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THE INSANE IN CANADA.

PRESIDENTIAL ADDRESS: AMERICAN MEDICO-PSYCHOLOGICAL ASSOCIATION, SAN ANTÒNIO, TEXAS, APRIL 18TH, 1905.

BY

T. J. W. BURGESS, M.D., Montreal.

Gentlemen:—

My first duty is to reiterate my thanks to you for having called me to this chair, a distinction I can attribute only to the fact, that in honouring me you sought to honour, not me alone but the Canadian members of the Association. "No man is born without ambitious worldly desires," says Carlyle, and surely there could not be a more laudable ambition than to become the President of this the oldest of American Medical Associations, a position of which Dr. John S. Butler said, on his elevation thereto, in 1870, "In my opinion, to be elected President of this Association, is the highest honour of the profession." Rarely, however, does gratified ambition bring peace of mind, and I, alas, have been no exception to the general rule. The thought of occupying a position that had been held by such intellectual giants as Woodward, Bell, Ray, Kirkbride, Butler and Earle, all members of the "glorious original thirteen," beside many other illustrious men, abashed me—made me fully conscious of my inability to fill it properly. Nor did the sense of my demerit lessen as the days rolled by. On the contrary, the long list of presidents, whose names are familiar to us because of their attainments in psychological medicine, loomed continually before my eyes, added to which the task of to-day's address haunted me like an ever-lengthening shadow. I had but one thought to reconcile me to the greatness your generosity had thrust upon me. It was that the kindness which prompted you to elect me as your president would be extended so far as to induce you to overlook my shortcomings, and that if, in the matter of the address, I could not like my predecessors in office clothe my thoughts in

"Choice word and measured phrase, above the reach of ordinary men,"

you would at least take the kindly will for the imperfect deed.

In my search for a topic upon which to discourse, I fully verified the words of Terence "Nullum est jam dictum quod non dictum sit prius." Everywhere I found the fields of medico-psychology so well harvested by my forebears that there was apparently nothing left for even a gleaner. Nevertheless a subject had to be selected, and I finally concluded that, as the oldest medical officer connected with the insane asylums of Canada, in point of length of service, I could not do better than tell you something about the development of our Canadian asylum system, the status of the insane in our Dominion, and what, in my estimation, are some of our most crying needs for the betterment of those so justly styled "the most unfortunate of all God's afflicted ones."

EVOLUTION OF THE CANADIAN ASYLUM SYSTEM.

Of the number or condition of the insane in Canada under the French regime, that is prior to its accession to England in 1763, I have been able to learn little or nothing. Doubtless their treatment differed in nowise from the cruelty shown them in all other countries at the same period. That they were not totally neglected is manifested, however, by the fact that, in 1639, the Duchess d'Aiguillon, niece of Cardinal Richelieu, founded the Hotel Dieu of Quebec for the care of indigent patients, the crippled, and idiots. As here employed, the term idiot probably refers to all forms of mental disorder, acquired as well as congenital, and the creation of this establishment is especially noteworthy inasmuch as it was not only the first move toward the proper care of the insane, but was the first hospital instituted in North America. Four years later, namely in 1643, Mademoiselle Mance founded the Hotel Dieu of Montreal to meet the same requirements.

For well nigh three-quarters of a century after the establishment of British rule, the condition of the insane in the various Crown Colonies, which now make up the Dominion of Canada, was deplorable in the extreme. Each county seems to have cared for its insane as best it could by confining them in almshouses and jails. The poor lunatic did not appeal to the sympathies of the public,—a workhouse was good enough for him if harmless, a prison his proper place if dangerous. The thought that he might be cured, and that no effort should be spared to cure him, occurred to few if any. Bereft of man's noblest attribute, the mind, lunatics were regarded as little better than brutes, and were too often treated accordingly. While falling short of the Napoleonic Code, published in 1804, which openly classed the insane with beasts, and ordered the punishment of those who allowed "the insane and mad animals to run about free," the law in Canada deemed them at least on a par with

CENTENARY CHURCH, 1839.

ST. JOHN, N.B.

The building with smoking chimney, in rear of church, was Canada's first Asylum for the Insane. Opened 14th November, 1835.

criminals. In proof of this, witness an act, in force as late as 1835. which authorized any two Justices of the Peace, without any medical certificate, "to issue a Warrant for the apprehension of a lunatic or mad person, and cause him to be kept safely locked in some secure place directed and appointed by them, and, if they deem it necessary, to be *chained*."

The first of the old British North American colonies to make special provision for its insane was New Brunswick, by the conversion, in 1835, of a small, wooden building in the city of St. John, originally erected as a cholera hospital, into an asylum for lunatics. This institution, the first of the kind in Canada, continued in operation for a little over thirteen years, under the medical supervision of Dr. George P. Peters, a native of St. John but a graduate of Edinburgh University.

Dr. Peters had no previous experience in the care of the insane, but, being energetic and deeply interested in the welfare of his charges, did exceptionally good work considering how he was handicapped. That he was in advance of his day and fully recognized the importance of special training for the proper treatment of mental diseases, a fact so often lost sight of by governments and their appointees, is evidenced by his urging, though vainly, the Legislature to get a physician from England, one trained in the best schools of psychiatry, to take charge of the new asylum. The difficulties he had to encounter were many, not the least being one that is equally common to most of us at the present day, that of finding suitable nurses. On this point he quaintly reports:—"I find it very difficult to secure proper attendants, especially for the female patients. Those who apply for the place are coarse and ignorant, their only qualification for the position being good muscular development, and absence of all proper sensibility."

The following record preserved in the Sessions of the Peace minute-book gives a good idea of the results attained by Dr. Peters during the first thirteen and a half months of his incumbency. Of the thirty-one admissions, it says, "There have been discharged—cured, six; improved, five; to friends, not improved, two; died, four. Of the remaining 14, one is much improved, two perceptibly improved and 11 without any visible improvement." Some of the details of the itemized accounts, contained in the same volume, are highly suggestive of the times and of the methods of treatment, in which blood-letting and restraint must have played a considerable part, and bathing and light been luxuries.

"W. McBay for twelve hogsheads of water (for one month), one pound, fifteen shillings.

W. Hammond for thirty pounds rush lights, tenpence per lb., one pound, five shillings.

Harvie and Allen for eight tin bleeding cups and one tin pan, seven shillings and sixpence.

D. Collins (saddler) for three hand mufflers, one pound fifteen shillings.

G. T. Ray for twelve straight waistcoats at twenty shillings each, twelve pounds."

In 1848, this temporary refuge, the pioneer Canadian asylum, was abandoned, the inmates, ninety in number, being transferred to the present institution, the erection of which had been begun two years previously.

Ontario, or, as it was then called, Upper Canada, was the next of the provinces to make a movement towards providing for its insane, the old and recently abandoned jail at York, now Toronto, having been fitted up and opened as a temporary asylum in 1841. Prior to this, numerous attempts had been made in the House of Assembly toward the organization of an asylum, the Government going so far, in 1836, as to appoint a Commission to visit the United States for the purpose of obtaining information on the subject. The Chairman of this Commission was Dr. Charles Duncombe, who afterwards, during the rebellion of 1837, became the leader of the rebels in the western part of the province, and only saved his neck from the hangman's noose, on the defeat of the movement, by making his escape, disguised as a woman, across the Detroit River into Michigan; this despite the fact that a reward of £500 had been offered for his apprehension. Dr. Duncombe's report is particularly interesting to us, because he therein gives an account of his visit to Worcester Asylum, Massachusetts, then under the superintendence of Dr. Samuel B. Woodward, who eight years later became the first President of this Association, of which he was also one of the originators. His institution was the one, of all those inspected, that best met the approval of the Commission, and the one the general plan of which they advised should be followed. In concluding his report, Dr. Duncombe thus interestingly outlines his views on the subject of lunacy and the object of the proposed structure:—"The building is not designed for the cure of the ordinary diseases of the body, but 'to restore the disjointed or debilitated faculties of a fellow creature to their natural order and offices, and to revive in him the knowledge of himself, his family and his God.' The subject of lunacy has been until of late years less perfectly understood than any other complaint known to our country

that is at this moment successfully treated, but thank Heaven that the disease of an organ of the mind is no longer considered a crime subjecting the unfortunate subject of it to imprisonment, punishment and chains, and that with the exception of this Colony no other portion of America has their insane confined in their jails, and I am well satisfied this will not be the situation of these unfortunate persons longer than until their number and present cost of support is known, and the legislature have time to provide a suitable asylum for their relief."

The make-shift asylum, into which the old jail had been converted, was placed in charge of Dr. Wm. Rees, who had long urged upon the Government the necessity for such an establishment, and continued in use up to 1850. At that date the patients were transferred to the present Toronto asylum, which, for twenty-two years after, was the field of labour of the venerable Dr. Joseph Workman, to whose wisdom much that is best in the present system of caring for the insane in Canada can be traced.

Kingston Asylum, generally known as Rockwood Hospital, was the second asylum born in the province of Ontario. It had its birthplace in the stable of the old Cartwright mansion, which, in 1856, was fitted up for the reception of twenty-four female patients. Like its successor, the present structure, opened in 1862, it was originally designed for a criminal lunatic asylum, and as such the institution remained in charge of the Federal Government, an adjunct to the Penitentiary, until 1877. In that year it was purchased by the local legislature, and became one of the ordinary provincial establishments.

London Asylum, the third Ontario asylum in point of age, was, when opened in 1859, originally located in the old military barracks at Fort Malden on the Detroit River, and formed a branch of the Toronto institution, which had become congested. In 1870, the present hospital, at London, having been completed, the patients were transferred there.

Of the other five public asylums in Ontario, that at Hamilton was originally built for an inebriate asylum, but was never used as such, being utilized instead for the reception of the insane, and opened in 1879. Mimico Asylum was first occupied in 1890, Brockville Asylum in 1894, Cobourg Asylum in 1902, and Penetanguishene Asylum in 1904. The Cobourg institution, for female chronic patients, was created by the conversion of Victoria College, the scholastic headquarters of the Methodist community prior to federation with Toronto University, into a hospital for the insane; and the Penetanguishene Asylum, which is for chronics of both sexes, was formerly a reformatory for boys.

Ontario also possesses an asylum for idiots. It is situated at Orillia,

where it had its inception, in 1876, in a building originally designed for an hotel. This structure was replaced by a new and modern establishment in 1887.

In the Province of Lower Canada, now Quebec, the Quebec Lunatic Asylum, formerly known as Beauport Asylum, is the oldest of the institutions for the insane, the progenitor of the present structure having been opened, during 1845, in the old manor-house of the Seigneur of Beauport, which stood about a mile from the present establishment. Its creation was due to Dr. James Douglas, an uncle of my immediate predecessor in this chair, Dr. Joseph Morrin and Dr. Charles J. Fremont, but it is now the property of the Sisters of Charity.

The second of the Quebec asylums, L'Hopital St. Jean de Dieu, or, as it is usually called, Longue Pointe Asylum, is situated a few miles east of Montreal, and also belongs to the Sisters of Charity. It originated in a very humble way in 1852, its capacity at that time not exceeding twenty-five patients. This being found quite inadequate to meet the ever-increasing demands upon their charity, the sisters, with the sanction of the Government, determined to take up the work of caring for the insane on a greatly enlarged scale. The result was the erection of a new St. Jean de Dieu Asylum, which was opened in 1875. This institution was completely destroyed by fire in 1890, no less than seventy-five patients and five sisters losing their lives in the conflagration. Undeterred by this disaster, the Sisters lost no time in beginning the erection of the third St. Jean de Dieu Asylum. This, the present establishment, which is fully up to date in construction and equipment, was opened in 1901.

The third Quebec institution, rightfully called the Protestant Hospital for the Insane, though generally spoken of as Verdun Hospital, was founded by a number of the charitably disposed Protestant citizens of Montreal for the relief of their co-religionists then confined in Beauport and Longue Pointe asylums. It was opened for the reception of patients in 1890.

Quebec has in addition two institutions which receive idiots as well as some aged and infirm paupers. These are L'Hospice St. Julien, located at St. Ferdinand d'Halifax and Baie St. Paul Asylum, situated at Baie St. Paul. Both belong to the Sisters of Charity, the former having been opened for the reception of idiots in 1873, the latter in 1890.

Prince Edward Island stands fourth, and Nova Scotia fifth, on the list with regard to the date of beginning special provision for the insane. The hospital of the former dates back to 1847, and of the latter to 1858, since which time Nova Scotia has increased its accommodation for the

mentally defective by the creation of a system of county asylums, and combined county asylums and poorhouses. An interesting point in connexion with the Nova Scotia Asylum is that to it pertains the honour of having had its site selected by the well-known philanthropist, Miss Dix, of whom it is said in Tuke's "Dictionary of Psychological Medicine":—"Although, in every country, men and women and the medical profession have been ready to promote the interests of the insane, the name of Dorothea L. Dix stands foremost among all. Her efforts in improving the condition of the insane were not confined to her native State of Massachusetts, but extended to other States and distant lands. Her life was devoted to their interests, and it is stated that no less than thirty asylums owe their establishment directly or indirectly to her persistent efforts."

The first Manitoba Asylum, now located at Selkirk, was originally established, in 1871, at Lower Fort Garry, in connexion with the penitentiary, one of the old stone storehouses of the Hudson's Bay Company, formerly used for the confinement of Lepine, the notorious Louis Riel's Adjutant-General, having been fitted up for the purpose. The second asylum, situated at Brandon, began work in 1891.

The year 1872 witnessed the birth of the British Columbia institution, when an ancient wooden building on the Songhees Indian Reserve, outside the city of Victoria, originally built for a small-pox hospital, was re-opened to receive lunatics. The population having outgrown these primitive quarters, it was decided to erect a new asylum on the mainland, close to the town of New Westminster. This was done and the patients removed thereto in 1878.

Of the superintendents connected with the bygone struggles of these beneficent institutions much might be said, but the limited time at my disposal forbids the eulogiums they so justly deserve, even were my pen equal to the task. No words of mine could do justice to such men as Dr. Workman, easily *primus inter pares*, and fittingly styled by Dr. Tuke, "The Nestor of Canadian alienists"; Dr. Henry Landor, whose rare qualities of heart and mind fitted him so eminently for his position; Dr. R. M. Bucke, to whom is due the introduction of the non-restraint system into Canada; Dr. W. G. Metcalf, who by his sad and untimely death added another to the goodly list of physicians who have perished at the hands of those whom they sought to benefit; Dr. J. R. DeWolf, who was foremost in the early care and treatment of the insane in Nova Scotia; Dr. E. E. Duquet, who died worn out by his labours in striving to reform the Longue Pointe Asylum; and Dr. A. Vallée, whose advanced views did so much to improve the Quebec Asylum. The blessed results

of the labours of such men can never be fully estimated, their works being truly—

"Deeds which are harvest for Eternity."

STATUS OF THE INSANE.

At the present time Quebec is the only one of the provinces of the Dominion in which there is no state institution for the care of the insane. Though vastly improved in every respect and much more strictly supervised by the Government than when Dr. Tuke visited them, in 1884, and so graphically portrayed the then existing evils, the two largest hospitals, St. Jean de Dieu and Beauport, are still proprietary establishments, and, as such, still open to the criticism thus forcibly expressed by that distinguished alienist in his work, "The Insane in Canada and the United States." "Far be it from me to attribute to these Sisters of Charity any intentional unkindness or conscious neglect. I am willing to assume that they are actuated by good motives in undertaking the charge of the insane, that they are acute and intelligent, and that their administrative powers are highly respectable. Their farming capacities are, I have no doubt, very creditable to them. It is not this form of farming to which I have any objection or criticism to offer. In the vegetable kingdom I would allow them undisputed sway. It is the farming out of *human* beings by the Province to those or any other proprietors against which I venture to protest. . . . . It is a radical defect—a fundamental mistake—for the Province to contract with private parties or Sisters of Charity for the maintenance of lunatics. Whatever may be the provision made by private enterprise for patients whose friends can afford to pay handsomely for them, those who are poor ought to have the buildings as well as the maintenance provided for them by the Legislature. They are its wards, and the buildings in which they are placed should belong, not to private persons, but to the public authorities, with whom should rest the appointment of a resident medical officer."

No less pronounced in his condemnation of the "farming out" system is a later writer, one of the greatest authorities on all appertaining to insanity and the care of the insane, Professor Kraepelin. This world-renowned alienist says of it, in an article published some five years ago:—"It is not only unworthy of the State, but in the long run is also dangerous to entrust the care of such institutions to promoters, who are working only on their own responsibility, be they laity or clergy. The best ordinances of State supervision cannot do away with the danger which attends the transference of the insane from the care of the public officials

to that of private individuals. Even if State inspection were well carried out, which cannot be guaranteed, only the more apparent abuses could be guarded against. The management of the institution would still be carried out in accordance with the particular views and wishes of those who were in charge and, as a rule, to the disadvantage of the patients."

Following the publication of Dr. Tuke's article, the Medico-Chirurgical Society of Montreal held a meeting, at which, among others, the following resolutions were unanimously passed:—

"That the 'farming out' or 'contract' system either by private individuals or by private corporations has been everywhere practically abandoned, as being prejudicial to the best interests of the insane, and producing the minimum of cures.

"That, in the opinion of this Society, all establishments for the treatment of the insane should be owned, directed, controlled and supervised by the Government itself, without the intervention of any intermediate party."

Spite of these and other vigorous protests the system remains unchanged, and before Quebec can be counted in the foremost line, where it ought to be, the province must own as well as supervise its institution for the dependent insane.

One outcome of the furore excited was, however, the founding of the Protestant Hospital for the Insane, an incorporated charitable institution, which, while paid by the Government for the maintenance of public Protestant patients, is safeguarded by the leading clause in its charter of constitution. This stipulates that the conduct of the establishment shall be vested in a board of management elected by the governors, and that all moneys received by the corporation, from whatever source, shall be expended upon the institution and its inmates. As a matter of fact, ever since the opening of the hospital, the per capita cost of public patients therein has not been less than fifty per cent. more than the Government allowance for their keep, the difference having been made up by the revenue derived from private patients and the bequests of the charitably disposed.

The Province of Nova Scotia, though possessed of as well managed a State asylum as could be desired, is yet behindhand in that it has, since 1886, sanctioned the erection of county asylums, and, in many cases, combined county asylums and poorhouses. To these can be transferred the harmless insane from the provincial institution, and to them can be sent direct idiots, non-violent epileptics, and cases of chronic insanity

refused admittance on statutory grounds to the State asylum. At the present time there are eighteen of these structures, which, according to the Report of Public Charities for 1904, house sane adults, children, insane patients, imbeciles and epileptics. Each is governed by a committee, the immediate management being entrusted to a keeper and a matron, and there is a visiting medical officer attached. These establishments have been erected in pursuance of a plan outlined by Dr. Reid, formerly superintendent of the provincial asylum, though a Nova Scotia friend of mine, well acquainted with the system, contends that it was invented by the devil. The scheme was necessitated by the pressing need of additional room for the insane, and the financial inability of the province to undertake the erection of another public hospital. It is only fair to Dr. Reid, however, to state that this was but one of four alternative suggestions made by him, and that it was the one he considered the least desirable, although the cheapest way to provide the required accommodation.

That county care is cheaper I will not gainsay, but does it best meet the demands of humanity, which, after all, is the true standard to be adopted by any right-thinking community? That it does not seems to be the general trend of the most advanced scientific opinion, and the following resolution, adopted at the sixth meeting of this Association, held at Philadelphia in 1851, still holds good.

"Resolved: that it is the duty of the community to provide and suitably care for all classes of the insane, and that in order to secure their greatest good and highest welfare, it is indisputable that institutions for their exclusive care and treatment, having a resident medical superintendent, should be provided, and that it is improper, except from extreme necessity, as a temporary arrangement, to confine insane persons in county poorhouses or other institutions, with those afflicted with or treated for other diseases or confined for misdemeanors."

Not a few of the chronic insane are as difficult to manage as the acute, and such being the case, it is hard to imagine any system of county care where abuses will not creep in as a result of the desire to lessen the per capita cost and the absence of constant medical supervision. As practised in the State of Wisconsin, it seems to be as well conducted as it is possible for such a system to be, and yet Dr. Burr, our worthy Vice-President, who is a just and honest man as well as a careful observer, after a personal inspection of the system there, published, in the October, 1898, number of the *American Journal of Insanity*, a scathing denunciation of its inefficiency.

Many of the worst horrors connected with the treatment of the insane during the last half century were consummated within the walls of county almshouses. In New York, where the practice of transferring cases who failed to recover in a certain time from the Utica Asylum to the county poorhouses was in vogue for nearly thirty years, and where the county asylum system flourished for over eighteen years, the abuses which seem to be inseparable from almshouse and county arrangement so aroused public opinion that both methods were abolished. By the passage of the State Care Act of 1890, an act which affirms that the dependent insane are the wards of the State, and that their interests and maintenance should be confined exclusively to the State, New York justly earned the proud encomium that, "The leading chapter in the (past) century's history of the care and treatment of the insane in America will be the humane and progressive record of the Empire State."

The State of New Hampshire has also lately recognized the injustice of this method of caring for the insane, and, in 1903, passed an act abolishing county care, and providing for the removal of all lunatics confined in county almshouses to the State hospitals within a period of six years.

That those connected with and so best qualified to judge of the working of the Nova Scotia system are not themselves enamoured with it may be judged from the 1903 Report of Public Charities. Therein, the Inspector, Dr. George L. Sinclair, an alienist of repute and a former superintendent of the Provincial Hospital, says:—

"The plan of county care adopted in this province has many grave objections. In a properly equipped and well-officered local asylum, reserved for the exclusive use of insane or imbecile inmates, the objectionable features are fewest. The scheme of associating in one house both sane and insane persons is the most objectionable and unsatisfactory.

"Unfortunately our law permits this to be done, provided the building is made suitable for both classes and for both purposes to the satisfaction of the Governor-in-Council. The difficulties to be overcome to make such a plan of care unobjectionable pertain quite as much to the structure of the municipal mind as to that of the building.

"It is most unfair to the sane members of such a household, whose only affliction is poverty, to compel them to associate with the insane and imbeciles, who are not only irresponsible, but may be a source of positive danger to their companions in misfortune, and it is distinctly unjust to the insane inmates to attempt to care for them with the limited oversight and attention which the small staff of an almshouse can give.

"I have yet to find a single keeper or matron of an asylum to which the mental defectives are sent to associate with the paupers, whose experience in looking after the two classes is sufficient to give the opinion any value, who does not think the mixing of the two kinds of inmates most undesirable. When it is done there is either a dangerous amount of liberty granted the defectives or they are isolated and secluded to an extent that means positive neglect, and leads to distinct deterioration and the formation of bad habits. It cannot be otherwise. The staff of an ordinary almshouse usually consists of a keeper and a matron. The former has charge of the farm and the latter of the house-keeping. When at his work the keeper must either take the insane men with him or leave them at home. The first is often impracticable, and the second unsafe unless the patient is locked up. This more or less frequent seclusion always has an evil effect in causing the insane person to fall into bad habits. Sometimes most objectionable and severe mechanical restraints are used, and nothing but harm results."

In the Province of New Brunswick it is much to be regretted that the Government, on account of the overcrowded condition of the provincial hospital, is contemplating a resort to the Nova Scotia system. At the last session of Parliament legislation was passed providing for the examination of all patients therein by a Commission composed of the medical superintendent and two other doctors. When the work of the Commission, which began its labours in November last, is completed, a report is to be made to the Government with a view to the selection of those who, being supposed to be harmless, can be sent back to their friends or to the county almshouses. To carry out such retrograde legislation will be to sully the record of a province which has heretofore always steadfastly declared against the incarceration of lunatics, even temporarily, in prisons or poorhouses—a province which can boast with pride of having been the first of the British North American colonies to provide special accommodation for its dependent insane.

At present, in New Brunswick, perhaps the gravest existing defect in connexion with the insane is the method, or rather lack of method, of commitment to the provincial hospital. The safeguarding of the liberty of the subject seems to be little heeded, and a patient can be conveyed to it with only a line from a doctor. No thought is given to advising the hospital authorities beforehand that a patient is coming, and often no history whatever of the case is furnished. The medical superintendent, however, informs me that this matter is to be remedied at once, and that the present year will see the manner of commitment more in consonance with the modes adopted in other civilized countries.

Ontario, as the wealthiest of the Provinces, has of course been able to outstrip the others, and in its care of the insane has always endeavoured to keep up with the advance of science. Its asylums are State institutions in the fullest sense of the word. In the majority of cases the patients are maintained entirely at Government expense; in other cases, where able to do so without hardship, the friends are charged a rate that covers the bare cost of keep.

While all its hospitals are good, Rockwood is certainly the foremost, ranking to-day among the most advanced institutions for the treatment of the insane in America. Whether it be that its presiding officer has a more persuasive tongue, and so can better influence the Government, I cannot say, but assuredly it has accessories that are elsewhere lacking—to wit, a beautiful home for nurses, and several small cottages for the segregation of tubercular patients. The varieties of employment provided for the patients are there, as they should be, numerous and diversified, and physical culture classes are one of the features of the establishment. In addition, those who have a taste for music are instructed in it under a qualified teacher, and there is also a school modelled after that in the Utica Asylum. At Rockwood, too, it is worthy of record, was established Canada's first training school for asylum nurses, and the first separate building, or infirmary, on the continent, for the treatment of lunatics afflicted with additional ailments.

Prince Edward Island has a provincial hospital for its insane, but idiots and imbeciles are sheltered in the provincial poorhouse, those who become dangerous being transferred to the insane hospital.

In Manitoba and British Columbia the asylums are State institutions, and well conducted, thought at present sadly hampered by the constant and pressing necessity of providing sufficient room, owing to the mass of immigrants that has been flowing into those provinces during the last two or three years. The Manitoba hospitals receive imbeciles, but idiots are sent to the Home for Incurables, also a provincial institution, located at Portage la Prairie. British Columbia has no special provision for idiots or imbeciles. When utterly unmanageable at home they are received into the insane asylum.

The Northwest Territories having no hospitals of their own, by special arrangement with the Dominion Government, all cases of insanity occurring in those districts are cared for in the provincial asylums of Manitoba.

Number of Insane.

In 1901, according to the census of that year, there were in the Dominion of Canada 16,622 persons of unsound mind, being a ratio of

3.125 per thousand, or about one in every 319 of a population numbering 5,318,606 souls, exclusive of the unorganized territories. Of these 16,622 defectives, 10,883 were inmates of asylums or other institutions, making a percentage of .642 under care.

The Provinces as regards the number of their insane stood as follows: —Prince Edward Island, 361, a proportion of 3.496 per thousand; Ontario, 7,552, or 3.459 per thousand; New Brunswick, 1,064, or 3.213 per thousand; Quebec, 5,297, or 3,212 per thousand; Nova Scotia, 1,403, or 3.052 per thousand; Manitoba, 464, or 1.818 per thousand; British Columbia, 301, or 1.684 per thousand; Northwest Territories, 180, or 1.132 per thousand.

With respect to custodial care, British Columbia ranked first, having under care, at the close of 1901, no less than 94 per cent. of the total number of those mentally incapacitated. Manitoba came next with 77 per cent. in safe-keeping. Nova Scotia stood third with 71 per cent. sheltered. Ontario was fourth with 69 per cent. in asylums. Prince Edward Island was fifth with 61 per cent. provided for. Quebec and the Northwest Territories were equal with 58 per cent. under care, and New Brunswick was eighth with 52 per cent. housed.

The following table shows the changes indicating increased custodial care, or otherwise, on the part of the several provinces, in the decade extending from 1891 to 1901. By this it will be seen that there has been a marked advance in all with the exception of New Brunswick, which remains unchanged.

Province.	In Asylum, 1891.	In Asylum, 1901.
British Columbia	90 per cent.	94 per cent.
Manitoba	55 " "	77 " "
New Brunswick	52 " "	52 " "
Nova Scotia	36 " "	71 " "
Ontario	58 " "	69 " "
Prince Edward Island	38 " "	61 " "
Quebec	50 " "	58 " "
Northwest Territories (Housed in Manitoba Asylums)	..	58 " "
Canada	54 per cent.	66 per cent.

Increase of Insanity.

Spite of the provision made for the care of the insane, from every province comes the cry for additional accommodation. Year by year

the number of lunatics, imbeciles and idiots to be supported and cared for by the State is being largely augmented, and it has become a burning question whether something cannot be done to lessen an evil which imposes upon the community an enormous load of taxation for the maintenance of a large and constantly increasing multitude of those mentally afflicted. Canada, in common with the rest of the civilized world, has of late years shown a decided increase in the percentage of her insane population. Of course it is easy to be led astray by statistics compared without just qualification. The very agencies created for the care of the insane lead to an apparent increase in their number. With well appointed asylums conducted on enlightened lines, aided by Government grants and private charity, hundreds of patients, who might otherwise be uncounted, leave their homes to swell the enumeration of the insane. Still, with all allowance made for this, it is the consensus of opinion that insanity is on the increase in Canada as elsewhere. That such is the case is fully borne out by the census returns, which, though lessened in validity by the fact that the figures they furnish are in great measure dependent on voluntary information, are yet in this case a fair index of the true state of affairs, because any false statements made would be in the line of lessening the number of defectives. From this source we find that while in 1891 there were 13,342 insane persons in a population of 4,719,893, in 1901 there were 16,622 in a population of 5,318,606, being an increase, in ten years, of nearly twenty-five per cent. in the number of lunatics, whereas the increase in the total population was less than thirteen per cent.

The causes of this increase are manifold. The methods of modern life and the modern race for wealth undoubtedly play an important part in it. Our high-pressure civilization does not come to us without attendant woes. With the change and increased comfort in the mode of life of the great bulk of the people, their susceptibilities have been augmented, and their nervous systems have been laid more open to the unkind influences of material and moral forces. But while these and other causes play a part in the production of mental disorder, it is a small one in comparison with that played by heredity. From time immemorial it has been recognized that the great predisposing cause of insanity is hereditary taint, and as time rolls on, and we are able to make more careful inquiry into the influence of hereditary predisposition, the truth of this old-time belief becomes more and more evident. Unfortunately we are not in a position to say exactly what amount of the mental obliquity met with is due to transmitted weakness. The statistics of heredity vary widely, and this variation is chiefly in direct ratio to the

prevarication practised by the relatives of the insane. Not one of us but is well acquainted with the way in which people, even in the lower ranks of life, endeavour by every means to keep us ignorant of what they consider to be a stigma on the family. Almost every authority on mental diseases has commented on this, one writer going so far as to compare the difficulty experienced in getting at the truth in such cases to that which might be expected in dragging from an erring woman a confession of her frailty. Why brain disease should be regarded as more disgraceful than disease of the lungs or any other organ of the body, or why the fact of insanity being in a family should be looked upon by the public as tantamount to an acknowledgment of criminality is hard for us to grasp. Such, however, is the fact, and until the masses are educated out of such erroneous beliefs, friends will continue to lie about their antecedents most unblushingly. Often I have known cases where the relatives have positively asserted that there was no trace of insanity in their family history, and often I have afterwards discovered that it had been well marked for generations. I well remember a lady, widely known for her Christian principles, coming to see me about receiving her daughter as a patient. A prognosis in the case was of importance, and I was asked to give as definite a one as possible. Naturally, I asked as to any possible hereditary taint. My lady was firmness itself in her denials. In the course of further conversation, however, she happened to mention that her brother, who had been very fond of the insane girl, was dead, and added, "Perhaps it's as well after all that he is." It struck me at once that there must be something behind this expression of opinion, and my question, "Why so, Madam?" elicited the answer, "Well, doctor, you see for over a year before my brother shot himself he was always worrying about Mary's future welfare." Needless to say, the hospital registers showed heredity as a definite predisposing factor in the case.

But it is unnecessary that I should dwell upon the question of heredity as a cause of the increase of insanity. It and the marriage question were fully and ably discussed by Dr. Blumer in his presidential address delivered at Washington two years ago. I shall but strengthen, if that be possible, what was then said by a quotation. It is from an address on the prevention of insanity given by Dr. G. F. Blandford, as President of the Psychological Section of the British Medical Association, in 1894. On that occasion Dr. Blandford stated:—"I have long been of the opinion that insanity is to be prevented chiefly by limiting the propagation of this most fearful disease through the union of affected persons. I am convinced that the only way to really diminish and finally stamp

out insanity is by so educating public opinion, that those who have been insane or are threatened with insanity shall, in the face of such public opinion, abstain from bringing into the world children who must certainly contain in them the potentiality of insanity, and so will hand on the heritage from generation to generation till the race dies out."

Instead, let me call your attention to another topic, briefly referred to by Dr. Blumer, in the line of prevention of the increase of insanity—the exclusion of defective immigrants. I do so for two reasons. Firstly, because during the past two years the influx of strangers into Canada has been so enormously increased; and secondly, because Canadian immigration laws being much less stringent than those of the United States, our land is being flooded by a class of degenerates, many of whom, if not already insane, soon become so.

That a country so vast as ours should be much more densely peopled is a "consummation devoutly to be wished," but the question of number, desirable as it may be, is secondary to the character of the people who are being added to our population. The sturdy agriculturists and artisans of the British Isles, healthy alike in body and mind, always furnish a welcome addition to our ranks, but unhappily quite a large number of the immigrants brought to us are of a low standard of mentality, some of them even having been inmates of asylums before coming to this country. Such a condition, amid new environments and under new conditions of existence, is almost sure to lead to mental strain and insanity. The result is that these incompetents, many of them consisting of the scum and dregs of an overcrowded European population, are crowding our provincial hospitals, especially those of Ontario, Manitoba and British Columbia, to which provinces immigration has been largest, and those contiguous to large seaports, such as Montreal. Most of our institutions have a larger *percentage* of foreigners than is found among the native population, and while the greater number of the foreign-born inmates are legitimately there, having broken down mentally after they had earned a residence, there is in every asylum a proportion which should never have been brought to our shores. Some of these have come of their own accord, but it is evident from the statements of the patients themselves that in certain cases parochial boards, benevolent societies, municipalities and even relatives have sent out persons simply as the cheapest way of getting rid of them. The cost of a ticket is small compared to a lifetime's maintenance in an asylum, a poorhouse, or at home. The late Dr. R. M. Bucke, in giving his evidence before a Commission appointed to inquire into this subject, thus forcibly and truthfully ex-

pressed himself:—"There are Associations formed in England for bringing out to Canada what are called gutter children from the slums of England, Scotland and Ireland. Thousands are brought out by these organizations. This is scandalous, and should not be allowed to go on. These people might as well collect small-pox and typhoid fever and send them out. It is just adding so much more to the number for which we have to provide, because so many of them are degenerates." But a few months ago it was proposed in London to form an organization for the emigration, on a gigantic scale, of British pauper babies and young children, and a meeting was convened at Mansion House under the auspices of the Lord Mayor to discuss the subject. Canadians generally and naturally object to the establishment of British workhouse farms in Canada under the control of British poor law guardians for the reception of English foundlings, and, I am thankful to say, the Canadian Government withheld its approval of the scheme.

As typical of the class of persons sent out by their friends to get rid of them, let me read you a description of a batch of these defectives who had become hospital residents and were deported to Liverpool. It is from a report of the asylum in British Columbia, where this custom has been very common, I suppose on the principle that the farther away a ne'er-do-weel is shipped the less likelihood of his return. "All these cases were illustrations of a practice too much in vogue in Great Britain, of shipping off to the colonies weak-minded young persons who are unmanageable at home, and unable to make a career for themselves, or earn a livelihood there. 'He has continued his wild and reckless conduct, and has now been shipped off to the colonies,' is a phrase made use of in the *Journal of Mental Science*, in a description of a case of the kind now in question. But if a patient of the sort here described is unable, with the assistance and supervision of his friends and relatives, to steer a straight course and make a position for himself in the Old Country, still less is he likely, when left to himself, to be able to cope with the struggles and difficulties of Colonial life. Of the five cases above mentioned, in one the patient was of feeble intellect and the insanity strongly hereditary, in another the patient was obviously weak-minded originally, a third was a pronounced epileptic with consequent mania, and two others, a brother and sister, suffered from strong family taint. The brother had been previously for three years in an English County Asylum, and the sister had suffered from an attack of insanity before coming out here. The brother had only been four days in the Province when he again became insane, and was sent to the asylum. He was

two years and one month in the Province, the whole of which time, except four days, he spent in the asylum at the expense of the Government..............

"It is hard upon the Colonies that the mother country should 'ship off' these waifs and strays, these victims of 'borderland insanity,' to become, as they almost inevitably must do, when thrown on their own resources out here, confirmed lunatics, who have to be maintained at the expense of the community."

That Canada is being made a "dumping ground" for the degenerates of Europe it needs only a glance at our general and asylum statistics to show. Few, however, realize the extent of the burden thus imposed upon our charities. Only those whose duty brings them in contact with the defective classes can fully grasp how urgent it is that greater restrictions should surround the admission of undesirable immigrants. Even conservative England, which has always prided itself on being held wide open as a refuge for the poor and oppressed of all nations, is becoming aroused to the necessity of raising a barrier against unrestricted immigration. The evils have become so palpably evident there, during the past few years, that the average Briton, once heartily in favour of admitting any and every one to his country, is now crying out against it, and the last Royal Commission on Alien Immigration, which was appointed in 1902, and presented its report last autumn, recommended the establishment of an immigration department, similar to that of the United States, for the purpose of debarring and repatriating "undesirables."

In proof that what I have said is no exaggeration of the ill-effects attendant upon immigration insufficiently safeguarded, let me call your attention to some figures bearing on the subject. By the census of 1901, the population of Canada was 5,371,315, the number of foreign-born being 699,500; the total of the insane was 16,622, and of these 2,878 were foreigners. From these returns it will be seen that a little over thirteen per cent. of the general population—that is to say, the imported element—furnished over seventeen per cent. of so-called Canadian lunacy. Stated in another form, if the native Canadians alone are considered, there is one insane person in every 339 of the population; while the proportion among the foreign element alone is one in every 243.

If further evidence were needed, I would say that during the year 1903 there were admitted to Canadian asylums 2,213 insane persons. Of this number 1,726 were born in Canada. The remaining portion, 487, representing 22 per cent. of the admissions, was foreign born. At

Verdun 2,048 patients have been received since the opening of the establishment, and of this number forty per cent. were of foreign birth. In the same institution there are at the present time no less than thirty persons, in a population of four hundred and sixty, who, if subjected to anything but the most cursory examination, would never have been allowed to set foot in the country.

The cause of this load being foisted upon us is not hard to find. It lies in the laxness of our immigration acts, which do not demand a certificate of good bodily and mental health from each person landing, and limit the period during which such parties may be deported to one year.

No effort should be spared to relieve the Dominion of such an incubus, and the remedy is in our own hands. It consists in the passing of stringent laws providing for a full knowledge of the past history of every alien seeking our shores. The true place to prevent the coming of the dangerous immigrant is not at the port of entry, but at that of departure. Each person preparing to emigrate to Canada should be rigidly examined by salaried medical officers, appointed by the Dominion Government, as to his mental fitness at the time of examination, and should also show proof that he has never been insane or epileptic, and that his parents have never been affected with insanity. If found to fulfil all the legal repuirements, a sworn certificate, containing his full personal description and vouching for his mental and physical health, should be given him. Without such a certificate he should not be allowed to land, and the vessel bringing him should be obliged to take him back on its return trip at the expense of the owners. The health officers at our ports should, in addition, be clothed with authority to reject any immigrant on arrival if circumstances developed during his passage should demand it, and, instead of one year, the period of probation during which an immigrant might be returned to his own country if afflicted with insanity, unless surely due to causes arising after his arrival, should be extended to two or even three years.

Doubtless such legislation would be bitterly opposed by steamship companies as tending to lessen the number of their steerage passengers, and by irresponsible emigration agents, who send out every soul they can for the sake of the commission received on ocean and railway tickets. But the interests of the State should be paramount to such selfishness, and the Government should insist that Canada, while a hospitable refuge for the deserving poor, be not made an asylum for the diseased and defective.

Our Requirements.

Canadian requirements, speaking generally, are many. The most pressing, to my mind, are separate accommodation for idiots, epileptics, inebriates and the criminal insane; proper means for the segregation of the tubercular; some provision for the temporary relief of friendless convalescents; and the abolition of political patronage in asylum affairs.

In the matter of proper and sufficient accommodation for idiots and imbeciles Canada is woefully behindhand, there being in the whole Dominion not a single institution for these classes conducted on the lines that modern science and experience have found most satisfactory and successful. In all the provinces, with the exception of Ontario, the feeble-minded, which is a generic term now used to include all degrees of idiocy and imbecility, if provided for at all, are housed in poorhouses and other establishments, which provide for sane persons as well, or are mixed up with the insane population of the lunatic asylums. Ontario alone has attempted any adequate provision, and even she, from a spirit of false economy, has allowed a once promising institution to drift backward.

The care, training and education of the mentally defective is an accepted public duty, and should be undertaken by the State at public cost, at least to the extent of providing the necessary institutions and schools for their care and teaching. Mere custodial care, even if provided in separate establishments, does not meet the requirements of the case, it being admitted by all who have made the interests of this class a life study, that any effort made in the direction of bettering their condition is useless unless a training school is combined with the custodial asylum. Surely it is just as essential to educate the imbecile as it is to educate the deaf-mute or the blind. To allow him to grow up without education or "habit-training" is simply to allow him to degenerate into a repulsive, helpless creature, often so brutal in his propensities that, for the protection of the public, he has to be placed in custody. Of the milder types, many of the boys commit crime and find their way to reformatories; the girls fall from the paths of virtue, become mothers, and bring forth children more feeble-minded than the parent. The education, however, as well as the method of imparting it, must be made to suit the incomplete mental organization with which we have to deal. Even the least weak-minded are generally unable to profit, to any extent, by the instruction of ordinary schools, and often they suffer unmerited hardship at the hands of teachers, who, ignorant of the mental defect, attribute backwardness to laziness or perversity. So well is this fact recog-

nized that the public schools of New York, Philadelphia, Boston and Baltimore are organizing special classes for backward and feeble-minded children. Cognizant of the same thing, the Royal Commission on the Care and Control of the Feeble-minded, recently sitting in London, England, expressed the opinion that the provisions of the Defective Children's Act of 1899, by which the school authorities are permitted to compel the parents of feeble-minded children to send them to special certified schools for suitable instruction, should be made compulsory.

The ultimate aim and object in the teaching of the feeble-minded being to fit them, as far as possible, to become useful men and women, it necessarily follows that school teaching should be followed by manual training. Imbecile children, when they have acquired such elementary education as their limited abilities will permit them to assimilate, should be set to learn some useful trade by the practice of which they may become at least partially self-sustaining. It is in the industrial departments of the large establishments for the training of imbeciles that one sees what the better class of these unfortunates is capable of learning, and what really good workmen many of them become under the supervision of patient and intelligent instructors.

It was the lack of manual training that constituted the great barrier to further progression in the Ontario institution, to which I have alluded as the only one of the kind in the Dominion. As early as 1872, Mr. J. W. Langmuir, then Inspector of Asylums, urged the creation of an asylum for idiots which should consist of two distinct departments, one a training school for young idiots, the other a custodial department for the safe-keeping of adult idiots who were unsafe to be at large. By the adoption of the second portion of Mr. Langmuir's scheme the Ontario Government established the first custodial asylum for idiots on the continent. Later, a teaching department was added, and for several years Dr. Beaton, the Superintendent, was enthusiastic in his praise of the good results obtained. Ere long, however, he discovered that it would be impossible to secure any permanent benefit if manual training was not made to go hand in hand with mental and physical culture. Time and again he appealed to the Government for the provision of industrial instructors, but all in vain. In addition, his staff of teachers was reduced to such an extent that, in 1902, the training school had to be discontinued. In concluding his report for that year, Dr. Beaton says, "It is to be hoped that they (the schools) will soon be reopened with a capable staff of teachers and instructors, and that the institution and schools will not only be placed on the popular footing of years ago, but far in advance." I am sorry to say that this hope has not yet been realized.

With the reports that many imbeciles, after training, are independently capable of earning their own livelihood, I am not prepared to agree. Without continuous supervision little can be expected from them, no matter how highly trained and educated they may be; their whole disposition and temperament, away from control, in the vast majority of instances, completely negatives the supposition. A few improvable cases may be rendered capable of earning a modest competence, but a few, and only a very few, are successful. In nine cases out of ten, when such patients are said to earn their own living, it will be found that they have some advantages in the line of continued supervision. There can be no doubt, therefore, that it is the duty of the State to provide some means of permanent guardianship for these cases if friendless, and the need could be admirably met by the creation, in all institutions for the feeble-minded, of a separate department for improvable cases, who, after having undergone their period of training, could be drafted into work-shops of various kinds, or do farm and garden work under the supervision of an inspector. In this way they could be made in a large measure self-supporting—perhaps even a source of revenue to the State. The model institution outlined by Dr. W. W. Ireland, than whom we have no higher authority, would consist of three separate departments; a custodial department for the extreme and non-educable class; an educational department for those capable of being taught and trained; and a semi-custodial department for those whose education and training has been completed; these three departments to be distinct buildings at a moderate distance apart, but all under the same superintendence.

As respects special accommodation for epileptics, Canada is even worse off than she is in that for the feeble-minded, because, up to this date, no separate provision whatever has been made for them. Like the idiot, they have either been kept at home, confined in poorhouses, or scattered through the various wards of insane asylums. Every principle of justice and humanity is opposed to the indiscriminate mingling of epileptics, lunatics and paupers, and Ontario, to her credit be it said, has already taken steps to right this wrong by founding an epileptic asylum at Woodstock. This, it is expected, will be ready for occupation during the present year, certainly not before it is urgently required, since, by statistics compiled by Dr. Russell, of the Hamilton Asylum, in 1893, there were at that date no less than 292 epileptics among 4,251 asylum residents, with probably more than double that number scattered through the country, a burden to their friends and a menace to the public.

The peculiarities and requirements of epileptics are such as to characterize them as a distinct class, for whose well-being separate accom-

modation is necessary. Only under such circumstances can they receive that special care in the way of occupation, diet and moral treatment that their condition demands; only in that way can we spare our insane patients the annoyance arising from the paroxysms of their disease, their irritability and the violent outbursts of maniacal excitement to which many of them are subject. That the insane epileptic is properly a State charge, every person agrees, but the same cannot be said of those who are sane. Personally, however, I am of the opinion that all epileptics ought to be under proper care and treatment, and to a certain degree under control, and if these requirements cannot be supplied by the friends, then, both for the patient's sake and for that of the community in which he resides, provision should be made for him by the State. The boundary line between sanity and insanity in the case of most epileptics is a very narrow one, and our Provincial Governments would do well to follow the example of the United States, Germany and other countries where timely care of the epileptic often prevents his passing into the category of the insane.

According to the best modern authorities, employment is a *sine qua non* in the treatment of epilepsy. Those in touch with epileptics all maintain that the fits tend to disappear during working hours. Dr. Spratling, of Craig Colony, is strongly of this opinion, and states: "On holidays and on rainy days, when patients were compelled to stay indoors and could not engage in any occupation, the number of seizures was doubled." In this point of view the colony system undoubtedly offers the best mode of care for the victims of the "sacred disease." In colonies a variety of trades can be carried on to advantage, and, if a sufficiency of land be secured, floriculture, fruit-growing, and market-gardening, all of which are among the best forms of occupation for epileptics, both male and female, can be made sources of profit. In this way the colonists are enabled to contribute in some degree towards their own maintenance. Probably the most promising plan to meet all requirements, at least expense, is that advised by the Manchester and Chorlton Joint Asylums Committee, whereby one portion of a large estate is set apart for the accommodation of sane epileptics, another portion for those who are imbecile or insane.

The equity and wisdom of separating the criminal insane from those innocent of wrong-doing cannot be disputed. In Canada, however, we have no provision for such segregation, and the asylum authorities are obliged to receive not only all criminal lunatics, but all insane criminals on the expiration of their penal sentence. The former evil, bad as it is, is dwarfed by the latter, because patients of this type, as a rule, retain

all their criminal instincts, and are among the most vicious and depraved of the human race. The presence of such patients on the wards of an ordinary asylum is a standing menace to the peace and discipline of the whole institution. In their sane moments, they never had the most distant ideas of the rights of property, and seldom placed any value on human life when it stood in the way of the prosecution of their criminal designs; when insane, these traits are intensified, because what little power of self-control they had is generally lost and the fear of punishment for their misdeeds is banished. The more an ordinary lunatic improves, the more easily he is managed, whereas the more rational an insane criminal becomes the more dangerous he is. If taunted by their fellow-patients, as is apt to be the case, such lunatics are prone to violence; in addition, they are constantly making efforts to escape, and safeguards have to be provided against their accomplishing their purpose. In this way the innocent are made to suffer for the guilty, because we cannot fully carry out the modern idea, which discourages the use of bars and locks, in fact, everything that partakes of the nature of a prison. Many of the insane retain all their self-respect, and object to associate with this class of patients, while their friends, quite rightly, feel it a grevious wrong to have their unfortunate relatives housed with men and women who have been deliberately guilty of crime, and who, while undergoing punishment for such crime, have been overtaken by insanity. The Kingston Asylum suffers most from this cause owing to its contiguity to the penitentiary, and its Superintendent, Dr. C. K. Clarke, who has long and strenuously protested against it, forcibly concludes his report for 1903 in these words: "People outside of institutions do not care to associate with instinctive criminals—there is no reason why the non-vicious insane should be forced to accept a companionship that would be repulsive in everyday life."

A resolution offered by Dr. Pliny Earle, and adopted by this Association in 1873, applies forcibly to Canada at the present day. "That when the number of this class in any state (or in any two or more adjoining states that will unite in this project) is sufficient to justify such a course, these cases should be placed in a hospital specially provided for the insane; and that until this can be done, they should be treated in a hospital connected with some prison, and not in the wards or in separate buildings upon any part of the grounds of an ordinary hospital for the insane."

The former is undeniably the better plan, and, if Ontario be taken as as index to the existing state of affairs in the Dominion, there is certainly a large enough proportion of the criminal classes of the insane to

warrant the creation of a special asylum for them. In 1899 there were in asylums of that province no less than 77 criminal lunatics guilty of offences but acquitted by the courts on the ground of insanity; the number of criminal lunatics would probably equal this, and there must be a large number of like cases in the other provinces. For the Federal Government to erect an institution for the reception of these cases, taxing the various provinces in proportion to the patients they send, would seem to me the best and most economical way to meet the requirements. Failing this, all such patients should be kept in the penitentiary asylums, which should be open not only to insane criminals whether their sentences have expired or not, but to the criminal insane as well. Criminality alone should be the criterion for the separation of these people from the ordinary insane.

For some years a conviction has been steadily growing in the minds of physicians and the general public that Canada is behindhand in the provision for the care and control of inebriates belonging to the lower ranks of society. In 1875 the province of Ontario took steps toward providing for these unfortunates but the good intention was abandoned. To my mind there is no doubt that the custodial care and treatment of inebriates is a question of the gravest importance, and that the establishment and maintenance of a hospital for this purpose fall within the true sphere of the Government. The great barrier to the creation of such an institution has been the thread-bare cry, the "liberty of the subject," but the rights of the individual should be subordinate to the rights of society. We are told that the inebriate by his drunkenness violates no law, and this may be so. But are we, therefore, justified in allowing him to continue his debauchery until he commits a crime, as so many of them do, while many more are only by the merest accident kept from so doing? If a lunatic threatens suicide or the life of a fellow-citizen, we put the law in force and confine him, without, as a rule, waiting until he has made an attempt on his own life or committed a homicide. It should be the same with an inebriate.

The distinction between drunkenness and insanity has frequently been the subject of forensic investigation, but it is daily becoming more and more evident to the profession and to some extent to the laity, that inebriety and dipsomania are diseases of the brain, resembling, if not in some cases constituting, true insanity. That an individual should in all other matters appear to be of sound mind, but that at certain times he should be subject to a morbid desire to reduce himself below the level of the beast by means of drink, is hard to grasp, but none the less true. Equally true is it, as shown by recent German studies, that the continuous

use of alcohol to excess produces certain molecular changes in the brain cortex, which are apt to be permanent. The result is a lowering of the moral tone, a dulling of the mental powers, and a weakening of the will which constitute an organized, progressive degeneration. Nor is the ill-effect of the excessive use of alcohol confined to the individual himself. There is strong evidence to show that the children of intemperate parents inherit a marked tendency to intemperance, insanity, idiocy, epilepsy, or some other form of mental disorder. Such eminent authorities as Professor Kraepelin of Heidelburg and Professor Berkley of Johns Hopkins University agree in considering alcohol as a powerful factor in the production of insanity, the latter going so far as to say, in his work on mental diseases, "Of all the varied inciting causes of mental infirmities, heredity and alcohol are most important." Personally I would go still further and say that, in the majority of cases at least, inebriety itself is a mental disease,— a true psychological condition. If as has been done, we define an insane person to be, "One who owing to perverted or deficient mental powers, the result of functional or organic disease of the brain, cannot adapt himself to his natural environment, and whose conduct is not in a sufficient degree guided and restrained by the ordinary safeguards of society," we include a large section of those at present known as habitual drunkards. But whether prepared to go thus far or not, I think there are few who will not agree that alcohol does much more harm in the way of producing mental degradation in the many who are never placed under care, than in the few who now find their way into asylums. Everyone is acquainted with men and women whose mental powers are so shattered by long-continued indulgence in drink that they have reached the border-land between sanity and insanity, even if they have not overstepped it.

To try to reform this class by any other means than personal restraint is "wasting our sweetness on the desert air." They must be placed in custody in an institution, the superintendent of which is clothed with authority to detain his patients for an indefinite length of time. In other words, the same policy in respect to their personal liberty should prevail, as now prevails in respect of lunatics. It matters not what the form of commitment be, provided it is statutory and means a definite and prolonged term of oversight and treatment. This treatment should be conducted in a special establishment where work of various kinds,— one of the best of remedies,—can be enforced after the necessary medical regimen has paved the way for it. In this manner the cost of maintenance would be greatly lessened.

As early as 1833, Dr. Woodward, soon after taking charge of the

Worcester Insane Asylum in Massachusetts, urged that inebriates be regarded as insane and sent to the asylum for special treatment, but this is manifestly wrong. To associate the ordinary lunatic with the inebriate, even if we consider the latter to be truly insane, is an injustice to both. In the words of Dr. Joseph Workman,—"Inebriates are soon dissatisfied, and strongly disposed to magnify the causes of dissatisfaction which the discipline of an insane hospital unavoidably presents,— this dissatisfaction becomes contagious. One inebriate can upset the quiet and comfort of a whole ward."

In view of the declaration of modern science that tuberculosis is a communicable, preventible, and curable disease, the non-provision of proper means for separating the phthisical from the non-phthisical insane might almost be called criminal, and yet in only one of our Canadian institutions, Rockwood, is there any special arrangement for such segregation. In all the other hospitals the medical officers have to combat the plague as best they can by attention to cleanliness, disinfection, and the isolation of the affected as far as possible. So much, however, has been written on the subject of tuberculosis during the past few years that I shall not detain you with any detailed account of my own views on any of the points connected therewith, but content myself by saying that I doubt whether, owing to the rigor of our climate, the "tent treatment," so successfully practised by Dr. A.E. Macdonald at the Manhattan State Hospital East, would be practicable with us during the winter months. Instead, I would favor the erection of a separate, isolated building to be used for tubercular cases only, one portion of the structure being set apart for suspected cases, another for those in whom the presence of the malady in an active state has been positively established. Such a building should be frame and constructed as inexpensively as possible, so that, if its destruction on account of infection seemed advisable the loss would be slight.

An important problem confronts the superintendents of Canadian hospitals, as it does those of the United States, in the case of the discharge of friendless patients. This is the securing of homes and employment for them. Who of us but can call to mind cases where the discharge of patients, though fully warranted by their mental condition, has been delayed for weeks, even for months, because they had no friends who could or would take charge of them on their return to the world, no homes to go to, no employment awaiting them by which they could earn their bread? The average citizen seems to have a morbid dread of the poor unfortunate who has been insane, and utterly refuses to even

think of hiring him, while his wife is equally resolute against engaging as a domestic any woman who has been an asylum inmate. To turn such persons adrift without means or help is virtually offering a premium for their return to the hospital, whereas, if given some slight assistance they might earn a fair living and not again become a charge on the public.

> "'Tis not enough to help the fallen up,
> But to support him after."

Criminals discharged from prisons and reformatories are helped and encouraged by Prisoners' Aid Societies, often indeed assisted by the State with gifts of clothing and money. Fallen women are taken in hand by societies with a view to their reformation. Orphans are housed, educated and clothed by the charitable. Only for the poor creatures who have emerged from the gloom of dethroned reason is there no helping hand, no assistance of any kind. The best remedy for this pitiful state of affairs is to be found in the organization of "After-Care Associations for the Insane," such as exist in France, which country was the pioneer in this branch of philanthropy, Switzerland, Italy, Germany and Great Britain. These associations would have to be the outcome of private enterprise, because the Governments of the several provinces have already as much as they can do to provide for those actually insane. Doubtless, however, if once started by private benevolence and brought to a successful issue State aid would not be wanting to help the good work along.

Last but certainly not least of the wants to which I would call attention is the abolition of political patronage in the matter of hospital appointments and the administrations of hospital affairs. The "spoils doctrine" which decrees that "office is a reward for political service" has done much to keep down the record of scientific work in Canadian hospitals for the insane. Merit has had little weight, especially in Ontario, as against "political pull," and the consequence is that almost two-thirds of our existing asylums are directed by superintendents destitute of special training prior to their appointment. That men taken from the ranks of the general profession do sometimes prove themselves admirable asylum officials, I do not dispute. But what I do maintain is that the principle is wrong. To subject the care of the insane to political purposes is a flagrant injustice to the patients, who should be afforded the best possible chance for recovery; to the tax-payer, who should receive the best value for the money he pays for their support; and to deserving juniors who are thereby debarred from all chance of

promotion. Superintendents are made, not born, and it requires years of conscientious study to acquire a knowledge of how to deal satisfactorily with the manifold problems of psychiatry. Moreover, assistants generally take their cue from the superintendent, and if the superintendent be not specially trained for his work and take no active interest in it, his subordinates will almost inevitably lapse into routine. Nor can we blame them much that such should be the case. With no example set them, no prospect of advancement to cheer and encourage them to put forth their best efforts, what else could we expect?

Were the "spoils system" confined to the appointment of the heads of asylums the resulting ills would be lessened. Unfortunately it is not. Every medical office connected with our asylums from the highest to the lowest, is regarded as "political pap" to be administered where it will do most good for the dominant party. Governments are unable or unwilling to grasp the fact that the scientific study of psychiatry consists primarily in the study of mental phenomena, and that this can only be done to advantage by men specially trained for such study. As a result, well developed seniors, who have been failures in life, are often given the junior places that should be awarded only to young men who have shown interest in, and capacity for original research. This is manifestly unfair both to the inmates of our asylums and the superintendents thereof. "Responsibility and authority must go hand in hand" is a time-honored axiom, but the system of governmental appointment of assistants furnishes the anomaly of superintendents held responsible for the successful management of their hospitals, and yet deprived of the authority to appoint the officers upon whom such success in great measure depends. Surely a superintendent should be best capable of judging of the fitness and competency of his assistants, and it comports with common sense that he will, if only through self-interest, endeavor to procure the best he can find.

A vigorous editorial, "Insanity and Politics," recently published in the "Montreal Medical Journal" deals so appropriately with the ills of political patronage in our asylum service that I may be pardoned if I quote a portion of it. "Most persons will admit unless they are incapacitated by congenital perversion, or political prejudice, that a hospital for the insane exists—pun or no pun—for the purpose of extending hospitality to the insane, and not to the protegees of a political party. In short, it is mental not political degeneracy which entitles an entrance to the enjoyment of such hospitality as it can offer. In Canada, there are to-day eighteen hospitals for the insane, and all but six exist for the

combined care of the insane and the politicians. In twelve the present superintendents owe their appointment to influences other than their attainments in psychiatry.

"The answer which the politicians make to all protests is that the men who occupy the posts of assistants are not sufficiently qualified to become superintendents. This is partly true, and because it is partly true the case is the worse; because, if there are incompetent men among the assistants it was the politicians who put them there. But the answer is inadequate; because, in spite of the politicians there are enough good men in the service to fill every vacancy which may occur during this generation. The wonder is that there are any remaining, when they have seen themselves passed over time and again by men whose attainments were unproven. The rewards of the specialty of psychiatry are small enough, and should not be filched away. The injustice is not chiefly to the men who spend a life-time in acquiring a knowledge of the insane, of their diseases and of their treatment; it is to the wretched insane themselves who are deprived of that experience which might aid in their recovery.

"We yield to none in our admiration of the general practitioner. We are aware of his energy, his resource and his fidelity, but not even the general practitioner will lay claim to a capacity for treating off-hand and to the best advantage grave lesions of the eye and ear, or of the more secret parts of the body. He should adopt the same attitude toward the brain. In time it will come to be a shameful thing for a general practitioner to accept a position for which he is not qualified, since thereby he is committing a wrong towards his colleagues and towards his patients.

"The ideal service is that which prevails in New York. The superintendent is appointed by the board of Management, and he must be selected from men who have served at least five years in an institution for the insane, and have proved their capacity and instinct for such work. The assistants in turn are appointed by the superintendent and they obtain advancement according to their merits, no step in advance being made unless the candidate has had previous experience in the specialty, and proved his fitness by passing an examination before promotion."

Nor is it solely in the way of appointments and promotion that our provincial governments have shown themselves remiss. The good men in the asylum service, and good men there be, are, in most instances, hampered by the want of proper equipment and the paucity of the medical staff employed. It is the duty of the State to aid in every way the

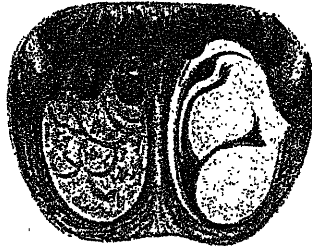
attempts of its physicians to do scientific work. Only so can they be stimulated to keep pace with the trend of modern research in other countries,—only so can we guarantee that our patients will be under the care of ever-widening experience. Hitherto the governmental policy has been to provide little or no equipment for study, and so to limit the number of physicians that the greater part of their time is taken up with clerical duties. The numbing effect of such routine work is great, and might well make the average assistant adopt the words of Mr. Mantalini and pronounce life "one demd horrid grind."

Before we can properly enter on the study of psychiatry, as we ought to do, our Governments must learn that to make a hospital a centre of scientific research its physicians should be appointed from the best class of men; should be paid sufficiently well to free them from anxiety as to their future livelihood; should be certain of promotion if they prove themselves fitted therefor; should be assured of a retiring allowance, graduated on length of service, as is the case in England and other trans-atlantic countries; should be freed from an overburden of routine work; and should be provided with books, apparatus and assistance to properly pursue their researches.

Much more might be said on this and other subjects relating to the care of the insane in Canada, for example, the necessity of separate hospitals for acute cases and of pavilions connected with general hospitals, of nurses' homes, and of retiring allowances for medical and other officers, but I fear you will already have applied to me the old Spanish saying anent a tedious writer,—"He leaves no ink in his inkpot." I shall, therefore, no longer trespass on your forbearance, but content myself by saying in conclusion, that while with respect to custodial care and ordinary treatment, moral and medical, Canada, generally speaking, is well up to the times, she is doing little toward the solution of the many problems connected with the scientific aspects of insanity. In this respect she presents but a sorry picture when compared with the good work being done in many hospitals elsewhere. To stand still is to fall behind. The universal motto should be,—

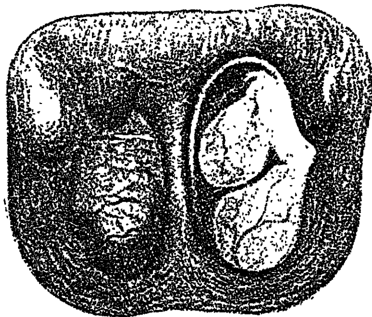
"Press on.—'for in the grave there is no work
And no device.'—Press on while yet ye may."

The first session of the Conference of American Anatomists was held in the Wistar Institute, Philadelphia, on April 11th. Among those present were representatives of anatomical science from every state in the Union. The meeting had under consideration the question of the advisability of selecting a central institute for co-operative research.



BONY OCCLUSION OF RIGHT POSTERIOR NARIS. (CONGENITAL.)

FEMALE: AGE, 8 YEARS.



BONY OCCLUSION OF RIGHT POSTERIOR NARIS. (CONGENITAL.)

FEMALE: AGE, 22 YEARS.

[*Phillimore, 1905.*]

REPORT OF TWO CASES OF BONY OCCLUSION OF THE RIGHT POSTERIOR NARIS.

BY

H. S. BIRKETT, M.D.,

Professor of Rhinology and Laryngology, McGill University; Rhinologist and Laryngologist, Royal Victoria Hospital, Montreal.

The comparative rare occurence of occlusion of one posterior naris due to a congenital bony partition is my excuse to place two such cases on record. As the history of the two cases is practically similar, a single and brief outline will therefore suffice for both. The first concerns a young woman 23 years of age, and the second one, for which I am indebted to the kindness of Dr. E. D. Aylen, occurred in a little girl nine years of age. The first symptom noted by the parents was of impaired nasal respiration, especially during nursing. The entrance to the right nostril was observed to be filled with a considerable amount of mucous secretion, and it was thought that the children were suffering from so-called "catarrh." This condition of affairs has continued ever since, and at the present time the following are the results of the examination: —

The right nostril in each case is filled with a large quantity of thick tenacious mucus, which is only removed after careful syringing and swabbing. Upon anterior rhinoscopic examination the nasal cavity is seen to be very spacious, due largely to an ill-developed condition of the inferior and middle turbinated bones. By means of the probe the posterior naris is felt to be closed completely by a partition, which conveys to one the sensation of its being bony.

Posterior rhinoscopic examination confirms the existence of the foregoing condition, and it is well depicted in the accompanying sketches for which I am indebted to Dr. R. H. Phillimore. There is an appreciable diminution of the sense of olfaction and hearing on the corresponding occluded side: (1) Right ear, 20/40: (2) Left ear 30/40. The mucous membrane covering the middle and inferior turbinated bodies is paler than normal, and sensation is not impaired. The treatment carried out was the same in both cases.

Under ether anæsthesia, the bony partitition was perforated by means of an electric dental drill, the movements of which were guided by the finger introduced into the naso-pharynx. The opening thus made was kept patent by a strip of iodoform gauze introduced through it into the naso-pharynx. The subsequent progress of each case was satisfactory and uneventful, and respiration has been established through the once occluded nostril.

Read before the Montreal Medico-Chirurgical Society.

Occlusion of either one or both posterior nares may be due to either a membranous or bony partition. The former is fairly common; the latter, of which the two recited cases are examples, is comparatively rare. The condition is always congenital, and its mode of origin is still a doubtful question. Luschka believes that the bony plate is a continuation of the free border of the horizontal plate of the palate bone: Kundrat and Shrœtter that it is an extension of the vertical portion. Hansemann in an able article in Heymann's work claims that no satisfactory explanation of this peculiar development has been adduced.

CARCINOMA OF THE TONGUE.

BY

G. E. ARMSTRONG, M.D.

Gentlemen:—Having in the wards at present a series of cases of carcinoma of the tongue, that is fairly representative of the progress and varieties of this dread disease, I shall take the opportunity of discussing with you some of the more important, perchance elementary, points relating to its recognition and treatment. A casual observation of these cases should indelibly fix upon your minds a vivid picture of its natural history.

This man, whom many of you saw before operation, came to us with a small, quite insignificant-looking ulcer on the border of his tongue. There were a few enlarged but soft lymphatic glands to be felt in the neck. A little soreness when eating was really the only inconvenience felt.

The second patient has a large fungating ulcer on the side of his tongue. The disease is well advanced; the glands in the neck are enlarged and hard; he suffers a good deal of pain. He suffers when he talks, and can with difficulty be understood. He cannot perfectly masticate his food, and swallowing is distressing. His mouth is constantly filling with saliva, which you see him as constantly wiping away.

The third case is still further advanced. The tongue is fixed, articulation difficult. No solid food can be taken. He cannot open his mouth. You observe this large, foul, sloughing crateriform ulcerated mass beneath the jaw. The glands are enlarged down to the clavicle. The lower jaw is involved. The secretions from the neck and jaw are extremely offensive to the patient and to others. He is in constant pain, and requires frequently repeated doses of morphia. He is septic, has a rapid pulse, and altogether is about as miserable as a man can be.

Clinical Lecture delivered in the Montreal General Hospital.

These three cases should teach you that the disease, limited at first to a very small area, tends to involve the tongue extensively, to extend beyond the tongue and mouth, invading the jaw, the tissues of the neck and the lymphatic glands, slowly but surely limiting the power of speech, the power to take food, causing great pain and suffering and ultimately destroying life.

Our interest in all forms of malignant disease is stimulated by the apparent increasing frequency of its occurrence. A few figures from Bergmann's System of Surgery are instructive. In the first place, there is the difference in the sexes. Of 1,000 women suffering from cancer, 243 had the condition in the mammary glands and 13 in the mouth, eight on the lips, three on the tongue and two in other parts of the mouth. In 1,000 men suffering from cancer, 111 tumours were in the oral cavity, of which 77 were on the lips, 21 on the tongue, and 13 in other parts of the oral mucosa; so that carcinoma of the mouth is much more common in men than in women—83 per cent. in men and 16 per cent. in women.

Barker, who has been working up the frequency of carcinoma of the tongue, gives statistics which show that in England during the years 1872-81, the number of cases increased from 26 to 115 per thousand. That in itself is enough to arouse one's interest to an extraordinary degree. Of course, it may be argued that records are much more accurate now than they were 25 years ago, that diagnosis is more correct, that autopsies are more frequently performed, and people come with increasing frequency to centres of medical and surgical work where accurate statistics are kept. However, reasons of that kind do not explain it all, and it would certainly seem that we are face to face with the fact that carcinoma is increasing, not only in the tongue but in other parts of the body.

I suppose the causes of lingual epithelioma are similar, probably identical, to those of carcinoma in other parts. We don't yet know the cause of cancer. We do know that cancer at the start is a local disease. I think many clinical surgeons feel very strongly that there are, in many instances, pre-cancerous conditions—I mean local conditions which predispose to cancer. Among these may be mentioned injuries, irritation from carious or jagged teeth, smokers' patches, gummata, syphilitic ulcers. These act by producing irritation, and by altering the nutrition and the resisting power of the tissue, as, for instance, the cicatricial contraction following an injury or a healed ulcer. It is doubtful if the ulcer from syphilis is more liable to malignant change than that

from any other cause. In one instance I removed a small ulcerated area from the palate, which was obviously due to the pressure of a false teeth plate. Microscopically, it was shown to be a typical squamous-celled epithelioma. It would be well for family physicians to take sufficient general interest in their patients to instruct them regarding the danger of all sores of the buccal mucosa changing their character, and to advise them to go to the dentist when necessary or to stop smoking if need be.

How are we to recognize an epithelioma of the tongue in the earlier stage? This first case is an example of early diagnosis, the result of a high-class of medical work on the part of the general practitioner, and I have no doubt this case will prove the good results which are to be obtained when an early diagnosis is made, when a patient accepts the advice given to him as a result of that early diagnosis, and the surgeon does his work properly.

This patient, 53 years of age, consulted Dr. Gordon, a short time ago, for a pain in the gums (December 3rd). Now, this is a very indefinite symptom, and it would have been very easy to have looked into the mouth, and not seeing anything very much wrong, to have prescribed something for the stomach, or to have given a mouth wash; but it must be noticed that Dr. Gordon's good work was in discovering that the pain did not really start from the gums, but was from another source. Under a good light he examined carefully, looked at the side of the tongue, and there discovered a slight fissure on the right side of the tongue, far back opposite the second lower molar tooth near the lingual nerve, and very tender. There was scarcely any induration, but there was considerable tenderness. The patient was asked to return, which he did a few weeks later, and it was then found that in place of this fissure there was a small ulcer, very like an aphthous ulcer, perhaps one-sixteenth of an inch in diameter. Here again is where the general practitioner can do good or bad work. To do good he should make every effort to establish a correct diagnosis; to do bad work, he should make light of the sore, or worse, apply a caustic. The patient was referred to this clinic.

Here it was found, first, that the ulcer was painful; second, it was indurated, hardened and thickened, and third, that there was an enlarged gland or two under the jaw on that side. Now came the important question as to its nature. It was examined very carefully; it was not a decubitus ulcer; the man was not tubercular, and there was no history of lues; it was clearly not an actinomycotic condition, and so by exclu-

sion we were brought down to the probability that it was the beginning of an epithelioma. A portion was removed, after injection with cocaine; and the typical cell nesting and the dipping down of the epithelium was discovered by the pathologists, and the clinical diagnosis confirmed. The indications were clearly to remove it. This was done, and the specimen was proven by the pathologists to be carcinomatous. The future prospect for this man is now good; but had the examining physician merely applied a little caustic at the time, and on the return of the patient a little more, perhaps given the man a stick to apply at home, the condition after a few months of this treatment would have been one of inoperable carcinoma.

Butlin speaks of a man who developed a warty growth on the side of the tongue; he went to the family physician, who said it was nothing but a warty growth, and of no consequence; a little later he spoke to a medical friend of his, who gave the same opinion, telling him to think nothing of it; still later, he turned up at Mr. Butlin's clinic with an almost inoperable condition; the patient was himself a doctor.

Now, in the case of this man, 53 years of age, I think we can give him every encouragement to believe that he will not be troubled with this condition again, as it was thoroughly removed, and, as I say, taken in time. Had it been otherwise, the picture and prospects would have been entirely different. This patient is under the disadvantage of suffering from a serious cardiac condition; but he is improving, his nutrition is better, and he is making a very nice recovery. This is an illustration of the early case, and all should be like that.

The next in degree of severity is that of this young man, 37 years of age, who came to the Hospital December 27th, complaining of a very sore mouth. He was born in England, has been in South Africa, and has only recently come to this country. About three months ago, he first began to suffer from a sore mouth. He now has this very extensive disease of the tongue, which began on the left border opposite the first molar tooth, and has extended almost half-way across the tongue. The glands under the jaw on the left side are enlarged. On the right side they are also enlarged and palpable. In this case the condition is operable. By means of an extensive excision, and the sacrifice of the greater part of the tongue, as one cannot be sure that it has not gone right through, and also the dissection of the glands, the disease may be eradicated.

This next case is a man 54 years of age, who shows a very extensive growth, which has been going on about a year, and illustrates the life

history of cancer of the tongue, and it, of course, is now inoperable. He has never had any operation done, though the diagnosis was made early. He always declined any interference, with the result which you now see. The disease, beginning in the floor of the mouth, has extended down to the submaxillary region, has destroyed the submaxillary gland and the overlying skin, leaving this deep chasm with sloughing borders, and has extended to the lower jaw. Here we have carcinoma of the floor of the mouth and tongue, carcinoma of the glands in the submaxillary region, and of those behind the angle of the jaw, beneath the chin, and on the other side of the neck, the lower jaw itself, and it is now extending down towards the supraclavicular region. The glands just opposite the bifurcation of the carotid are not palpable, and this is always one of the regions to be examined, as it is often spoken of as one of the glands involved in this condition. The facial nerve is partly paralysed by pressure or infiltration. The left pupil is smaller than the right, indicating pressure on the cervical sympathetic. I think we all will admit that he cannot speak as distinctly as this fourth patient from whom I removed the whole tongue some years ago.

Here, then, we have practically the inoperable condition; the disease has become too extensive, and the danger would be too great to justify operating. It would mean resection of the whole tongue; resection of the floor of the mouth; removal probably of the lower jaw, with dissection of the neck; and one might be prepared to tie the large vessels, as their sheaths are probably involved.

In these four patients we have examples of four varieties of the beginning of carcinoma. In No. 1 it began as a small fissure on the border. More frequently it begins as a warty outgrowth. Sometimes in an excoriation or leucomatous patch. In No. 2, the beginning was in a rare form. The patient tells us that there was first a lump or nodule on the left side of the tongue opposite to the first molar tooth; that this broke down, and became a running sore. The microscopical examination of a piece removed for the purpose has determined its undoubted malignancy. There is not a clear history of lues, but it is quite possible that the epithelioma has developed in the base of a broken-down gumma. In the third and fourth cases the disease began in the floor of the mouth, possibly in submucous glands, and extended into the substance of the tongue, and downwards, infiltrating the tissues in the floor of the mouth.

In each case the disease began in front of the papillæ. The anterior half and borders of the tongue are more frequently the seat of the dis-

case than the posterior half, or body. The involvement of the surface in old cases of chronic glossitis occurs but rarely. The four patients are males. The greater frequency of carcinoma of the tongue in males is thought to be due to their habits of smoking and drinking. One is 37 years of age and the others 45, 55 and 65 respectively. Cancer of the tongue is commonly found between the ages of 40 and 60. Mr. Butlin has reported a case in a man 24 years old, and Variat an epithelioma of the tongue in a boy aged eleven. These are exceptions, however, and the disease does not frequently occur under the age of forty.

In making a diagnosis of epithelioma of the tongue, one must think of simple ulcer, decubitus ulcer, syphilis, tuberculosis, and actinomycosis. As a rule, it is not difficult to exclude non-malignant conditions; sometimes, however, it is difficult even for the most experienced clinician.

Simple and decubitus ulcers and simple warty growths, in my experience, are rare. The few that I have seen have been clearly due to local irritation from a sharp corner of the tooth or other obvious cause, and have healed within a few days after the irritation was removed. A primary sore on the tongue is rare; generally it is found upon younger patients, and usually about the tip. Then, again, the glands are enlarged almost at once. In cancer the glands are enlarged later on. Secondary symptoms appearing would clear up any doubt. A tertiary ulcer or a gumma may present greater difficulty. Yet, notice that, in the patients before you, the disease began in the border of the tongue. I have already mentioned that malignant disease may start in a fissure on the dorsum of a chronically inflamed tongue. Here the evidence of the old inflammatory condition and the fissure is generally quite apparent. As a rule, however, to which there are but few exceptions, cancer begins on the border, and a gumma is found in the substance on the dorsum. It is covered with epithelium. Later on, after the gumma has broken down, if malignant disease develop, that part becomes hard, probably harder than other parts of the sore. Tubercular ulcer is not common. The presence of pulmonary phthisis might suggest it. Primary tuberculosis of the tongue is exceedingly rare.

In all these conditions, and in actinomycosis, the microscope should be used to confirm or alter the clinical diagnosis. The two should agree. No matter how clear the clinical evidence might be, I should not feel justified in advising a man or a woman to sacrifice a portion or the whole of their tongue unless the microscope confirmed my diagnosis. It is a most serious operation, and I do not think any one of you should undertake to advise such a mutilating operation unless the diagnosis is absolu-

tely certain and confirmed by the microscopical examinations of a portion which had been snipped off. Such a piece can be easily removed under the local influence of cocaine. It is not, as a rule, wise to spend too much time in differentiating these conditions. The disease is steadily progressive, and the patient gets steadily worse. This series of cases demonstrates clearly the natural course of the disease, and its tendency to destroy life. The prognosis in all cases of epithelioma of the tongue is death in 12 to 14 months after the onset. Get all the facts together quickly, and submit them to the test of malignancy. Once the diagnosis of malignancy is clear, lose no time in removing it if it is removable.

As to the nature of carcinoma, I cannot do better than to quote to you the words of Professor Orth: "The characteristic and distinguishing features of cancer cells are that they are none other than epithelial cells. They are epithelial cells, not only in accordance with their structure, with respect to the nature of their protoplasm and nuclei, not only epithelium in accordance with their biological activities, but they are also epithelium in accordance with their origin. A connective tissue cell can never be transformed into an epithelial cell, nor *vice versa*."

But why do epithelial cells take on this peculiar growth? It is important to remember that when an epithelioma develops in the tongue, extends to the glands or to other distant parts of the body, a portion of that cancer is detached and carried to these distant parts. It may be that there is a parasitic cause of cancer, but no one has as yet proved it. To prove this you must find a germ which in pure culture injected into a part will produce an epithelioma. If you transplant a piece of cancer, that does not prove it to be parasitic. One can obtain, with a pure culture of the tubercle bacillus, tuberculosis; but we have no germ which we can inject in like manner to produce epithelioma. When the epithelioma spreads from the side of that tongue, some portion of it, which was a cancer cell, was broken off and carried to that gland, and there it multiplied, for the cancer cells are identical in the two situations.

The practical point of this is that, in dealing with it, all glands communicating with the disease should be removed. One cannot altogether trust to the histologist's or pathologist's report as to its malignancy, because that gland may only that morning have received its first cancer cell, and unless every cell in the gland is examined, the cancer cell may be missed. So that we, as surgeons in dealing with these cases and operating upon them, must assume, if the glands are at all enlarged, that they may be malignant, and should be removed with the same

thoroughness as if we were dealing with a glandular carcinoma of the breast. He would be a bold surgeon indeed, and one over-confident in his powers of discrimination, if he assumed to decide at the operating table, that this gland was simply inflammatory, and he would recover perfectly, once the source of infection was removed, and that the other gland was malignant.

When operating upon patient No. 1, I gave a brief report of the details of some of the operations designed for the removal of epithelioma. To-day we may in a more general way consider some of the essentials of all operations. It must be clear to you that the first and most important essential is early and correct diagnosis. Don't be content to sit on your chair and ask questions, and recommend a mouth wash. Get up, and thoroughly examine in a good light until you find the spot complained of. The next essential is that the whole of the disease should be eradicated. A very wise man and acute observer, who lived about 500 years B.C., said: "It is better not to apply any treatment in cases of occult cancer; for, if treated, the patients die quickly; but if not treated they hold out for a long time." All the ancient commentators explain that by "occult" may be meant either "not ulcerated" or "deep seated." Whatever you do, or do not do, don't apply caustics. They cannot possibly do any good. They do, however, irritate and accelerate the growth, and more than that, they make the patient think that something is being done, and therefore he loses valuable time. It goes without saying that the diseased area should be removed *in toto*. Who can at the operating table define accurately the limits of the diseased area? One may say that the knife should pass at least one centimeter, or half an inch, wide of all evidences of infiltration. Our question, however, cannot be answered quite so easily. Let me put it in another form: Should the whole tongue be removed in all cases? Replying categorically, I should say, No. If, for instance, a small epithelioma is found upon the tip of the tongue, I believe that if in the removal of that growth the knife passes at all points a full inch away from the disease, the results will be as satisfactory and as permanent as would be the case if a still wider area were taken. In patient No. 1, whom I show you, I did not remove the whole tongue. It was a very small epitheliomatous ulcer; the base was indurated, but the immediately surrounding tissue gave no evidence of involvement. I therefore removed the epithelioma and an inch of healthy tissue on all sides. I believe the man is as safe as he would have been had I removed the half or the whole of the organ. I make this statement on the authority

of a paper by Mr. Butlin, which appeared in the *British Medical Journal* five or six years ago.

Recurrence after removal of the whole tongue is nearly always on the same side of the stump or about the tonsil, or in the lymphatic glands of that side of the neck. If the disease is confined to the border of the tongue, one can get as far behind the growth in removing the half as in removing the whole organ. The same reasoning applies to the removal of the tip of the tongue. The advantages of partial removal in suitable cases are, in the first place, a lower death rate after operation, and in the second place, the greatly increased comfort of the patient in eating and speaking. The remaining half does not curl up and become dry and useless. Quite the contrary, it comes to lie about in the middle of the mouth, so much so, that many of you might look in without noticing that the one half had been removed. It is more fixed than the natural tongue, but it is moist, helps greatly in talking, and is most useful in keeping the bolus of food between the teeth in eating. Of course partial removal is only suitable for early and circumscribed cases. The object of the operation is to save life from a disease that is always fatal, if it be left alone. The surgeon, then, can only consider a partial excision in cases where the disease is recognized early, and is limited in extent. The saving of life must ever be the great and all important consideration.

Another essential is the systematic and thorough removal of all the lymphatic glands which may have received infection from the neighbourhood of the disease. The paramount importance of this detail is only being appreciated during the last few years. There may be so-called metastases to the lungs, or liver; and for this the operator may not be responsible. The surgeon should, however, hold himself responsible for as complete removal of the glands of the neck as is possible. The word "recurrence" I consider to be unfortunate. It certainly covers a multitude of sins. Continuance is the word that the operator should ever have in his mind when operating for malignant disease here and elsewhere. With that thought uppermost he will do better work. The prolongation of life after these operations depends largely on the removal of the lymphatics. We are indebted to Sappey for our intimate knowledge of them. The spread of the cancer cells is through these lymphatics. While it is proved and demonstrated that the lymphatics of the two sides of the tongue communicate freely with each other, it is also a fact that clinically those of the opposite side are only affected comparatively late in the course of the disease.

When a patient comes to operation he naturally asks what is to be gained by it. The results of operations for carcinoma up to the present may be variously stated. In one article, written by Butlin some time ago, the percentage of those remaining well, three years after operation, without any recurrence of the disease, was twenty. At the time he gave his last clinical lecture, he had been going over the statistics again and got the percentage up to 26 per cent., or 27 per cent., remaining well after three years, or dying during that interval of some other disease and without recurrence. This is a very small percentage of recovery, and one might question, is it worth while to undergo the serious operation, the danger, the inconvenience? The group of cases which we have here before us is the best answer. No. 1 is recovering with only slight inconvenience; he can eat solid food, and speak distinctly; No. 2, is much more serious, but if all goes well he will make a recovery, though it will be but a poor one; already he is running down hill, has more or less pain, more or less difficulty in talking and eating, and his duration of life if unoperated upon is short. No. 3. is a case in which a year ago something might have done, and you see now the natural course of the disease when left to itself.

The next question that comes up is: Cannot the results be much improved? I am perfectly sure that this is possible, and I wish to impress this upon your minds,—the thorough investigation of all conditions which occur in the mouth. Do not pass them over. With our present knowledge that cancer is primarily a local disease; with our increasing experience with pre-cancerous conditions; with the clinical demonstrations before us of its spread through the lymphatics, I do not see why we cannot obtain 75 per cent of cures instead of 75 per cent of failures. The success of the surgeon is largely dependent upon the acuteness of the general practitioner. Nearly all patients consult the family physician in the first instance.

I think it would be well if the profession took a more hopeful view of epithelioma of the tongue. Results are bad, because the disease is in too many cases not recognized sufficiently early; because operative procedures in the past have not always fulfilled all the indicationes taught by the pathologists and morbid anatomists of to-day, and because physicians have not been keen to insist upon all their patients who had warts, fissures, ulcers on the margins of their tongues, getting an early diagnosis, and when malignant early removal. Although statistics show a large percentage of recurrences there are happily

conspicuous exceptions. Guinard reports a case where Verneuil removed the left half of the tongue in 1885, by an extensive operation involving the soft parts of the sublingual and submaxillary regions. This man remained in a state of perfect health both with regard to this general condition and the state of his mouth for 18 years, when he suffered from a recurrence in the right half. Protherat reported a case in which a woman had remained quite free from recurrence of cancer of the tongue during twelve years after removal of the left half of the organ. Roulier also mentioned another case of lingual cancer in which there had been no recurrence after operation during an interval of nine years.

I also show here a man on whom I operated seven years ago, on the 28th. of this month. I removed the whole tongue, the floor of the mouth, and the glands on both sides with very thorough dissection down below the bifurcation of the carotid. He is still in perfect health; he looks well, and is in business as a book agent. The floor of the mouth has so come up as to enable him to eat, and he can articulate much more distinctly than cases II. and III. with the tongue bound down with cancer.

These cases show that, after removal of cancer of the tongue, speedy recurrence is not always inevitable, and that the surgeon in dealing with the disease is justified in practising extensive operations.

We have every reason to believe that the meeting of the Canadian Medical Association, to be held in Halifax next August, will be very largely attended. Leading members of the profession in Quebec, Montreal and Toronto have signified their intention to be present, and we have good reason to expect a number from Winnipeg, the prairie country, and British Columbia. Throughout the Far West there are settled many practitioners who have gone from the maritime provinces, and who will, no doubt, make an effort to revisit their old homes and renew old acquaintanceships. The arrangements for the meetings of the Association, and for the entertainment of the guests have been very favourably received. The final announcement of railway rates cannot be made for some weeks, but we expect to secure the friendly co-operation of all transportation companies. It remains to secure the hearty and substantial assistance of each individual member of the Medical Society of Nova Scotia, which has assumed the honour of entertaining the visiting members of the Association.—*Maritime Medical News.*

THE

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THE INSANE IN CANADA.

No apology is necessary for devoting so much space to the address which was delivered by Dr. Burgess, President of the American Medico-Psychological Association, at the last meeting, which was held in San Antonio. It contains an account of the treatment of the Insane in Canada from the earliest times to the present day. That in itself is a valuable record; but most, the address is of value because it contains a fearless arraignment of political interference in matters of purely medical interest, and gives a statesman-like view of all those problems which are bound up with the question of insanity.

In respect of length of service, Dr. Burgess is the oldest medical officer in Canada, and he has not been unobservant these thirty years. What he has seen he has written down, and he sends it to the seven Provinces. He has something against each. To Ontario he says: Merit has little weight against political pull; two-thirds of the asylums are

directed by superintendents destitute of special training prior to their appointment. To New Brunswick he says: To carry out such legislation as is contemplated will be to sully the record of a province which has hitherto steadfastly declared against the incarceration of lunatics in prisons or poorhouses. In Prince Edward Island, idiots and imbeciles are sheltered in the poorhouse; British Columbia has no provision for them; Manitoba is still hampered by the constant and pressing necessity of providing sufficient room, owing to the mass of immigrants that has been flowing in during the last two or three years.

Dealing with the increase of insanity in Canada, Dr. Burgess shows that, while in 1891 there were 13,342 insane persons in a population of 4,719,893, in 1901 there were 16,662 in a population of 5,318,606, being an increase, in ten years, of nearly twenty-five per cent. in the number of lunatics, whereas the increase in the total population was less than thirteen per cent. This increase he attributes to the transportation to Canada of the refuse of foreign populations, and he cites documents to prove the statement. By the census of 1901, the population of Canada was 5,371,315, the number of foreign-born being 699,500; the total of the insane was 16,622, and of these 2,878 were foreigners. From these returns it will be seen that a little over thirteen per cent. of the general population—that is to say, the imported element—furnished over seventeen per cent. of so-called Canadian lunacy. Stated in another form, if the native Canadians alone are considered, there is one insane person in every 339 of the population; while the proportion among the foreign element alone is one in every 243. If further evidence were needed, during the year 1903 there were admitted to Canadian asylums 2,213 insane persons. Of this number 1,726 were born in Canada. The remaining portion, 487, representing 22 per cent. of the admissions, was foreign born. At Verdun 2,048 patients have been received since the opening of the establishment, and of this number forty per cent. were of foreign birth. In the same institution there are at the present time no less than thirty persons, in a population of four hundred and sixty, who, if subjected to anything but the most cursory examination, would never have been allowed to set foot in the country.

Evidence is accumulating on all sides as to the undesirable nature of much of the immigration which is arriving. Within twenty-four hours in the first week of last month 3,977 passengers landed at Quebec, and 331 were detained for various causes by the examining physicians.

Dr. Burgess's address does not afford pleasant reading to Canadians, but he has done the country an inestimable service in revealing our defects to ourselves and to the rest of the world.

THE EARLY DIAGNOSIS OF CANCER.

Students of medicine and practitioners at large cannot hear too much upon the subject of Cancer, since much of the tragedy in professional life is bound up with the dreadful disorder. Within recent years there has been so much discussion upon the deeper parts of the subject, that the more obvious aspect has been neglected. The surgeons have been speculating upon the infectivity of the disease, and the influence of heredity. The pathologists have been searching for a specific parasite, one set affirming and another denying that it has been discovered. The therapeutists have been busy with an estimate of the influence of certain rays of light upon its growth; and we have heard too little upon the necessity of an early and exact diagnosis.

Dr. Armstrong has done well in recalling the mind to a consideration of the essential fact that cancer has a beginning; that it is primarily a local disease; that in many instances there is a pre-cancerous state; that it may be detected and that it may be removed. This is the message of his clinical lecture in the Montreal General Hospital, which is printed in this issue of the Journal for purposes of wider circulation. The lecture will recall the old days in that institution, when its great clinical teachers, Osler, Howard, Ross, Macdonnell, used to seize upon one theme, and, stripping it of all accessories, would present it in the simplicity of its truth. The lecturer made it clear that success in dealing with cancer rests primarily with the general practitioners. It is they who are first consulted about the trivial ulcer upon the tongue, about the hardly palpable "lump in the breast." Upon the early recognition of the nature of the condition depends its successful removal. The best which the records show is twenty-five per cent. of recoveries and seventy-five per cent. of failures. Dr. Armstrong's declaration that these figures might be reversed is none too optimistic, if physicians are alive to their responsibility.

The series of cases which was presented showed so perfectly the results of early, delayed and late diagnosis, that a profound impression must have been made upon the student mind. The early case proved that recognition is not difficult, if only care and industry be employed by the physician who is first consulted. The general practitioner cannot hold himself guiltless if he allows a commencing cancer to become inoperable.

In the issue of this JOURNAL for May we had occasion to mention the retirement of Dr. F. W. Campbell from Bishop's College, to give some account of his public service and an estimate of his character. At the same time we were obliged to chronicle the death of his only surviving son, his eldest son having died not a year previously. To-day we desire

to supplement that account by the statement that Dr. Campbell died on the 3rd of May.

We record with much regret the death of Dr. Wainwright, which occurred in London on the 25th of April. Dr. Wainwright was a son of Mr. William Wainwright and a recent graduate of McGill. Death resulted from an attack of appendicitis and tuberculosis.

For the rather full account of the proceedings at the farewell dinner which was given to Dr. Osler we are indebted for the most part to the *Medical N·ws,* of May 6th, 1905.

AVE ATQUE VALE.

The departure of Dr. Osler from these shores to assume the position of Regius Professor of Medicine at Oxford was marked by a banquet in New York on the 2nd of May. The dinner was held at the Waldorf-Astoria Hotel, and it was attended by more than five hundred of his *confrères.*

Those who sat upon the right hand and upon the left of Dr. Osler were: Dr. James Tyson, of Philadelphia, Chairman; Dr. S. Weir Mitchell, of Philadelphia; Dr. W. W. Keen, of Philadelphia; Dr. F. Sandwith, of Cairo, Egypt; Dr. James R. Chadwick, of Boston; Dr. John S. Billings, of New York; Dr. F. J. Shepherd, of Montreal; Dr. A. Jacobi, of New York; Dr. John H. Musser, of Philadelphia; Dr. Edward L. Trudeau, of Saranac; Dr. Frederick C. Shattuck, of Baltimore; Dr. Stephen Smith, of New York; Dr. Frank Billings, of Chicago; Dr. W. H. Welch, of Baltimore; Dr. J. C. Wilson, of New York; Dr. E. G. Janeway, of New York; Dr. Francis Delafield, of New York; Dr. A. E. Malloch, of Hamilton; Surgeon-General George W. Sternberg, of Washington; Dr. D. B. St. John Roosa, of New York; Dr. William M. Polk, of New York; Dr. G. K. Dickinson, of Jersey City; Dr. Eugene F. Cordell, of Cleveland; Dr. William B. Gibson, of Philadelphia; Dr. John A. Wyeth, of New York; and Dr. Robert Fletcher, of Washington.

Dr. James Tyson was toastmaster. He is one of Dr. Osler's oldest friends, and it was he who wrote the letter which brought him to Philadelphia in 1885. Dr. Tyson said that Dr. Osler had, by reason of his career in Canada and in the United States, attracted the attention of physicians all over the country, and had had an influence wider than any other medical man of his generation. This influence, he said, was due not alone to his medical character, but to the breadth of his intellectual sympathies and to the classical, biblical and poetic lore with which his name had always been associated. These, he knew well

enough, to make them subservient to his purposes in the illustration of the great principles of medicine.

Dr. F. J. Shepherd, of Montreal, spoke of Dr. Osler in Montreal, and said in spite of the passage of thirty-five years since they graduated together in 1870, he looked scarcely older, and was not at all changed in disposition from the medical student that he at first learned to know. As a student Osler had been known, not for devotion to his books, nor as one whose main effort was to succeed in passing his examinations, but rather for his attention to the post-mortem room, and to whatever hospital work he could succeed in getting, though these features of the medical course were much less prominent than they were at present. While a serious worker, he was never looked upon as one of those who, in the modern term, was a "grinder," but, on the contrary, was known and loved for his social qualities, for the kindness of his disposition, and for the numerous friends that he made. In his young days there was the characteristic grain of humour that has so often been exhibited in after-life. While he did not graduate high in his class, there is especial note in the proceedings of the convocation, which shows how thoroughly his medical studies were appreciated by the faculty. A special prize was awarded to Dr. Osler's graduation thesis because of the originality it displayed and the research it evinced, and because of the collection of pathological specimens accompanying it, which were presented to the Museum. In the light of his after studies, it was interesting to note that some of these specimens, still in the college museum, concerned the ulcers of typhoid fever. When next Dr. Shepherd met Osler, he was engaged in writing a thesis for the Royal Society of England, of which he had become a highly honoured member. During his teaching days in Montreal, Osler was known for his devotion to his work and his faithful attendance at medical society meetings. His success as a teacher was in accordance with the efforts which he put forth, and the interest displayed in his work. He became an inspiration for his students, and was able to rouse interest in original investigation on their part, such as had never before been seen. His personal magnetism enabled him to gather around him a group of young men, all of whom felt the precious stimulation of his own interest in all medical problems. In other words, even in these early days before he was thirty, Osler displayed the qualities which later were to make his influence felt far and wide in the medical profession in America. He did not allow his practice to trouble him very much at any time in Montreal, and if he kept office hours, those at the college were not particularly aware of the fact. He never kept a chariot,

and, as he used to say himself, this was probably for the benefit of mankind, since those who ride in chariots kill their hundreds, while those who walk kill only their tens. His influence for good over the students in Montreal was felt far beyond the domain of their scientific education, and there was many a young man who felt that he owed to Osler the turning point in his career that made him realize the value of high ideals in life. It was no wonder that he left Canada then with the good wishes of his colleagues in the college, of his students, old and recent, and of the medical profession who had learned to value him. Now that he had united the profession of the United States and Canada in the sympathetic qualities of his genius, his Canadian brothers would welcome him back to the Mother Country, feeling that another stage of his evolution had been passed that would make him even more broadly useful.

Dr. J. C. Wilson, of Philadephia, spoke to the toast of "Osler in Philadelphia as a Teacher and Clinician," and said, in part: We cannot think of Dr. Osler in Philadelphia without thinking of him before he came to us and since he left us. His whole previous career was a preparation for his work there; his half decade of work there was, it now seems, a necessary period of training for the great decade and a half at Johns Hopkins, and the rounded half century since he left off knickerbockers a complete and progressive course of development on this side the Atlantic for the crowning period of an illustrious life upon the other side. No part of it could have been left out. Shakespeare's, "Home-keeping youth are ever dull of wit" has the fault of most sweeping generalizations. It is true, they mostly are. But not always. It depends upon the home. Populations have left New England, but who ever heard of anyone leaving Boston? Yet the Boston wit retains the old flavour. From most other places the bright spirits migrate. It has been said that the test of the true American is the impulse to move on. If this be true, Dr. Osler is the very type of an American. And the remarkable thing is that the further he moves the more he is missed. There is no authentic record of the state of mind of that far settlement of Ontario which he left in early infancy, nor of the nature of the repast by which his departure was celebrated. But when he left Toronto there were tears and sorrow and something to eat, and when he left Montreal, the same with singing, and when he took his departure from Philadelphia we had emotions which we could not suppress, together with terrapin and champagne; and now that he is going to leave the country there is universal sorrow and the largest medical dinner ever cooked. Yet there he sits, the embodiment of that imperturbability which he has so charmingly de-

scribed as a medical accomplishment, but which we know to be essential to the mental make-up of a peripatetic philosopher.

I may be permitted to speak of Dr. Osler in Philadelphia from two points of view: First, the influence of our quiet Quaker life upon him, and, second, his influence upon us.

First, then, we at once sought to make a practitioner of him. But of that he would have none. Teacher, clinician, consultant, yes, gladly; but practitioner—no! and that with emphasis. This was partly due to his knowledge of affairs, partly to his temperament. One star differeth from another star in glory. His light was to be bright and guiding and seen of all men. Not for him the dim and shaded light of the sick-room, the patient daily service to the weary sufferer, the tiresome round of daily calls, the vexations failure of the approved method to accomplish the desired result. He recognized his *metier* and carried out his plan. And this gave him time and opportunity and of both he made supreme use.

To an institution traditions are what character is to a man. The traditions of the University of Pennsylvania deeply impressed him. Morgan, Shippen, Kuhn, Rush, Caspar Wistar, were to him living personalities. His actual associates were such men as Agnew, Stillé, Leidy, Pepper and others whom we all know. The lives and characters of these men were not without influence upon the young Canadian, trained in the best way by association with men like Bovell, Howard and Ross, and familiar with the best methods and results of British and Continental Medicine.

Not less important was his connexion with the College of Physicians, with its cherished traditions and magnificent library. Nor is the part played by the Pathological Society to be overlooked. Here he brought his best work, the result of long and keen study, illustrated by the findings in the post-mortem rooms at Blockley, and always met in large measure the sympathy and admiration of the younger men.

So from point to point during the five years he was with us, at the best period of his life, he found the stimulus of tradition, of opportunity and of appreciation.

What did he do for us? He made himself agreeable to the older men and demonstrated to the younger men how medicine should be learned and taught. He broadened our conceptions in regard to the inductive method in medicine. Facts, facts—always the facts. The facts of the ward, of the microscope, of the laboratory, of the post-mortem room. He made it clear to some of the younger men who are now reaping the reward of their work that it is not necessary for every man to be a practitioner in the ordinary sense, but that long

years of hospital and laboratory work constitute a better equipment for the teacher and consultant. He inspired his students with enthusiasm for letters that taught them the rare rewards that come of searching the medical scriptures. He showed that in the democracy of our profession any man is free by a principle of self-selection, to attain the most coveted post of distinction and honour. He pointed out not only to us but to all men how fine and noble the profession of medicine is for those in it who are fine and noble.

He ornamented his discourse with quaint allusions to Holy Writ and The Pilgrim's Progress, but did not in those days say much about Montaigne; and the Religio Medici, and rarely alluded to Plato or Marcus Aurelius. Nevertheless he helped some of us to do a little thinking.

At length, after the fashion of the nautilus, he builded a more stately mansion and left us. We would have fain kept him. But that could not be. Without him the Department of Clinical Medicine at Johns Hopkins, mother of many teachers, might have been childless.

The Old World has given to the New many and great physicians. But these gifts have been returned not so much in number as in kind. The father of Brown-Sèquard was a Philadelphian. Marion Sims passed many years and did much of his best work in London and Paris, and now to the list is added another imperishable name.

I asked a bit ago who ever heard of anyone leaving Boston. There is one famous case—a Boston boy who became the greatest American. There are points of resemblance between that great philosopher and this great physician. In both are manifest vigour of body and intellect, untiring energy, unflagging interest in things and men, manysided knowledge with the wisdom to use it, that quality known as personal magnetism and the gifts of leadership. Philadelphia is fortunate to have been the home of Franklin and the abiding place of Osler.

There are many things that I could say of Dr. Osler, were he not here, that I will not say in his presence. What we leave unsaid he must take for granted. When we are deeply moved we do not say the thing that is next our heart. We take refuge in commonplaces, in persiflage. It is an Anglo-Saxon—an American trait. I speak not as a Philadelphian, but as an American, when I say that it is a good thing for us that he came amongst us. Not only by precept, but also by example, has he been an uplifting influence in our professional life. How far-reaching that influence is this company attests. There are men here who have crossed a continent to break bread with him tonight. The source of that influence is to be sought not merely in his accomplishments as a physician, not in his learning, not in his

wisdom, not even in his well-balanced and buoyant temperament, but in that basic principle which all recognize but none can define, which for want of a descriptive name we call character. It is character that tells and to character all things are added.

Now that he is going away we note that he has a trait that so many of us lack—greatness in little things—method, system, punctuality, order, the economical use of time. These have been the handmaids to his greater gifts. These have enabled him to widen his usefulness to lands beyond the seas.

"Seest thou a man diligent in his business? He shall stand before kings."

Dr. William H. Welch, of Baltimore, spoke to the toast, "Dr. Osler in Baltimore, Teacher and Consultant." He said that it was always hazardous for contemporaries to attempt to pass judgment on those with whom they had been brought intimately in contact. It always seemed worth while, however, that a generation should realize what it considered the value of the work of the men whom it most admired and the reason for that admiration. It would indeed be a precious document if we could have some idea of how much the medical men of his generation thought of Sydenham, and if we could have some notion of the way in which they regarded his ideas, practical, scientific and ethical. We are then making history for a future generation, and there is no doubt that the man who is being honoured to-night exemplifies the highest ideal of the medical profession in his generation. When sixteen years ago Dr. Osler came to Baltimore, the main purpose of the faculty was that the hospital should be an integral part of the medical school, and that opportunities should be afforded for higher clinical training. It seemed for this purpose that students should be made a part of the machinery of the hospital, and it is to Osler that the working out of this part of the plan is due. This indeed represents his contribution to medical teaching here in America. He had stood out originally for a broader preliminary education, for the improvement of medicine than had been the custom before, though he had realized also that many of the men who had done well in the past had succeeded in doing so even with the drawback of defective education. When it was announced that only those holding college degrees could be admitted as students at Johns Hopkins Medical School, he said jokingly, "Dr. Welch, it is a fortunate thing that you and I came in as members of the faculty, otherwise we might not be able to secure admission to the school at all."

His most striking contribution to the life of Johns Hopkins has been

the interest which he has aroused amongst the students, and the personal influence which has enabled him to bring out in them the best of their intellectual and moral points. It is no wonder that his students love to call him Chief, for even the medical profession of the country has learned to have something of that strange feeling toward him, and he has done more than any other American medical man of our generation to bring harmony into our professional ranks. The spirit of friendly cooperation which characterizes the medical societies of to-day is due not a little to Osler's incentive and to his genial qualities. His personality was constantly felt as that of a friend rather than a teacher, and his friendliness was marked by some delicious traits of humour. In Baltimore, he will be very much missed for this as well as for his great teaching qualities. No more will Dr. Thayer come home at one in the morning from some medical meeting to find the placard on his door announcing that he does medical practice for fifty per cent. less than anyone else in the neighbourhood, and when Dr. Opie comes to town, there will be nobody to tell the reporter of his distinguished athletic prowess, the many medals that he holds for athletic events. Many a joke has Osler played on the reporters, but they have more than repaid him in recent times, although it was all unconsciously.

Dr. Abram Jacobi, of New York, spoke to the toast, "The Author and Physician," and said: Years ago, on some public occasion, the subject of to-night's onslaughts commended me for having passed six years of my post-graduate existence without writing, or rather publishing a single line, and seemed to congratulate those whom it might concern, upon my discreet literary behaviour. Him, however, I praise for having written and not ceased to write these several decades; for him art has certainly been long, and opportunities he has not allowed to be fleeting. Indeed, the better part of an afternoon I have spent at the library of the New York Academy of Medicine in the pleasurable occupation of copying the titles of his books, and lectures, and addresses, and pamphlets, and papers.

But lo and behold my disappointment. Part of his books, of which there are, after all, only a dozen or thereabout, in fifty or more editions, he has not even produced himself. For you will admit, and he must confess, that it is only the first editions that should be credited to the author; all the subsequent ones are due not to him, but to the greediness of the public. There are even those who pretend to know that he is no better than a tyro in publishing, in that he never had title pages ready for binding, after every fifty sales, with the inscription: "second thousand," "twentieth" or "ninetieth thousand."

Of cyclopædias and translations he kept going or aided in keeping going, I counted only fifteen; his shortcomings, however, are most surprising in connexion with his sterility compared with the rest of the world's journalistic output. We take in the New York Academy's library one thousand medical (excuse the word, it does not always fit) magazines; the affliction of the Surgeon-General's library is still more deplorable. Now imagine there are many hundreds of them to which Dr. Osler never contributed so much as a line, or as a "how do you do." Indeed, I could not mention the names of more than forty (British and German included) that can boast of his name on their indexes.

You all remember that your friend Horace, when you were young with him, said it was difficult not to write a satire. On the strength of that he found it easy to write as many as eighteen and cut right and left. Our criticism of our guest should, however, not be altogether adverse; indeed, there are six hundred here who are of the opinion that no encomium heaped on this friend of ours exaggerates his deserts. Still I know how to excel Horace, for though it be never so difficult not to pronounce a eulogy, there will be no eulogy of mine here to-night.

I want our guest to feel comfortable among us. That is why I shall become as little personal as possible; and as the occasion is propitious and you are bound not to interrupt me, except on the strongest of provocations, I shall merely try to draw the picture of a medical man such as I have carried in my mind all my life as an ideal to be coveted but never to be realized by any but the physician whom, provided he is at the same time a "philosopher," such as Plato calls "godlike."

Let us imagine a boy with a healthy body, a sturdy heart and an open mind, with as thorough a general, in part classical, education as the training of decades afford. His information is drawn from books and through his trained senses. That young man's inclinations will be toward natural sciences, anatomy and biology; in his clinical studies toward ætiology. Perhaps he remembers from his Aristotle, that "whoever sees things grow from their origin, will appreciate their nature and beauty" and is slow to stop before a problem that appears to be beyond solution. His clinical work as a student and a graduate will be carried on upon the same lines. In late years his hospital will continue to be a school to him, but at the same time a temple, at whose doors he will leave behind him selfish motives; he will give the same time and attention to the poor that he bestows on those outside; where he looks for knowledge he will do so without making the patient recognize that he is a means to an end; he never forgets that the poor

in a hospital, cut off from the world, has nobody to rely upon but his doctor; and his soul goes out to those who suffer most. Indeed, let us of the hospitals not forget that. In that way, two thousand years ago, Christians were made, and nowadays socialists and philanthropists. Many of those who greet us with hungry looks are dying or going to die.

In his private relations he will prove what he is, a gentleman. The Molière period of wigs, and big talk, and sophistical bravado, the food of the credulous, has, or should have passed. Still, you know there is much credulity left among the well fed classes whose education is limited to what their mental blinders allow them to see, inside and outside of legislatures. There would be less of it if medical men would talk to the people less Greek and Latin after the fashion of an ill—or over-trained nurse, and more common sense in an intelligible language. Indeed, it is easy to explain in simple words what we so clearly understand ourselves, even to a legislative committee solemnly considering the needs of the people.

While doctoring with therapeutics, remedial and other, our man will sustain his patient with words and looks coming from his heart, making no cheerless prognoses within hearing, and though his own temperament be gloomy, not letting the patient suffer from that source. For, indeed, there are those who, like Osler's friend and companion, Thomas Browne, are of the opinion that "mundus non tam diversorium quam nosocomium videtur, moriendi potius quam vivendi locus." The world is less a place of delectation than a hospital, more a spot to die than to live in. In consultations, before and after them, he cannot help being strictly ethical. While he recognizes his duties to the patient, he owes regard and respect to the colleagues. The complaint you sometimes meet in the lay public, that there is too much etiquette among doctors, is flimsy. I wish there were more of it. No patient was ever harmed by the attendant or consultant behaving like what they are, or should be, a gentleman. A consultation should be a pleasure, a lesson, and a support to the attending physician. What our friend practises himself he will teach his students in few words, but incessant examples. Perhaps he remembers his Seneca: "Longum iter est per præcepta, breve et efficax per exempla." Precepts travel slowly, examples swiftly, by a short and efficacious cut. There was my good old Frederick Nasse; his kind looks and words, his gentle smile—they have all gone these fifty-four years, but are ever present to my mind. At the bedside, in the quarters of the city poor, or in the wards, he was the friend of the sick, our friend, with the same kindliness, geniality and urbanity that have since warmed my soul in the hospital wards of Johns Hopkins.

As he instructs students, so he teaches his colleagues in the profession and in professional chairs. In so doing he is always kind, but not always in *their* way. Amicus Plato sed magis Amicus veritas. He loves Plato, but what he loves more, is truth. As a member of medical societies he is active, no committee work is shunned though a smaller man might do it, nobody is more energetic in filling the programme of an evening, nobody more conscious of the good medical societies can do to themselves, their members and the public, and nobody more eager to disseminate his own convictions of their important functions.

This teaching, however, is not limited by the fences of his acre or his town. He is of the apostles who is told to travel and instruct and edify. He goes round about the villages teaching. He is here and there and everywhere obeying the invitation of those who want to look into his eyes and listen to the spell of his voice. A thousand miles are to him like one. To him medicine is no private or narrow business; he is the statesman in medicine which to him is not a trade, but a vocation and a religion.

I take the man I speak of to be an American, one of us. He looks about and finds it is not all that is good. Having spent his labour, time and genius on improving his facilities of teaching and learning, he may succeed to the extent of his own locality and school, but he cannot change what must be brought about by the slow progress of laborious and general evolution. When he says publicly and as often as he thinks it may do good, not that we have no great men and efficient teachers, but that clinical facilities and methods of almost all our undergraduate schools are behind what they were in Europe fifty years ago, he is found fault with, perhaps ostracised. The least that is said against him is that he betrays our secrets to foreign lands. They forget that it is not he that betrays our conditions, it is our students, our young graduates who, by crowding into our own post-graduate and European clinics proclaim as it were from the housetops that they came to seek what they lacked at home. You must have noticed that the emigration to Europe of our laboratory students is no longer as numerous as it was years ago, but the search for clinical advantages has not abated. So if you meet a preacher in the desert, do not stone him. In ten years, or twenty, we shall admit he was right. Perhaps it may dawn upon some of us that what we took for invective, was the sensational lie of a penny-a-liner spy, and what our distrust mistook for a frown was the pity and sympathy of a humourist.

As he works for the future so he looks back into the past. A science, a profession is best understood when studied in its origin and

gradual unfolding, like the human organism, which is never comprehended except through the study of the embryo and the child. The history of medicine is in him, however, only a link in the chain of human events, one of the most important parts of universal culture, in which wars and kings are only upheavals and incidents. That is why it should be studied by the people at large as a part of their education. It will be understood when presented in a comprehensible form. You all remember the classical histories written by William Osler on the internal medicine, and by W. W. Keen on the surgery, and R. T. Chittenden on the physiological chemistry of the nineteenth century, and published by the *Sun* four years ago. My medical ideal does much more. The loving connexion between medicine and the world, between the profession and the public is not platonic, it is active. Being a conscientious citizen of the profession he feels his obligations as a citizen of the state and of human society. He will work for the consolidation of the profession, for the suppression of quackery and all other forms of infectious disease; for the improvement of our school system, our streets, our subways and water supplies, for the repeal of bad laws, and the introduction of good bills.

That is what your ideal medical man will do. Smaller men must be satisfied with performing only a share of it. But none of us here or elsewhere has a right to shun common duties. Next to performing great tasks is for us who cannot reach the highest aims, the ambition to work in their service. Ideals are not reserved for those who walk on the mountain tops of human existence. No man or woman should be without a heart, nor without an ideal, and the sense of responsibility to the Commonwealth of which they form a part.

Dr. Osler! Have I involuntarily drawn some, or many, or most of the outlines of your picture, or have I not. I do not know, but I could not help while speaking, beholding you before by mind's eye. Still, being neither an orator nor a poet, nor a *savant* like yourself, I know my language cannot reach my aspiration nor your deserts. Do not explain, or excuse, or deny, either seriously or humourously. Your natural gifts you are not responsible for, so there is really no need of an apology. The lifelong work you invested in your aims and ideals has ever been a labour of love and no hardship. You have not exerted yourself to earn thanks, and expect none. So when you enjoyed your incessant and fruitful toil we have sympathized and profited. When you, fulfilling the obligations to science, the profession and the world, found inscribed in the innermost of your heart, added to the riches of mankind, we have admired and harvested. Your character

and learning, your sound judgment and warm heart, your generosity and consistency have gained thousands of friends. Friends made by such as you are not of the every day's stamp. There is nobody here or outside that came near you that has not been attracted, improved and inspired by you. These are simple statements in the plain every day words of one who, being so much older in years than you, was glad to sit at your feet and will listen to you, no matter whether you are heard in Montreal, Philadelphia, Baltimore or Oxford. As a sort of explanation of your intellectual growth and success, I have heard you speak of your indebtedness to favourable circumstances and to the influence of your descent. Be it so, for as your friend, Thomas Browne, without, I believe, thinking of you, said three hundred years ago: "Non mediocris felicitatis est ad virtutem nasci"—"it is no mean felicity to be born with the imprint of virtue." So your heirloom has actually become ours, indeed; and we take pride in it almost like yourself. What your father and your good old mother, who are often on your lips, have done to shape you, they have done for us also. Tell her we send her greeting and the expression of our reverence and of our wish she may, as we do now and ever, enjoy her son long after this, her ninety-eighth year, and of our gratitude to her, the British mother of one of the greatest benefactors of the medical profession of America.

Dr. S. Weir Mitchell, of Philadelphia, then presented Dr. Osler with a translation of Cicero's "De Senectute." Dr. Mitchell said that the gift undoubtedly fulfilled one quality of the true gift, inasmuch as it was something that the givers would like to keep themselves. As to the appropriateness of it there could be no doubt, and indeed applause of the guests showed already that they realized its aptness to the occasion. One reason of its appropriateness is that Cicero must be regarded as an anticipatory plagiarist, since he had said in a famous passage of this essay, "It is very desirable for man to expire at the right time." As Cicero was probably about sixty years of age when he wrote this essay, he did not state as definitely as the newspapers claim the guest of the evening to have stated just what was the right time for a man to expire. As to his own selection as the presenter of the gift, Dr. Mitchell said that he was the youngest man present, and was therefore naturally chosen to make the presentation, to the most venerable member of the American medical profession. It concerned a subject which the ladies never attained, and the translation had been made by James Logan, the friend and adviser of William Penn. The printing of the copy had been done by Benjamin Franklin, and it bears the date 1744.

Franklin said very appropriately in the preface that as it was only old men who would be apt to read an essay on old age, therefore the

type selected had been especially large, in order that no straining of the eyes might remind them of how much the departing years were taking away from them. This was a story told by the kindly old pagan philosopher of the declining years, the declining years in the sense perhaps that one is compelled to decline all the good things and yet find many subjects for consolation in the years as they go.

Dr. Osler, in replying, said that he could not but feel that the happiness which came to him in the midst of all these manifestations of friendship was undeserved. He felt that he had been singularly blessed in the friends that he had made. He would yield to no man who claimed to have more or better friends than he had, and for this he could only say, "God be praised!" If success consists, he said, in getting what one wants, and being satisfied with it, then, indeed, success had been his since friends so precious had come to him. Always, however, there had been the feeling of lack of desert of the privileges that had come. When the invitation to present himself as a candidate to the position of clinical medicine at Philadelphia reached him at Leipzig, Dr. Osler was inclined to think it must be a joke. He was not sure with regard to it until two weeks later a cablegram reached him to meet Dr. Weir Mitchell in London. Boston measures men by brains, it is said, New York by bawbees, and Philadelphia by breeding. It was Mitchell's task to test his breeding. He did so by having him eat cherry pies, and noting how he disposed of the stones. As Osler disposed of them discreetly the breeding question was settled. Friends had spoken during the evening of his influence on Philadelphia. What he felt as one of the most precious things in his life was the influence of Philadelphians on him. To have been the colleague of such great men as Pepper and Leidy and Agnew and Ashurst, was of itself a liberal education in medicine, a suggestive influence in medical education and in teaching, whose power could not be exaggerated. At Johns Hopkins there had come the opportunity to do for America what had been so well done in Germany, to make a great teaching clinic. If he had accomplished anything, he felt it was by the introduction of Teutonic methods into American medical education.

Dr. Osler, continuing, said that even on an occasion like this he felt that he must say a word with regard to the hospital opportunities that are being wasted in America. In every town of 50,000 inhabitants in this country, there could be a good medical clinic from which would be issuing regularly distinct contributions to medical progress. For this, however, there must be a change in hospital equipment and methods of appointment. If a few men guided the destinies of hospitals instead of many, and if they were not too often the bone of

political contention, then much might be accomplished that now failed. There would have to be properly paid assistants who would remain as resident physicians at the hospital, not for a year or two, but for many years. If this were done, then America would accomplish more for clinical medicine in five years than Germany could do in ten.

He himself had cherished three ideas: Do the day's work well; act up to the Golden Rule, and cultivate equanimity. To do the day's work well may seem too practical to be an ideal, but it is an ideal. To let the future take care of itself, and to do the thing in hand as well as possible represents the only hope for the successful accomplishment of good work. The Golden Rule is an ideal only if it is applied not alone to the professional brethren, but also to patients and to all those with whom one comes in contact. As for equanimity it is the only thing that insures anything like happiness in life. Equanimity enables a man to take success with humility, to enjoy even his friends with humility, and to suffer sorrow and trial without being cast down.

He felt that he had made mistakes, but they had been of the head and not of the heart. He had loved no darkness, he had sophisticated no truth. He had allowed no fear to paralyze his efforts. He left his friends with sorrow and yet with feelings of profoundest joy over their manifestations of kindliness to him and his, and he felt that the bonds though loosened, were not severed.

Reviews and Notices of Books.

AMERICAN EDITION OF NOTHNAGEL'S PRACTICE; DISEASES OF THE BLOOD. By PROF. DR. P. EHRLICH, Director of the Royal Institute for Experimental Medicine, Frankfurt, a.M.; PROF. K. VON NOORDEN, Professor in the Medical Clinic of the Frankfurt City Hospital; DR. A. LAZARUS, Privat Docent in Internal Medicine, University of Berlin; DR. F. PINKUS, formerly of the University of Berlin. Edited, with additions, by ALFRED STENGEL, Professor of Clinical Medicine, in the University of Pennsylvania. Authorized translation from the German, under the editorial supervision of Alfred Stengel, M.D. Philadelphia and London: W. B. Saunders & Company, 1905; pp. 714; J. A. Carveth & Co., Toronto. $6.00 net.

The translation of the Nothnagel series of monographs, known generally as the Nothnagel System, into English is from every standpoint a splendid idea, for it may be said that more authoritative books on their respective subjects are not in existence; this is true of the works on Hematology comprised in this volume, and it will be of great use

to the English-speaking medical world to have this series of works upon the blood at its command. Since the work here translated was published some time ago our review lies not so much with the work of the original authors as it does with the manner in which the translators and the Editor have presented their part. Classic as is the work of the authors, it is not to be expected that the last five years, being as they have been rich in all that pertains to the blood, should not have challenged some of the statements, and there are at the present moment many assertions that have to be modified or amplified. This bringing up to-date of the work, has been the province of Professor Stengel, and our idea in reading the work is that he has done it remarkably well. The first part of the book consists of the normal histology of the blood, by Ehrlich and Lazarus, and this, of course, is a fertile field of dispute; it can not be absolutely stated, at this date, what are the real sources of many of the different kinds of corpuscles, and the task of presenting fairly the recent work upon the granular leucocytes, mast cells, etc., is a very great one, but has been adequately done. The second part, dealing with the anæmias from a clinical standpoint, is by Lazarus. Acute post-hæmorrhagic anæmia in the original is so well-rounded an article that it requires but few additions, and the same is true also of the simple chronic anæmias, while pernicious anæmia is more fully interspersed. Our impression on reading this article was that it is as yet more of a compilation of existing knowledge than a definite attempt at authoritative statement, and such must of necessity be the case, for we are yet entirely in the dark as to the etiology and real significance of this interesting malady.

Von Noorden's article upon chlorosis is very concise in the matter of treatment, where he insists upon the necessity of the administration of a sufficient quantity of iron, viz., one and a half grains (0.1 gr.) of metallic iron daily, to be continued through six weeks (for severe cases) without sudden cessation; this, from the German standpoint, is best attained at the Chalybeate Springs. Special mention of this part of the article is not, of course, to the disparagement of the rest.

Acute and Chronic Lyphatic Leukæmia and Pseudo leukæmia, by Dr. Felix Pinkus, and Myeloid Leukæmia, by Lazarus, round up the series; in connection with the treatment of X-rays, the authors and editor are not very sanguine of better results than by the older methods. Mention is due to the bibliography which accompanies each section, which taking note of only the more important works, yet runs in every case into the hundreds of references, and increases greatly the use of the book to those who deal deeply with any of the subjects concerned.

CHEMICAL AND MICROSCOPICAL DIAGNOSIS. By FRANCIS CARTER WOOD, M.D., Adjunct Professor of Clinical Pathology, College of Physicians and Surgeons of New York. New York and London: D. Appleton & Co., 1905. Price, $5.00. Morang & Co., Toronto.

This book consists of 745 pages, 188 illustrations, and nine full page coloured plates. It is written chiefly for the clinician, and as a reference book for clinical, chemical, bacteriological and microscopical laboratories. It is the first attempt in the English language to gather together in one volume a complete and concise statement of the work which has been done in aid of clinical diagnosis by the chemist, bacteriologist and histologist. There is evidence on every page that the author is an experienced teacher of the subject, and evidence also of personal experience of the various tests and procedures described.

The first part of the book consists of a study of the blood, its physiology, chemistry, morphology; it is followed by a study of leucocytosis, and the modifications of the blood in the various diseases under the head of special pathology of the blood, and general pathology of the blood; a section on diseases in which the blood contains parasites, and finally the bacteriology and serum reactions of the blood. Nearly one-third of the entire contents of this volume is devoted to the study of the blood. Among the recent advances in technique in blood examination we find Wright's chromatin stain carefully described, as well as Ruediger's serum test; Sahli's recently described hæmoglobinometer has been added to the list of those which we already know; it is an improved form of Gower's instrument. Oliver's hæmoglobinometer is also described, and its proper place as an instrument for the determination of the colour of the blood has been ascribed to it. Strzyzowski's modification of Teichmann's method of obtaining hæmin crystals, which is noticed for the first time in an English textbook, removes many of the difficulties which attends the production of these crystals. Another new procedure recommended in Donogany's spectroscopic test for blood, which depends upon the forming hæmochromogen.

Part Two consists in the study of the gastric contents, in which very useful information is given concerning the methods of obtaining the gastric juice, the different test meals, the microscopical examination of stomach contents, and a very thorough consideration of the chemical examination including, not only the detection of the free acid and its estimation, but also the detection and estimation of the ferments. Also, there are most excellent sections on the diagnostic value of the determination of hydrochloric acid, of the enzymes and the organic acids. Methods for testing motility and absorbtive power of the stomach are also given in considerable detail.

In Part IV. the Parasites are fully considered, and very completely illustrated. The sputum, secretion of the oral and nasal cavities, etc., form separate parts.

As one would expect, the largest section in the book is devoted to the consideration of the chemical and microscopical examination of the urine. This section is most complete. The newer tests for and studies of the various constituents, and their clinical significance are discussed, and the newer, as well as the older technique, in the chemical and microscopical examinations is described in a very clear and practical manner. The chemistry of the urine is exhaustive, trustworthy and most instructive. The relative value of the different tests has been very justly estimated throughout. We are glad also to find that the recently modified Hopkin's method of determining uric acid is introduced in preference to the unreliable Heintz method.

An interesting chapter is added on the method of examining the efficiency of the kidneys, by the cryoscopic method and the methylene blue method.

An unusual study is added—the examination of transudates and exudates, the technique of the examination of cyst fluids; methods of animal inoculation; the cytology of pathological fluids, etc. A section which will be of special interest to pediatrists is one on the chemistry and microscopy of milk in reference to infant feeding.

An appendix gives an account of the apparatus, indicators, standard solutions, etc., required for the work, with very useful hints as to the methods of determining melting points, preparation of staining fluids, cleaning slides and cover glasses, removing dyes from the hands.

One of the best features of the book is the particularly well coloured plates which are unique in the accuracy with which the colour effects of the eosin and methylene blue stains are brought out. In one plate there are depicted 90 different normal and abnormal red and white blood cells, and another of special interest, at present, shows the phases of the development of the malarial organism. Every method of recent date, together with all discussions, has reference to the original articles; in fact every page has reference to original sources of information, making the book an especially valuable one for use in library or laboratory. It is too large to be used as a textbook by students; but certainly every practitioner who desires to be possessed of the most complete book on the subject of application of chemistry and microscopy to clinical diagnosis should have access to this valuable work. It should have a great influence in stimulating interest in the newer laboratory studies bearing upon diagnosis, and in calling attention to the value of the

results which chemical methods are capable of yielding. The appearance of so elaborate and comparatively expensive volume on the purely laboratory side of clinical diagnoses shows at least that the author and publisher believes that the medical public is beginning to regard a knowledge of exact laboratory methods essential to the mental equipment of an up-to-date physician. We wish Dr. Wood's handsome volume every success.

MALFORMATIONS OF THE GENITAL ORGANS OF WOMAN. By CH. DEBIERRE, Professor of Anatomy in the Medical Faculty at Lille. Translated by J. Henry C. Sime, M.D., Emeritus Professor of Genito-Urinary and Venereal Diseases in the Philadelphia Polyclinic. With eighty-five illustrations. Philadelphia: P. Blakiston's Son & Co. 1905.

A book of three chapters, one hundred and eighty-two pages, well, if somewhat conventionally illustrated. Chapter I., "Anatomy of the Genital Organs," is merely a recapitulation of the facts which appear in any text-book of anatomy or gynæcology, albeit the arrangement is good and the text not overburdened. "The Development of the Genital Organs" is dealt with in Chapter II. Here are only ten pages; the subject is treated in a most elementary fashion, and one searches in vain for any evidence of special knowledge. The more recent work of Marchand, Minot and Berry Hart is not even mentioned. The chapter on "Malformations of the Genital Organs" is the actual book. It makes interesting reading, for many cases are cited. The French literature upon the subject seems fairly well culled. Everywhere is seen the influence of the old master, Geoffrey Saint-Hilaire. On the whole, it is a readable book, and if the information it contains is not very new or complete, it fairly fulfils the ambition of the translator in being both "interesting and instructive."

THE EYE, MIND, ENERGY AND MATTER. By CHALMERS PRENTICE, Chicago. Published by the Author, 1905.

From such a statement as this: "We know that a large majority of cases of drink habit take their origin from nervous irritation resulting from eye-strain," one would be justified in concluding that the author had but a small fund of common sense, and was ready to be convinced upon very slender evidence. Probably Dr. Gould would not be prepared to go so far as that. A case is quoted of a "professional man who was addicted to thirty or forty strong drinks daily," and was cured of his intemperate habits by "fogging and prisms." We do not possess sufficient information to contradict the statement, but we hope it was

so. Many of the author's opinions involve a good deal of conjecture, and we shall not be tempted into the thankless task of denying them. Nor have we the intention of usurping the chair of the scorner of new doctrine. The illusions of this writer have a merit of their own: "In the absence of pessimism there is no such thing as incurable disease;" "the contagion of tuberculosis is a psychic poison," but we cannot give entire assent to his proposition "that it is easier to stop drinking than it is to continue it." This is a diverting book.

THE HISTORICAL RELATIONS OF MEDICINE AND SURGERY TO THE END OF THE SIXTEENTH CENTURY. An Address delivered at the St. Louis Congress, in 1904, by T. CLIFFORD ALBUTT, M.A., M.D., Regius Professor of Physic, in the University of Cambridge. London: Macmillan & Co., 1905. Price 2s. 6d. net.

This volume of 120 pages deals with a large theme. Dr. Clifford Albutt has possessed himself of an enormous amount of material, and he has dealt with it with rare literary skill. It is a new discovery that there is a history of medicine, as absorbing as that of any other science or art, and the author deals with it philosophically and artistically. The great names are passed in review, and the reasons are stated why they are held in remembrance. The book is one to be spoken of with respect and appreciation, and proves once more that a man may be a scholar as well as a physician. It also proves that when the unity of medicine is lost, it falls into sterility.

DENTAL SURGERY FOR MEDICAL PRACTITIONERS AND STUDENTS OF MEDICINE. By A. W. BARRETT, M.B. (Lond.), M.R.C.S., L.D.S.E. H. K. Lewis, London. 1905.

This pocket edition of general dental information is apparently all that the author claims in his preface. It supplies a great deal of useful information on the teeth and their treatment that does not, as a rule, appear in the usual medical course, and will therefore be of benefit to the general practitioner and students of medicine, inasmuch as the condition of the mouth in many cases has much bearing on general health. While it contains much that is of use only to the dental specialist, such as the correction of irregularities, the proper uses of different filling materials, methods of inserting artificial dentures, bridges, etc., it no doubt will fulfil its mission and take its place in the medical library.

INTERNATIONAL CLINICS. Edited by A. O. J. KELLY, A.M., M.D. Vol. I. Fifteenth Series, 1905. J. B. Lippincott Company. 1905.

An editor deserves congratulation who has so much material at his command as is contained in this quarterly, and sufficient skill to arrange

it so well. The volume contains seventeen important papers, besides a complete review of the progress of Medicine during the year 1904. In addition to this there are some fifty plates and thirty figures. We fail to note any reference to work which has been done in Canada, and this, in a book of over 300 pages, we take to be an error of judgment. The paper upon the treatment of Glenard's disease and that upon skin-grafting are important. A new operative procedure for the extirpation of the larynx is described by Francesco. Durante.

A Reference Handbook for Nurses. By Amanda K. Beck, Chicago, 150 pages. Philadelphia and London: W. B. Saunders & Company, 1905; J. A. Carveth & Co., Toronto.

Probationers and nurses might do well to have in their possession, Miss Amanda K. Beck's Reference Handbook. The pamphlet is well written—cleverly systematized and shows close observation of the sick-room and hospital régime. The pages devoted to the preparation of foods—and to the application of emergency remedies—should be carefully noted. The book can be recommended as both concise and comprehensive.

Practical Problems of Diet and Nutrition. By Max Einhorn.

We naturally look for something unusually good from the pen of Dr. Einhorn, and we are not disappointed in the new book on Diet and Nutrition. Such books are important additions to the libraries of all physicians, and Dr. Einhorn handles ably the matter of digestive disorders.

Transactions of the College of Physicians of Philadelphia. Third Series, Vol. XXVI.

Merck's Manual of Materia Medica, for 1905, seems to be a very complete and satisfactory handbook for the general practitioner. Special mention should be made of Part II. which gives a concise account of of the therapeutic indications—for various conditions and disease. The classification of medicaments and the table of doses are also valuable. The book is small, easy to handle, bound in black heavy cloth.

Medical News.

ONTARIO MEDICAL ASSOCIATION.

The twenty-fifth annual meeting of the Ontario Medical Association will be held June 6th, 7th, and 8th in the lecture hall of the New Medical Building of the Faculty of Medicine of the Toronto University, under

the presidency of Dr. Burt, of Paris. For many years the meetings occupied two days only, but in 1903 there was a three days' meeting. This was found so satisfactory that the Committee for this year has decided to follow the example. Among the invited guests who have promised to attend are Drs. A. J. Ochsner and W. B. Pritchard. Dr. Ochsner is surgeon to St. Augustine Hospital, Chicago, and Dr. Pritchard is Professor in the Post-Graduate College of New York.

The plan for a new General Hospital at the corner of University Avenue and College Street, Toronto, is under consideration by the City Council. It is proposed that the city shall secure the property on College Street from the Dental College east to the corner, and on University Avenue south to Christopher Street, in all about seven acres, as a site for the hospital. The cost will be approximately $300,000. The Ontario Government, it is said, has promised $300,000 more, in view of the increased facilities which will be provided for the hospital clinics for the medical faculty of the university. The hospital trustees themselves propose to raise $700,000, with which to erect a series of modern buildings.

Dr. Charles O'Reilly, for 29 years superintendent of the Toronto General Hospital, has resigned his position. In accepting the resignation of Dr. O'Reilly, it was arranged that it should take effect whenever most suitable to him. His salary will be paid in full up to the close of the present year, and in view of his faithful services for 29 years, it was decided to grant him a further retiring allowance of $1,000 per year for five years from the close of 1905.

A meeting of representatives of a group of four counties—Waterloo, Perth, Wellington and Brant—has been held to discuss the scheme for establishing a hospital for indigent consumptives common to the district named. The delegates agreed to resume consideration of the question on June 2, with a view to preparing a formal plan for submission to the County Councils interested.

The American Medical Association will hold its annual meeting at Portland, Oregon, from July 11th to 14th, 1905. It is expected that at least 2,500 members with their families and guests will attend the meetings, and preparations on a large scale are being made for their entertainment.

Plans and specifications are now ready to be tendered upon for the

erection of the Moosomin General Hospital. The whole will cost between $8,000 and $10,000, and the hospital will be the best of its kind between Brandon and Regina.

Dr. William Henry Johnson, of Fergus, died on the 18th April. He was surgeon Lieutenant-Colonel of the 30th Wellington Rifles.

Retrospect of Current Literature.

MEDICINE.

UNDER THE CHARGE OF JAMES STEWART, F. G. FINLEY, H. A. LAFLEUR AND W. F. HAMILTON.

EDSALL and GHRISKEY. "A Hospital Epidemic of Pneumococcus Infection. *Trans. Coll. Phys.*, Philadelphia, 1904.

In this article a remarkable series of pneumococcus infections is recorded. The first case was one of extremely grave pneumonia, and as he was only half conscious it was impossible to prevent his spitting about the bedclothes and floor. After his death the bedclothes were changed and the mattress aired. The day following, April 4th, a mild case of typhoid was admitted. A blood culture, 24 hours later, showed pneumococci, although no signs of pneumococcic infection were at any time present, unless a rather extensive bronchitis was of this nature.

Case III. was placed in the same bed on April 6th. This was a man with sciatica, who remained in the pneumonia bed for 36 hours and developed pneumonia less than two days after his removal. The crisis occurred on the third day.

Case IV. was one of tubercular meningitis, who was placed in the same bed a week after being in hospital. Two days later the temperature increased, with a leucocytosis of 14,000 and the respiration became rapid. Although positive evidence of pneumonia was lacking, it was suspected in view of the facts concerning the other cases.

Case V. An alcoholic, admitted April 14th, the day after *Case IV* died, and on the 16th developed pneumonia, the crisis followed in two and a half days.

Case VI. A mild typhoid, admitted April 16th, to a bed near the infected one, and again a blood culture showed pneumococcus infection.

The epidemic thus consisted of two, perhaps three, cases of pneumonia, and two cases in which pneumococci appeared in the blood without any sign of pneumococcus infection. A well localized source of infection was present in the first case and the short period of incubation corresponded with pneumonia.

The type of infection was extremely mild. Many writers refer to the virulence of epidemic pneumonia, but there are several instances recorded of a mild form, hence transmission should not be ruled out even in benign types of the disease.

The two cases in which pneumococcus infection occurred, as shown by blood cultures, and without evidence of disease elsewhere, are not without parallel. Proxhaska has reported four cases in which there was no pneumonia and no evidence of other local pneumococcic infection, except bronchitis, and in no case hæmorrhagic nephritis. Baduel and Gargagne, in a household of eleven members, some of whom were seriously ill, and others suffering from catharrhal affections, showed that pneumococci were present in the blood of all eleven cases.

A review of the literature of epidemic pneumonia makes it practically clear that infection may occur, (1) through widespread atmospheric dissemination; (2) through the agency of some local source; (3) through direct contagion from persons sick of the disease.

The chief evidence that contagion takes place in pneumonia is afforded by the large number of instances which have developed in a household after one of their number had contracted the disease. In many cases the person or persons acquiring the disease had slept in the same bed or room with the original patient. That even slight exposure may result in transmission of the malady is suggested by a recent observation by Spaet, when five individuals fell ill with pneumonia in from ten to twelve days after attending the funeral, held in the house, of an individual dead of the disease. The value of the inference is, however, in our opinion, impaired by the somewhat long latent period, and further, by the fact that the disease had been epidemic in the district.

The circumstances attending hospital epidemics, such as that recorded, form the most striking evidence of the contagiousness of the disease. Such epidemics are usually limited to a ward, and the probability that they spread by contagion is very great. Atmospheric conditions seem to be responsible for exclusive and widespread epidemics. v. Holwede and Münnick record an epidemic in a village of 400 inhabitants, chiefly among children, of whom there were about 50. As most of these had been kept at home during inclement weather and in widely separated houses, between which there had been no intercourse, it seems impossible to explain the origin in any other way but by atmospheric infection.

Evil sanitary conditions have been found in areas in which there were local epidemics, and interesting examples of this are quoted. Of late years it has been shown that the pneumococci may retain their

virulence for a considerable time in sputum, or in dust and earth. Sputum dried on linen and not exposed to sun light may continue virulent for as long as 45 days.

SCHWAB and GREEN. "A Case of Cerebro-Spinal Rhinorrhœa." *Am. Journ. Med. Sc.*, May, 1905.

GLYNN. "A Case Simulating Intracranial Tumour, in which recovery was associated with persistent Rhinorrhœa. *Brit. Med. Journ.*, 1905, p. 871.

In 1899 St. Clair Thompson published an admirable monograph in which he records twenty cases found in medical literature of an affection whose most conspicuous symptom was the spontaneous escape from the nose of cerebro-spinal fluid. Of these twenty cases, making 21 with his own, 17 manifested cerebral symptoms, and in 8 there were retinal disturbances. The ophthalmoscopic picture was strikingly similar in alloptic neuritis or post-neuritic atrophy being present, and with this, dilated pupils acting sluggishly to light. The visual fluid was contracted, and vision lost or limited to perception of light.

The fluid in the majority of cases flowed from the left nostril. It varied in quantity from 8 to 24 ounces in 24 hours. Headache and other cerebral symptoms often ceased with the onset of discharge. Thompson suggested that internal hydrocephalus was the cause of the cerebral symptoms, and Glynn believes his case to have been of this nature. In this instance the patient, after striking his head against a beam, temporarily lost consciousness and vomited. In the following twelve months he suffered from attacks of headache, giddiness and vomiting, lasting three or four days at a time. He had also diplopia and weakness of the right external rectus, the pupils were dilated but reacted promptly to light. Vision was normal with the exception of slight concentric limitation of the field of vision, and there was marked optic neuritis.

These symptoms persisted with periods of improvement, and there were added weakness of the legs and a tendency to fall forward, giddiness on stooping, weakness of the arms and volitional tremour, dilatation of the pupils and a nystagmus. His intelligence deteriorated, and on three occasions he had epileptiform convulsions. Sight failed greatly and there was incontinence. Five years after the onset of the first symptoms fluid began to escape from his right nostril, when he immediately began to improve. His sight was restored, optic neuritis disappeared, his mental vigour and muscular strength returned, and with slight loss of energy and memory he remained well. The rhinorrhœa

however persisted, the fluid having all the characters of cerebro-spinal fluid.

The author regards his case as one of acquired hydrocephalus. Some of the symptoms suggested a cerebellar tumour — the nystagmus, ataxy and the reeling gait. The protracted course of the symptoms was, however, more suggestive of hydrocephalus than tumour.

Although the channels followed by the escaping fluid must remain a matter of surmise, it seems probable that the fluid after escaping from the lateral ventricles forced its way forward and along the lymph channels of the olfactory nerve to the nose, an hypothesis which gains some support from the fact that there was anosmia of that side.

Schwab and Green's case was a woman of 32, whose chief symptom was a continuous watery discharge from the right nostril. Eight years previously she suffered for a year from fatigue, frequent headaches, insomnia and inability to work. Four years later there was a sudden paralysis of the left leg, whilst the rhinorrhœa started two years later, being a continuous dripping from the nose of fluid having the characters of cerebro-spinal fluid.

Examination showed evidences of neurasthenic hysteria and there was post-neuritic atrophy of the optic nerves and limitation of the visual fields. The visual acuity of both eyes was well preserved, and the pupils were large and reacted to light. The writers regard optic nerve injury as probably present in a majority of the cases, if, indeed, it is not an essential feature of the disease.

C. J. Martin. "Remarks on the Determination of Arterial Blood Pressure in Clinical Practice. *Brit. Med. Journ.*, p. 865.

The estimation of the arterial pressure by the finger is liable to considerable error. The amount of pressure required to obliterate the artery is estimated by the muscular sense, and a perfectly educated muscular sense gives a good idea of the force applied. A much greater degree of pressure is required when a large area is compressed, hence the force used is much greater in the case of a large artery. Although the pressure in the small carotid of a rabbit is approximately equal to that of the larger one in the dog, yet a much greater degree of muscular pressure is required in the latter instance to obliterate the pulsation.

The writer believes that the systolic pressure only can be taken accurately without opening the vessel. The degree of pressure required to compress the artery itself is very small, about 2 mm. in a healthy vessel, and 5 mm. in arterio-sclerosis; this fact is easily demonstrated by an experiment which is described and figured.

The writer advocates an apparatus like the Riva-Rocci, in which a bag completely surrounds the limb, in preference to those in which a superficial artery is compressed. To obtain accurate results a broader band than is usually employed should be used as the narrow band gives too high readings.

PATHOLOGY.

UNDER THE CHARGE OF J. G. ADAMI.

The Journal of Experimental Medicine.

With the February number of this journal, we have the periodical entering on a new history of its life. As is stated in its preface, the *Journal of Experimental Medicine* will hereafter be published under the auspices of the Rockefeller Institute for Medical Research, and under new editorial management. It will, as heretofore, be devoted to publication of original investigations in the domain of medical sciences, and will, at the same time, serve as a medium of publication for the institution by which it will be issued. The articles published in this number are such as have accumulated during the two years of its suspension. The publication of the journal appears under the names of Simon Flexner and Eugene L. Opie.

PHILIP HANSON HISS, JR. "Differentiation of Pneumococcus and Streptococcus."

The author points out that the pneumococcus and streptococcus can usually be differentiated by their morphological characters; however, certain cultures of these organisms at times approach the type of the other so clearly that it may be impossible to identify them by their morphology alone. The further fact that the cultural characters of the organisms are so nearly alike, that there is much uncertainty in distinguishing them. We are well aware how related organisms, which in themselves may possess distinctive qualities, have a series of intermediate micro-organisms with characters of both. The number and varieties of bacteria intermediate between the B. typhosus at one end and B. coli commune at the other is legion, and when a line in the chain of micro-organisms uniting these two is missing in nature, we can supply it by altering the characters of one by "forced growth." The condition of affairs is closely simulated by the pneumococcus and streptococcus pyogenes. One chief morphological difference has been the presence of a capsule in the former, and in its lancet shape. However, it is not infrequent that a capsulated streptococcus is met with, or that the com-

mon streptococcus pyogenes takes on a diplococcus nature with elongated individuals. Such organisms are differentiated on insecure grounds from the pneumococcus of Fraenkel. Pneumococci which have become non-virulent to susceptible animals may acquire a tendency to long chain formation, and have characters on ordinary media simulating the streptococcus. Hiss has moreover demonstrated that streptococci are possessed of capsules which may be stained by appropriate methods, and hence the presence or absence of a capsule loses its weight in distinguishing these organisms. Hiss has, however, devised an alkaline culture medium, containing ox blood serum and inulin, which, in his hands, has constantly differentiated the pneumococci from the streptococci, the former coagulating the medium. The coagulation of the medium by the pneumococci is apparently due to the production of acid, which does not result in the growths of streptococci.

MARTHA WOLLSTEIN. "The Bacteriology of Broncho-pneumonia and Lobular Pneumonia in Infancy."

The study was undertaken in view of determining the relationship between the extent of the pneumonic areas and the variety of bacteria present, and the difference between the bacteriology of primary and secondary infections. The hundred cases examined ranged in age from eighteen days to three and a half years. In 33 cases of primary broncho-pneumonia the pneumococcus was present in pure culture in fifteen, associated with streptococcus in seven and the staphylococcus pyogenes aureus in three. The streptococcus was found present alone in two cases, and along with the staphylococcus in two others. The staphylococcus was present alone in two cases, with the bacillus coli in one case, and with the streptococcus and Oidium albicans in one other. The author points out the interesting fact that in the two cases of pure streptococcic pneumonia there was no pleurisy complicating it, while both cases of staphylococcic infection and eight out of twenty-five pneumococci infection also presented a fibrinous pleurisy. In all, the pneumococcus was present in 76 per cent. of the primary pneumonias. On the other hand, the author found the pneumococcus present in only 63 per cent. of pneumonias secondary to enterocolitis, diphtheria, measles, meningitis, malaria and other diseases. Other investigators gave the percentage of infections with the pneumococcus at a lower rate than Wollstein; however, the figures can be accepted as representing very fairly the infecting agent in pneumonias in infants.

Other papers in this number of the Journal are, "A Malignant

Teratoma of the Perineum," by R. H. Whitehead; "Dermato-myositis," by W. R. Steiner; "Observations on a Pathogenic Mould formerly described as a Protozoon," by W. Ophul's; "The toxic effect of formaldehyde and formalin," by M. H. Fischer, and "Bacillus mortiferus" (Nov. Spec.) by N. McL. Harris.

Society Proceedings.

MONTREAL MEDICO-CHIRURGICAL SOCIETY.

The fourteenth regular meeting of the Society was held Friday evening, April 21st, Dr. J. A. Macdonald, President, in the chair.

NASO-PHARYNGEAL FIBROMA.

JAMES BELL, M.D., exhibited a patient from whom he had removed a naso-pharyngeal fibroma. Dr. Bell gave the following account:—

The patient was a young lad of 18, who at eight years of age had a bean removed from the right nostril. In 1901 he suffered from an attack of nasal catarrh, the nostrils being completely blocked in the summer of 1902. Four months ago the blocking was complete, and a tumour was discovered occluding the posterior nares. He was referred to me by Dr. Birkett for operation, and on March 30th I removed this growth, which is a fibroma, and therefore non-malignant.

This was done through the palate. I incised the soft and hard palate, cutting away the bony portion, and getting the finger well in behind it, after separating the mucous membrane with a raspatory. I did the operation with the head hanging over the end of the table. I bring this case because of the very satisfactory result, as far as the operation is concerned. There is so much difficulty in getting access to these tumours, and so many ways of doing this operation, and none of them entirely satisfactory, that I am much pleased with the result in this case. I packed the naso-pharynx, which was bleeding freely, and some days later unpacked and sutured the palate. The suture in the soft palate has given way in one place, but that is susceptible of very easy repair, because there is plenty of tissue, and I think it will unite completely in the hard palate. In my experience, and I have done the operation in a good many different ways, this has been the most satisfactory method. For anterior tumours other operations are probably more suitable: Rouge's operation of turning up the nose, Annandale's operation of splitting the hard palate, displacing the nose and opening or partially excising the superior maxilla.

HYPERNEPHROMA OF KIDNEY.

JAMES BELL, M.D.—This specimen was removed 17 days ago from a patient aged 62, who came under my observation in July, 1902. At this time he consulted me for hæmaturia. There were absolutely no other symptoms whatever, and the bleeding was then assumed to be in connexion with an early stage of hypertrophy of the prostate. There was no residual urine, and no enlargement of the prostate was discovered. He had periods in which he was perfectly well, with no pus or blood in the urine. There was never any pus. In July, 1904, I placed him in the hospital, with a view to making a diagnosis. I tested for residual urine several times, but found none; there was no evidence of enlargement of the prostate, and skiagraphs and careful palpation of the kidneys failed to discover anything. He came back to see me from time to time, and in February last some shooting pains were complained of in the side. At this examination I was now able to discover a large kidney. Taking into consideration that this man had had no other symptom than hæmaturia, no pain, no prostatic enlargement, nothing at all to make one think of stone, and the considerable lapse of time before the kidney became enlarged, together with his age, I made a tentative diagnosis of hypernephroma. I operated and removed this large tumour, which Dr. Keenan has pronounced absolutely a typical hypernephroma, microscopically as it is clinically. The patient is now doing well. The specimen is about the same size and shape as that which I showed a couple of months ago, except that it has a much less amount of fat and a larger amount of tissue of the appearance of soft, new growth, evidently a change which is taking place, the fat being replaced by new growth, resulting in the rupture of blood vessels and causing the hæmorrhages. The mass grew down towards the pelvis of the kidney, projecting into it, just as was the case with the specimen I brought before this Society some time ago.

With regard to the pharyngeal case, of course I think there will be no difficulty in repairing the palate, and only for fear of the effects of hæmorrhage I would have repaired it immediately, and there would have been no difficulty about it. But these operation wounds bleed so furiously that I thought it safer to pack, and therefore left it over. The advantage of operating with the head hanging over the end of the table is that the blood flows out of the mouth, and not into the air passages With regard to the kidney tumour and the diagnosis of sarcoma, I may say that three years had elapsed from the time he had first had the hæmaturia to the time the kidney became palpable. Once a sarcoma

has developed and produced hæmorrhage, it is likely to proceed much more rapidly, and this was one of the points which led to my diagnosis.

CHRONIC SUPPURATIVE OTITIS MEDIA AND MASTOIDITIS---HEALED CASE FOLLOWING RADICAL OPERATION.

W. GORDON M. BYERS, M.D.—This young girl, aged 14, was admitted to the Royal Victoria Hospital on October 29th, 1904, suffering from a chronic suppurative otitis media, which had existed since childhood. She had had seven operations performed elsewhere upon the mastoid process. When seen, the external auditory canal was entirely filled by polypi and foul pus; the mastoid process was entirely carious, and the site of a large sinus evidently made by a trephining instrument. This opening was likewise filled with granulations, polypi, and foul pus. Dr. Buller handed the case over to me, and I performed the radical operation on November 3rd. To complete the operation, a small skin-flap was taken from the arm and grafted on over the site of the exposed mastoid antrum. The patient left the hospital at the end of seven weeks, and dressings were applied for about a week more. At the end of that time the condition was as you see it this evening, a clean, sweet, perfectly dry cavity.

There has been no recurrence whatever of the discharge since the operation was performed, and I attribute this satisfactory feature, as well as the rapid epidermization in this case, to the fact that at the end of the operation I closed the lumen of the Eustachian tube by thoroughly curetting away the lining mucous membrane of this structure near its aural opening. Fresh infections were thus prevented by cutting off the only avenue open to the micro-organisms of the naso-pharynx.

FRANK BULLER, M.D.—With regard to this radical operation, we have no doubt something which has come to stay, and has proved itself sufficiently reliable to justify every practitioner in otology undertaking the operation in suitable cases. Of course it is open to question as to what constitutes a suitable case. I may mention here that one of the points which interest us is the connexion between life insurance and ear disease. It is accepted by most authorities on otology that a discharging ear which had not been subject to attacks of pain, and in which the discharges are not at all offensive, should be regarded as a comparatively innocuous thing. But if the person with otitis media is liable to attacks of pain, and especially if the discharge is of a fœtid character, there is no doubt that it is an exceedingly dangerous condition. It is a recognized fact that a large percentage of people with otitis media perish from brain trouble somewhere between the ages of 15 and 30, and this has

been corroborated in my own experience. One case I well remember was that of a young man who as a boy had a chronic suppurative otitis media of a rebellious character. He grew up, and had been under the care of a physician who practised otology, and had unfortunately got this young man into the way of using peroxide of hydrogen, which has come to be acknowledged as not a very safe remedy to be used indiscriminately in these cases. This young man was attacked finally by headache, and developed acute meningitis and died. This was really a case where hydrogen peroxide probably did harm rather than good from its indiscriminate use. One class of case which would justify one almost in recommending without very much delay the radical operation is where there is a perforation in the posterior superior quadrant of the tympanic membrane, and perhaps a few granulations and a fœtid discharge. By using a fine probe, you may very often feel some bare bone somewhere about the mouth of the antrum, and that is a situation in which caries of the tympanic walls is most likely to occur. It is this class of case which calls for the radical operation without much delay.

R. Kerry, M.D.—The result in this case which Dr. Byers has shown to-night is in every way ideal; the epidermization of the cavity and the thorough and complete drainage is everything to be desired. I do not quite understand, however, why the case should take so long to heal; in ordinary mastoid operations the wound is healed in the course of a month. In our experience these incisions usually unite practically by primary intention, and we lose sight of the cases in regard to treatment in a very much less time, and in following them later I have yet to come across a case of relapse. The operation of skin grafting by Thiersch's method should, I think, rather hasten the healing, and it has not been demonstrated that the prolonged after-treatment is accompanied by compensating advantages. Another point with regard to the pus; both Drs. Jamieson and Byers have emphasized the stinking, foul pus. A pure streptococcus infection is odourless, while infection due to the bacillus fœtidus is not specially dangerous, and I have been in the habit of regarding, with some apprehension, cases in which the pus is not foul. The odour due to caries is of course quite distinctive. As regards cholesteatomata, they can very often be removed a piece at a time. In one case in which the meatus was completely filled I worked for about a month before getting the whole of the passage and attic clear, and was able to obtain a condition in which syringing brought absolutely nothing away; so that I do not quite see that cholesteatoma is an indication for this radical operation. Among the indications for operation, the condition in which blocking of the aditus ad antrum occurs from swelling or otherwise, has

been omitted. When sudden cessation of the discharge occurs, accompanied by an increased severity of the mastoid symptoms, we have to deal with a closed abscess. As you all know, absorption of septic matter and extension of disease occur with great rapidity under pressure, and under these circumstances immediate operation is imperative.

W. H. JAMIESON, M.D.—Dr. Byers is to be congratulated on the excellent result of this radical mastoid operation; healing seems to be complete, there is no discharge, and the cavity is lined with epidermis.

In January, 1904, the radical mastoid operation was performed by me with satisfactory results. The patient, a girl aged six, had had an attack of measles the May previously (this disease, according to Bürkner, is responsible for eight per cent. of all cases of chronic suppuration of the middle ear). Two weeks later she developed an acute otitis media of the right ear, followed by mastoid disease, for which she was operated on in St. Johns, but without benefit. On coming to Montreal she was sent to me for treatment. I found her rather anæmic and the general condition poor; there was a profuse discharge in the right auditory meatus, in which, on being cleared away, there was seen to be extensive destruction of the drum-membrane with a profuse, foul-smelling discharge in the middle ear. Behind the auricle was the scar of the former operation, which presented two sinuses, one about half an inch from its upper extremity, the other over the prominence of the mastoid. On examining the naso-pharynx, I found a large adenoid present. As it was desired that local treatment should first be tried, and there being no immediate necessity for operation, this was carried out for some time without improvement, so that it was necessary to operate in January. Under anæsthesia a probe could be passed for fully an inch through the upper sinus inward and forward, and in the lower, directly inward, but for a less distance. The upper sinus, it was later discovered, led into the attic and the lower towards the lateral sinus. In the region of the mastoid cells the site of the previous operation was a mass of granulation tissue and necrosed bone, the disease extending through its entire thickness, necessitating exposure of the dura-mater and lateral sinus to an extent of a little over half an inch in diameter.

The radical operation was performed, all the necrosed bone being removed, including the outer wall and part of the roof of the attic. The antrum, attic, middle ear and mastoid cells were cleared of their contents. The Panse plastic operation was performed on the separated membranous meatus, and the wound behind the auricle sutured and completely closed. The wound was packed through the meatus, all subsequent treatment being carried on through this. On the fourth day

the dressings were removed for the first time. The cavity was found perfectly clean and free from pus. The temperature, which had previously been in the neighbourhood of 100 in the evening, fell to normal, though it rose again, but gradually subsided to normal. Between two and three months after the operation epidermization appeared to be complete, though there was at times a slight discharge, which seemed to be from the Eustachian tube. Marked improvement followed the removal of the adenoid later on. Though the patient has left the city, I heard the other day that she is completely well; there is no discharge and her health is excellent.

R. H. Craig, M.D.—I have done this so-called radical operation three times. A great disadvantage often is the loss of hearing entailed by the loss of the ossicles, but when one considers the close proximity of pus to the meninges, it is the more necessary to consider such a radical operation.

Dr. Byers.—As regards the time of healing, the conditions in the ordinary mastoid operations and in the radical operations are entirely different; in the one case it has to do merely with healing of the flaps, while in the other complete epidermization of the cavity has also to take place. With regard to the odour, since I have studied otology, I have always associated a certain peculiar smell with bone caries, and I believe the sense of smell can be largely relied upon in the diagnosis of this condition. I quite agree with Dr Kerry that all cases of cholesteatomata do not call for radical operation. There certainly are cases which can be cured by the ordinary methods; but, as a general rule, in cases of chronic mastoiditis the undoubted presence of cholesteatomata is another powerful reason why one should undertake the operation. Dr. Craig has perhaps laid too much stress upon the danger to hearing. Grossman has collected all the material from the Berlin clinic, and shown that in the cases where the nerve reactions had been found to be normal before the operation, in fifty per cent. of the patients the hearing was actually improved, remained unchanged in twenty per cent of the cases, and was made worse in the remaining thirty per cent. These results are in accordance with those which have been obtained elsewhere, and go to show that, while the prognosis must be most guarded, one is more likely to obtain improvement than impairment of hearing.

LANTERN DEMONSTRATION.

The paper of the evening was read by Dr. Byers on the surgical treatment of chronic suppurative otitis media, with special reference to the radical operation. This was illustrated by lantern slides, and a series of mounted bone preparations showing the various conditions.