matter to its present stage." With the whole profession united, there should be no obstruction to the passage of an Act by the next session of the Federal Parliament, and, at length, practically all the inconveniences, hardships and the most serious objections in the present condition of affairs would seem about to be removed. In every respect the scheme of Dominion Registration proposed, promises to work for the advancement of medicine and surgery throughout the Dominion.

The one live topic interesting our profession throughout the world at the present moment, formed, almost naturally, a prominent subject of discussion at the Meeting : we need scarce say that we refer to Tuberculosis. The questions of inheritance and non-inheritance of the disease and its bearing upon insurance, brought up by Dr. Hunter ; of sanitarium treatment and its results, introduced by Dr. J. H. Elliot ; of the best methods of dealing with consumptive poor, introduced by Dr. E. J.

Barrick ; and of bovine tuberculosis and its eradication, brought forward by Professor Adami, all, by the discussion they excited, showed the strong and keen interest of the profession here in the importance of the subject, and of the three general resolutions passed by the meeting besides that upon Dominion Registration, two bore upon this subject, and will, we trust, strengthen the hands of both the Federal and the Provincial Governments in dealing with this disease.

To the Presidential address and the addresses of Dr. Fotheringham in medicine and Dr. W. B. Coley, of New York, in surgery, and their excellence, we need not here refer, for our readers have studied them in full in our preceding number.

Dr. Geo. Gould, of Philadelphia, and Dr. A. R. Robinson, of New York, materially added to the value of the meeting by their papers upon the treatment of Glaucoma and of Cancer respectively. Nor were any of the other papers delivered by members of the Association one whit behind, rather they were in advance, of those delivered at previous meetings. We wish, however, that the crowded state of the programme had permitted of animated discussion and greater interest being evidenced in connection with the various topics brought forward.

Upon this, as upon previous occasions, our Toronto *confrères* have made the meeting of the Association coincide with the great annual exhibition in their city. We are inclined to question whether this is a wise policy ; the matter we own is debatable. Undoubtedly the added attraction of the Fair brings into Toronto a large number of practitioners from all over Ontario, men who might not attend were the meeting the sole event, and thereby certainly the number registering is materially increased ; but at the same time the attendance at the meetings becomes very irregular. Now frankly, we must admit that the main benefit to be obtained from this and kindred medical meetings, is not gained from the hearing of papers—those papers can be better read and studied when they appear in the journals afterwards ; only when there are provided debates upon live topics, upon matters of general medical politics, is it absolutely essential that there should be full attendance at the sessions. Again, we might add, in addition, when distinguished strangers have been invited from a distance, to address the society, then as a matter of courtesy the attendance should be large. The main benefit lies in the meeting of old friends, the making of new ones, the pleasant intercourse of the members, and in private rather than public interchange of ideas.

While admitting all this, it has also to be acknowledged that if the attendance be scanty, there is a depressing effect upon the readers of the papers, and unless papers were read there would be no concrete reason for summoning a meeting. Thus, while admitting that it is somewhat of a task upon the individual hearer to ask him to attend regularly at

the sessions, for the success of the meeting regular attendance is advisable.

This, however, is not the main objection to holding the meeting during Exhibition week. A far more serious objection is, that naturally, when the meeting is held in any big city, one of its main attractions is the opportunity afforded to those from outside to meet intimately, to listen and to gain instruction from, the leading men in that city, and to see their methods of work. In fact, to make a meeting a thorough success, the leaders in any city in which such meetings are held should put themselves out in order to ensure such success in every way, both professionally and socially.

Now, to hold a meeting during the exhibition week is a serious hindrance to the fulfilment of such duties, for during this week, not only do practitioners come to Toronto, but laymen from all over the district take advantage of the cheap fares with the added attractions of the exhibition, to come into the city to consult the heads of the profession. Indeed, it is well known that one deservedly popular consultant and specialist, whom all in Canada esteem, lives virtually in a state of siege during fair week. Patients collect hours before his office opens and, not to lose an opportunity of seeing him, camp out in the surrounding streets, taking their meals *al fresco*, and of not a few others the same is true to but a little less extent. The consequence of this is that those with whom visitors are most anxious to come into contact, with a few rare exceptions among the most devoted and public spirited, are conspicuous by their hurried and flash-like presence. This ought not to be. A meeting in which the leading practitioners do not take an active part professionally and socially, cannot be regarded as wholly successful.

Nor, again, (though this is a minor point), is it a wise policy to place or put down for reading, at the very first session, the papers of members who come from the greatest distance, although we presume papers are arranged on the programme in the order in which notice of them is received by the secretary. We may here again be mistaken, for as a matter of fact the attendance at Toronto at the very first meeting was excellent. Yet we are inclined to think that as a matter of principle, those coming from the greatest distance—those who have, as a consequence, been put to the greatest trouble—should have their papers delivered at sessions at which there is the greatest probability of a good attendance.

We trust that in making these remarks, no offence will be taken, for over and above all, our feeling is, and we hope we have shown it, one of pleasure that the meeting was so good. It marked an advance in many respects. At the same time, we are so anxious to see the annual meetings of the Canadian Medical Association become more and more popular,

and we so thoroughly believe that the Association can be of prime service to our community, that we do not hesitate to point out wherein the meetings can be made of yet higher value.

ON METROPOLITAN PROVINCIALISM AND EUROPEAN MEDICAL SCHOOLS.

Each succeeding year there return to us a certain number of our young graduates from the various Canadian medical schools, who have spent one or two "Wanderjahre" across the sea, passing from one well-known medical centre to another. It is remarkable to find the consensus of opinion expressed by these with regard to the relative advantages afforded here and there. For example, all are impressed by the wonderful amount of material of all kinds which pours into Vienna; the opportunities there afforded for seeing an extraordinary number of cases of one or other malady; the difficulty of gaining much good from this wealth of material on account of its very wealth, there being too little time to study thoroughly individual cases and, as a consequence, the difficulty of gaining full advantage from one's stay there, unless indeed one places himself in the hands of some Privat-Docent who is in general a Jew, bright, and an excellent teacher, but who undoubtedly is stimulated by the fee of quite respectable proportions, which he demands in order to insure his full attention.

In Berlin, we learn, material is not so abundant; the lectures given by the chiefs of the various clinics are, if possible, of a yet higher order of excellence than those in Vienna; but the system of paid private tuition has not developed to the same extent; and, again, owing to the vast number of students, the foreigner has not the like opportunity of gaining benefit, however much he be prepared to make the best use of his time. While if he be so fortunate as to gain a place in one of the laboratories and there perform original work, there is,—we say it regretfully, with the facts before us,—an undoubted danger that unless he follow the example of other workers in the laboratory and keep his results religiously to himself, he may be dissuaded from pursuing his investigations, already carried to a certain point, only to discover that after a short interval, other workers in the laboratory take up that work and publish it as original without a single indication of their indebtedness.

It is at the smaller German universities that we find our graduates reaping the fullest benefit. There, students are relatively few; the professors are keenly anxious to gain something more than a local reputation; they do not feel that their position is as yet wholly established; their pride is touched by the fact that those from across the sea come to work under them; and there is, in general, a remarkable willingness to aid Canadian or American students in every possible way. Men

appreciate and remember Prague, Göttingen, Freiburg and Wurzburg more highly than they do Vienna or Berlin.

With regard to Paris, it is difficult to arrive at any definite conclusion. As in private duty bound, our French Canadian students regard Paris as their Mecca, there is for them no school but one school. Doubtless those who stay there for some little period and who obtain appointments in the hospitals (more especially in connection with specialties in medicine), return to us remarkably well posted in one or other branch, or it may be, in several branches of professional knowledge. But it must equally be acknowledged that a large number of those who perform the pilgrimage, whether as a consequence of natural incapacity to profit by the opportunity, or from appreciation of the advantages other than medical which Paris affords, return little better qualified than they were before they left, or at the least, do not subsequently manifest any superior ability. Too few of our English-speaking students seek Paris for us, through them, to make any statement with regard to the school which forty, or twenty years ago was the great medical centre. This, it seems to us, is a pity, for while, judging from an inspection of the Paris hospitals and operating rooms, French surgery is far behind that of the American and German centres, there has undoubtedly of late years been a renaissance in many branches. In nervous diseases, now as when Charcot was at the height of his fame, Paris affords wonderful clinical opportunity, while in pathological anatomy of the nervous system, we doubt if there be any higher authorities than Marie and his associates. So also in such specialties as rhinology, ophthalmology and otology, not a little is to be learned form the French clinical methods, while in bacteriology, the course given by Roux at the Institut Pasteur is, we learn, much superior to any course in Germany or elsewhere upon the continent.

It is, however, when we come to enquire from our returned graduates their impression concerning London, that we meet with the most remarkable unanimity of impression. As Paris is the Mecca of the French speaking, so should London be the Mecca of the English speaking Canadian. Naturally, all gravitate there first, but few, sadly few, remain. It is not that they are not anxious to do so, not that they are incapable of gaining benefit, not that they would not prefer to remain for months gaining an increased knowledge at the feet of the great physicians and surgeons whose names have become household words to them. But they are forced to leave unless they are willing to waste their time, or unless they are wishful to revert for a season to the position of the undergraduate and take up such subjects as anatomy and physiology for the conjoint examination of the Royal Colleges.

To this broad statement there are, so far as we know, two exceptions :—the ophthalmological material at Moorfields is magnificent, and there

Canadian students receive a hearty welcome and find the staff, one and all, most anxious to teach and to yield all the aid and all the particulars possible. In this respect Moorfields has for long years stood out in Canadian estimation head and shoulders above the other hospitals in London. Next in repute comes the Great Ormond Street Hospital for Children. At one period St. Thomas' Hospital enjoyed a like popularity and not a few of the leading physicians in this city and elsewhere in Canada have owed to Murchison more than they can well declare. But Murchison is long dead and, since then, no single man has arisen either at St. Thomas' or elsewhere in London to take his particular place.

Canadians may go to London willing to pass from hospital to hospital, prepared to spend their days journeying from one end to the other of the great city, now putting in a morning at Guy's, now rushing across to St. George's, now to Bart's and now to Great Ormond Street or Queen's Square. But even if the inevitable waste of time consumed in these journeys does not deter them, they very soon find that the graduate visitor to a clinic or a lecture or an out-patient room, is regarded as "de trop" and what is more,—and more astonishing,—that the teaching is with some few rare exceptions, somewhat perfunctory and not of the best, nor as fresh and up to date as that obtainable even in Toronto or Montreal.

For, to come to the root of the matter, it is undoubtedly the fact that London of all the great cities of the world is the most provincial in matters medical. Each great hospital is a separate entity bound up in itself and its own traditions. From the moment a student enters Bart's, Guy's or St. Thomas' he undergoes sure saturation with the belief that there is no other hospital equal to it,—that the opinions afforded by its teachers are the only correct opinions,—that the traditional and peculiar method of performing this or that operation or of treating this or that disease, is the only proper method, and, as the members of the staff are in the main part drawn from those who have been students of the hospital, and have spent no time in other schools at home or abroad, it follows that the inevitable tendency is for teachers, in their methods and in their teaching, to become hidebound in antiquity and conservatism, save when, in some one or other direction, the innate power of the man raises him above his environment.

And the pity of it is that those teachers and members of the staff are originally some of the most brilliant of British youth. The natural capacity and the education necessary for a man to obtain a leading position in London must be singularly high. But, in general, as we state, from their training, those who become teachers are too satisfied with the position and the traditions of their respective schools to be willing to agree to absorb and to deliver to their students the advances made in diagnosis and treatment, either at rival hospitals or in the world at

large. What is more, save for a rare Horsley, the ordinary London physician or surgeon on a staff stands aghast at the idea of spending from three to six months every few years studying and examining the methods pursued in other medical centres. It may not be that he consider it a little beneath his dignity to place himself in a position of a learner under colleagues elsewhere, but he has the firm belief that were he to leave London for more than three or four weeks at a time, his practice would be irretrievably ruined. Thus it comes to pass that an American or Canadian physician, not endowed it may be with the same natural capacity, not possessing the same amount of clinical or consultant material as a basis, nor again having had the same thorough preliminary education, from his receptivity and his willingness to spend long months abroad every other year or so, seeing all that is new and good, may really and truly become a better and more capable teacher than the members of a London hospital staff.

It is this same conservatism and the complete satisfaction that a Bart's man, for example, has in devoting himself only to Bart's men, that makes him ungracious to foreign and colonial students, or if not ungracious, at least careless of affording them any advantages. It is this same conservatism which has rendered the London Post-Graduate Course a relative failure. While some, we learn, have delivered lectures of the highest order there, a large number of the lectures have been indifferent, not only in the matter but in the manner of the lecturers, whose hearts have been more in hospital work, so much so that they have not greatly cared to exert themselves for and to make an impression upon those coming from outside.

Lastly, and notoriously, no opportunity is given in London for a man to take up advanced clinical work or research in the hospital wards. We were talking recently to one of the greatest living London physicians, a man whose published writings are remarkable for mastery of his subject and for depth of thought, one who, further, is regarded justly as a great teacher, and, knowing the valuable material contained in his wards and the utter impossibility that he in his active life could either personally study and record, or cause his resident physicians with the amount of work on their hands to study and record his cases, we asked him why he did not incite young graduates, whether settled in London or coming from abroad, to work under his direction,—why, in short, he, with his splendid opportunities, did not attempt to establish, in his hospital, a school of advanced clinical research. The idea seemed absolutely novel to him. Evidently he had never considered such a possibility. His immediate answer was that it would be impossible for him to do any such thing; that he doubted whether the hospital would permit it, because neither in that nor in any other hospital had such a

thing ever been attempted. In short, the idea was, to our surprise, considered altogether too revolutionary.

To repeat, it is this narrow spirit of conservatism which repels our students from studying in London. If the new central school which is now contemplated is to be a success, it can only be this by so arranging that positions in connection therewith are held to be more honourable than those in connection with any hospital medical school, however noble its traditions or however great its name. Otherwise the work performed will be perfunctory and the scheme will prove a failure.

Something that will fuse the teaching staffs of the various hospitals is a crying need in London, for it is only by removing this provincialism that London can take its right place at the forefront in the diffusion of medical knowledge. So great is its wealth in material, that we outsiders of the Empire have a right to demand that it rise equal to its great opportunities.