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Original Articles

PERSONAL RECOLLECTIONS OF LORD LISTER.

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On the day that all the papers contained the news of Lord Lister's death, your President asked me to give this Academy a paper on my personal recollections of Lister and his work. This paper, then, is not an account of his life, not a recapitulation of what all medical men know, *viz.*, the great results that followed the introduction and proper use of the system he inculcated, but my personal recollections of his early work and his great struggle to convince a doubting medical world of its supreme importance.

There are others here to-night, who, about the same time were, like myself, associated with him. I am sure they feel how fortunate we were to be able to see at close range this great man; to be very intimately associated with him in early anti-septic days, when he was fighting an uphill fight against ignorance and prejudice.

When I was a student, Edinburgh University and its medical schools were very fortunate in having an unusually large number of able and distinguished men: Sir James Simpson, Sir Robert Christison, Sir Patrick Heron Watson, Matthews Duncan and others, hardly less well known. One was just passing off the stage whose name required no hall mark of honor from his sovereign to heighten his fame as a surgeon; James Syme had just given up the chair of Clinical Surgery in the Royal Infirmary. Lister, his son-in-law, and his most devoted admirer and pupil, succeeded him. As a visitor with Lister, Syme went round the wards once only when I was with him. Lister showed

* Read before Academy of Medicine, Toronto.

him a compound dislocation and fracture of the ankle joint healing as quietly and as free from all constitutional symptoms as a simple fracture and dislocation would. Syme said to the patient, "You are fortunate, my man. I lost several out of thirteen in this very ward in cases such as yours."

I had the good fortune in my first week as a *Civis Academiae Edinensis*, in 1869, to hear two introductory lectures. Prof. Playfair, afterwards Lord Playfair, had abandoned chemistry to take up educational work in the political world. His successor, Crum Brown, delivered a scholarly and able lecture. A day or two after in the same great chemistry classroom in the old University Buildings on the South Bridge, Lister delivered his. He had an unusually large audience, various reasons accounting for it. A Glasgow professor, translated by the Crown to Edinburgh, was hardly a *persona grata* there, yet his work in Glasgow had interested them, and they were curious to hear about it. The medical students of that year were registered in larger numbers than ever before. They were curious to hear this new professor who was just beginning to be talked about. I remember the lecture as if it were yesterday,—the procession into the room; the marked quiet throughout its delivery. I never listened more closely to any lecture, but then it was all new to me; all his facts seemed so clear and distinct; so logically set out. I could hardly conceive there could be any other side to the question; any possible doubt of all he said. At that time he was just over 42 years of age, at his very prime, with a commanding figure and a beautiful, thoughtful face, and a complexion which many a woman would like, and which few could surpass.

The intense hold his subject had on him, the earnestness with which he spoke heightened his color and accentuated the slight hesitancy of speech peculiar to him, adding, I thought, to the force the words carried. A brief resume of this lecture I must give you; it set forth so clearly at that early date what he claimed.

He claimed to be practising a system of antiseptic surgery, —that is, the treating of a surgical case in such a manner as shall prevent the occurrence of putrefaction in the part concerned. If this is really done what a change in behavior do many surgical injuries undergo. Injuries formerly regarded in the gravest light, become comparatively trifling, and some diseases rarely admitting of cure terminate most satisfactorily in perfect recovery.

The guiding principle, the pole star and compass combined of all its practical details, was the germ theory of putrefaction. This theory declares that putrefaction in organic substances under atmospheric influences is effected by living organisms, developed from germs floating in the atmosphere as constituents of its dust and not to the oxygen of the air, as was formerly supposed.

The proofs of the theory were, step by step, traced up, going back to Harvey's law, "*Omne Vivum Ex Vivo*," that all animals and plants are derived from eggs and seeds, and vitality is transmitted, never created. Many scientific people have from time to time doubted the truth of this law, and the reasoning deduced from it and upheld,—spontaneous generations as opposed to homo genesis, or generation from parents. Curiously at that time in Edinburgh University, John Hughes Bennett, the able Professor of Physiology, was a strong upholder of abiogenesis, as were Huxley and Charlton Bastian. But on the other side there was a growing weight of evidence from the time of Cogniard La Tour, who, in 1836, detected in yeast the *Torula Cervisia*, which seemed to be the essential constituent of the ferment; next came Schwann; lastly, and greatest of all, Pasteur.

Lister's experiments were very similar to Pasteur's. One only I would like to give in his own words, because that experiment I am sure clinched in his own mind the basic principle of his work, affording as it did the strongest evidence in favor of the germ theory.

Writing in 1869 he says:

"Two years ago last month I introduced portions of the same specimen of fresh urine into four flasks—(urine being a fluid combining transparency with a high degree of putrescibility). The body of each flask was about one-third filled with the liquid. After the introduction of the fluid the necks of three of them were drawn out into tubes rather less than a line in diameter, and then bent at various acute angles. In the other the neck was drawn out to a calibre if anything rather finer, but cut short and left vertical. The liquid was then boiled for five minutes, the steam issuing freely from the open end of the narrow neck of each flask. The lamp being removed, air, of course, passed in to take the place of the condensed aqueous vapor, and during the two years that have elapsed a considerable portion of a cubic inch of fresh air has entered every night into the body of each flask to exert its influence on the liquid. In the case of the flasks with contorted necks, the air moving to and fro through the tube soon

dried the moisture which was at first deposited within it, making the neck dry as well as open from end to end, so that it could present no obstacle to any gaseous constituent of the atmosphere. Nevertheless, though thus freely exposed to the action of the gases of the air for so long a period, including two unusually hot summers, the urine still retains its original straw color and perfect transparency, presenting neither cloud, scum, or sediment. But very different is the appearance of the urine in this other flask whose neck, short and vertical, was calculated to admit particles of dust, as well as gaseous materials. (In the case of the contorted neck the angles arrested the dust). The transparent straw has given place to a muddy brown, with sediment of fungi. It is pungently ammoniacal, as can be easily observed by placing the warm hand on the flask and a nostril at the orifice. I was not content with observing the completely unchanged appearance of the bent neck flasks. Half a year after the experiment was begun I poured out half an ounce of the clear contents of one of these into a wine glass for examination. Its odor was perfectly sweet, and its reaction faintly acid. Under the microscope a careful search with an excellent glass of high power failed to detect any organisms. But exposed to dust, in two days it was loaded with minute organisms and fungi, visible to the naked eye."

Some tried these experiments of his and failed to get the same results. Lister answered these failures by saying negative results are far less strong than positives. It is also easy to understand failure in such experiments consistently with the truth of the theory; it is impossible to understand success in any single instance, consistently with the falsehood of the theory.

Then he ended the lecture. "Gentlemen, I commend these facts to your candid and impartial judgment, beseeching you to form your own opinions regarding them. The minds which you bring to bear upon this subject are very much the same as they will be throughout your lives, and you are as competent as ever you will be to draw correct inferences from established data.

"Throughout the course I shall endeavor to place before you simple facts, trusting that in estimating their significance you will be guided by what our dear master (Syme) has so consistently striven to inculcate as our leading principle—love of Truth."

Very similar experiments he later conducted with milk, only using superheated wine glasses and covering them with a glass cap and shade, purified in the same manner. The milk was not boiled, but introduced directly into the glass as from the cow, whose

teats and udder, as well as the hands of the milkman, had been previously purified by carbolic acid.

I saw the milk which had been lying in a wine glass, secured and treated as I have said, exhibited before the Royal Society of Edinburgh, by Lister. Although eighteen months had elapsed since its introduction into the wine glass, on removal of the shade and cap, it was found to be as sweet and pure as the day it came from the cow. Watched by the audience with keen interest, Lister tasted it, handed it to Tait, the learned Professor of Physics, who agreed as to its quality. How many more of the venerable fellows tasted it I have forgotten, but I know at the time it seemed to impress strongly that learned Society.

In 1870 Lister gave me a dressership. My application had been backed up by an old house surgeon of Syme's, Edward Lawrie, whom I knew at that time. Later on Lawrie joined the Indian army, and presided over the Hyderabad Commission investigating the administration of chloroform. The first cases I was allowed to dress were unimportant, chronic ulcers and the like, cases in which I could do no harm. I scrupulously washed them in 1-40 carbolic acid, dressed them with lac plaster, a stump towel on the outside, and bandaged them as carefully and evenly as if much depended upon it. The lac plaster had not long displaced the putty, which he had used in Glasgow, and very proud he was of his new dressing, frequently describing the gradual improvements in its manufacture until the perfect stage was reached.

This was replaced by the gauze. To-day we use a gauze very similar to that first made. I remember well the day Lister dressed the first case with gauze. He had finally, after being up nearly all night, perfected to his satisfaction a small piece. He came to the infirmary, and with his staff went to the laboratory and made a larger portion. He went straight back to the theatre and with it dressed a compound fracture of both bones of the forearm, then made by himself to correct a badly united fracture. This showed his confidence in dressing. It was made of cheese cloth impregnated with carbolic acid, held in resin, the resin having the property of holding carbolic acid with great tenacity, but on account of its stickiness, required to be diluted with paraffin—the most satisfactory portion being Acid 1, Resin 5, Paraffin 7. By degrees the accessories to the dressing were dispensed with as greater knowledge came, as the Mackintosh between the seventh and eighth layers, the syringe to destroy the germs, the spray—at first a hand one and then a steam spray. As one by one was discarded, much to the relief of the surgeons, Lister contended that if the

demands of the theory are met, the means cannot be too simple.

The next year I fortunately received a clinical clerkship. This brought increased responsibility,—the selecting of instruments and dressings for operations, administration of chloroform, and taking the notes of cases. Lister had three clerks and 54 beds, so it was no light task. At this time surgeons from the Continent, especially Germans and Danes, followed the daily ward visit, and Lister, painstaking to a degree, explained over and over again the theory and the minutiae of the dressings. His own countrymen, and those on the staff of his own hospital, were infrequent visitors. In the Royal Infirmary at that time the old practice and the new by Lister were both in operation. It was easy to see both, to compare the results; but slowly, sometimes it seemed very slowly, the new gained more and more confidence in men's minds.

The student body was divided into two camps—those who followed Lister and those who believed him not. I remember a dresser of Spence's, the Professor of Surgery, about this time had effusion into the knee joint. Tapping was considered advisable. At once he became very solicitous that this should be done under rigid antiseptic precautions. It was, and with a happy result and a very rapid conversion of mind.

I have said that the surgeons of the Infirmary were not frequent visitors in Lister's wards. This is correct; but at least three of them were thorough believers in antiseptic surgery. Mr. Annandale, who succeeded Lister in the chair, was always a warm friend and upholder of Lister and his work. I acted in my first year as his dresser and once in later years as his house surgeon for a short period. Excellent surgeon that Annandale was, he never in my time seemed to grasp the necessity of complete attention to details which antiseptic surgery required. I suppose it was the old story—the difficulty of an old dog acquiring new tricks. Joseph Bell was then senior assistant surgeon and later came on as a full surgeon. He had, I think, the same difficulties as Annandale in adapting himself to the altered needs of surgical work.

John Chiene, afterwards Professor of Surgery, was always a whole-hearted and enthusiastic follower of Lister. Careful, thorough, he was a complete master of all detail and demands of antiseptic surgery. In Lister's absence during vacation, Chiene took charge of his wards. He was then the junior assistant surgeon. I had known him as the capable demonstrator of anatomy. I now found him the careful surgeon, an excellent teacher and very considerate of those under him. For many years Professor of

Surgery, he has lately given up the chair and lives, in not very robust health, at his country house near Edinburgh. I always spend part of a day with him when visiting Edinburgh. A most interesting lot of reminiscences he can tell of Goodsir and Turner, of Syme and Lister. Some of these he gave to the public in his "Looking Back," 1907-1860. The picture in the front of that booklet is an excellent one of Lister.

At the end of my clinical clerkship I asked Lister if later on he would make me his house surgeon. This he promised in the autumn of 1873, at the same time strongly urging that either before or afterwards, if possible first, I should get on in the Medical House as a house physician. Dr. George Balfour promised me his, and in 1873 I went to him and Lister afterwards.

Lister's wards were the same that Syme had had only not quite so many beds. The Trustees had appointed an extra surgeon (Mr. Annandale) and about 20 beds had been taken away for him. This I know chafed Lister, who felt the loss of them, but there was no possibility of altering it. The wards were in the old part of the Infirmary, the part that originally had been the old High School, converted into surgical wards. There was always overcrowding; the number of cases seeking admission being largely in excess of the accommodation. I have slept 70 patients in 54 beds by putting down mattresses between the beds and putting several children in one bed. This was exactly the contrary to what prevailed in the newer and better ventilated wards of the other surgeons. One might have feared at any time an outbreak, such as was not unusual at that time. Erysipelas, pyemia, hospital gangrene or any of the forms in which blood poisoning them showed itself. With the exception of a few mild cases of erysipelas and one case of septicemia following amputation of the breast, I never saw a single case of blood poisoning in any shape in Lister's wards during five years. It was a matter of common report that the surgeons who had better wards suffered not infrequently in this way, especially in the primary amputation cases. I am sure had Lister not had such confidence in the protective power of his system against such calamities he would never have permitted such overcrowding.

Distinguished foreign surgeons were now very numerous in the daily visitation. Lister, I think, treated them all with great consideration, quite irrespective of their eminence in their own country. They wished to see his work—he did his best to show it. I remember more than once at his house, in Charlotte Square, being the only English-speaking person with the exception of his

private assistant, John Bishop. One of these occasions impressed upon me how desirable it is, if possible, to know a little of the language of the country you are visiting. Prof. Saxtorph, of Copenhagen, and another Danish surgeon were among the guests one night at a large dinner party. It was necessary for the Danish surgeon to leave the table early to catch a train. Saxtorph made his excuses for him and he left the room with some embarrassment, as he spoke not a word of English.

As his house surgeon, he frequently took me to his private operations, perhaps because so few outside his actual staff were at that period capable of giving efficient aid in antiseptic details. While he was as careful and thorough as he could well be he treated always his humblest hospital patient with the same consideration, the almost feminine solicitude, that he gave to the proudest dames that sought his care.

Bear with one illustration. In the treatment of large chronic abscesses the then usual practice of surgery was to draw off the matter by means of a cannula and trocar, or some similar manner. No surgeon dared to open them in adults at any rate. This manner of opening was frequently successful at the time, the patient being relieved from the accumulated fluid; but pus was almost certain to reaccumulate and again tapping must be repeated. Sooner or later, inflammation and constitutional symptoms compelled free incision, when usually fetid pus escaped. Antiseptic surgery taught the wisdom and safety of free incision and provided careful dressing with drainage was continued in time, even the tubercular bone healed and a cure resulted. But sometimes the time required was long. Yes, even one or two years. I know in my time in Edinburgh the managers of the Infirmary grumbled at the length of time that some of Lister's cases of chronic abscess of the hip and spine held possession of the beds. On one occasion at least, Lister appeared before the managers and by his explanation prevented them taking any action.

When Lister left Edinburgh, in 1877, there were eight cases in his wards of psoas and hip abscess—seven men and boys and one woman. Lister thought they would remain in the hospital under Annandale until they got well. Dr. John Stuart tells me that shortly after Lister went to London it was decided to turn these patients out. Caird wrote to Stuart and asked if the girl, a lady's maid from the South of England, would be taken in at Kings. "I shall never forget," he says, "the pained look of surprise in Lister's face when he heard his patients were to be turned out." I wired Caird "Yes," and that night she left for London

under the care of a nurse, transported in one of those long baskets which in Edinburgh were used to carry patients to the operating theatre, manned by the dressers of the surgeons. She ultimately got quite well and the "Chief," writing a year or two later, said that he had seen her walking and looking bright and well. Lister had the men and boys taken from the Infirmary to a nursing home where he used to operate in Edinburgh. He put them under the care of his old assistant, John Bishop, and paid all the expenses connected therewith, including attendance and dressing. In the end all of them got perfectly well.

Sunday afternoon in the wards was a busy time. Lister, though a member of the Society of Friends, went, if I am not mistaken, to Trinity Church—a Scotch Episcopal Church of the old-fashioned sort, just over the Dean Bridge. At about two o'clock he would come to the Infirmary. Any cases that had not been overtaken in the pressure of the week-day work were investigated and disposed of; minor operations done. Very pleasant were those Sunday afternoons. No visitors, no strangers; but often discussion of points in the cases given with much more freedom than was usually feasible. The bells were often ringing six when I walked out with him to Infirmary Street. He never, I think, took out his horses on Sunday. I hardly think any of the clerks or dressers found those Sunday afternoons long or wearisome in the very least.

I cannot remember his ever discussing any aspect of religious belief with me; but I have reason to know that neither his scientific researches nor his ceaseless work nor the high honors heaped upon him prevented his having a child-like Christian faith. He ever held fast the blessed hope of everlasting life.

About this time he was summoned to Balmoral to attend Queen Victoria. She had an abscess in the axilla which required to be opened. He did it under the spray with complete antiseptic precaution. He told us how he had no drainage tube but cut off a portion of the tube of the spray producer to make one; also, that the Queen said she liked the smell of the carbolic spray. Carbolic acid, as his main antiseptic, had been chosen after considerable investigation. Many objections had from time to time been raised against it, one being its odor. This royal opinion on that head gave Lister considerable satisfaction. His selection by Her Majesty showed the estimation in which his work was now being held. There were others on the Royal Scottish staff that might, by age and experience, have been selected.

By degrees his old pupils, especially his old house surgeons, were helping to spread his views. Cleaver had gone to Liverpool;

Fleming to Glasgow; Knowsley Thornton to be with Sir Spencer Wells at the Samaritan for Women, in London; Beatson, afterwards Sir George Beatson, to Glasgow; Malloch, who had been his house surgeon in Glasgow, had already settled in Hamilton, Canada. Lister wished me to go to Norwich to take charge of the hospital there and help Mr. Cadge, the well-known surgeon in the East of England, to become familiar with the practice of antiseptic surgery. I had decided to return to Toronto and so, with much regret, declined his offer. Baldwin followed me later on to Toronto.

In 1877, Lister left Edinburgh for London. Kings College offered him the vacant chair of Sir William Ferguson. I think he felt, if he accepted it, he would have greater facility for reaching the profession in England. The London men had been slow to adopt it; very sceptical about it. Here was a great chance to let the profession see his grand results. Two men went with him from Edinburgh, Watson Cheyne and John Stuart, now of Halifax, both of them loyal, devoted pupils who stand out perhaps foremost, among those whom Lister trained.

In 1879, two years after he went to London, Mr. Savory, afterwards Sir Wm. Savory, surgeon to and lecturer on surgery at St. Bartholomew's, delivered the address on surgery before the British Medical Association. He chose as his subject the prevention of blood poisoning in the practice of surgery; he called it the chief evil that waits upon the surgeon's work. He analysed statistics of operation cases in his own hospital, showing excellent results as to freedom from death from pyemia, erysipelas and the like. After covering the subject exhaustively, he contended strongly for simple means of dressing and yet he rejoiced in laudible pus.

Of antiseptic dressings, however, he says: "I say then I cannot admit the claim of Lister's method, because though undoubtedly good results are to be obtained by this practice—better ones no doubt than most of those reached in former years—or are still in many places, yet it has not shown results superior or equal to those which have been otherwise achieved. Moreover, it has grave drawbacks from which simple plans are free; that if it failed it is worse than useless by increasing the risk. And, therefore, it has not established any title to supercede all other methods in the practice of surgery." Such was the opinion of some at that date.

In 1880, Professor Spence, of Edinburgh, published his surgical statistics in reply to those of Lister given at a recent debate on antiseptic surgery. He prefaces he is not actuated by any such motive as sometimes characterize criticisms of Lister, as due

to envy, malice and all uncharitableness. Then he produces a paper which Lister, the mildest of men, in his answer, says consists of two elements: "One tending to disparage my character as a surgeon, the other calculated to diminish the effect of the statistics which I have lately adduced in favor of antiseptic surgery. The former of these elements I shall beg leave to dismiss without further notice than to remark that as Mr. Spence never did me the honor to witness the practice which he criticizes, so that his knowledge of it must have been derived entirely from hearsay, the exercise of a little charity towards a late colleague might have induced him in every one of the points to which he refers to accord a more generous and at the same time a more just interpretation."

This called forth from Spence a powerful reply and Mr. Watson Cheyne furnished full statistics of Lister's results. Mr. Spence's reply to this was so severe that the editor of the *British Medical Journal* suppressed parts of it and said his remarks as to Cheyne were scarcely worthy of so eminent a surgeon.

If in the discussion of this momentous question some sharp blows were given and taken until conviction gradually became universal, yet from time to time Lister received marks of honor and appreciation that were unusual.

On leaving Edinburgh, he vacated the office of Surgeon to the Queen in Scotland, yet in 1878 he is gazetted as a surgeon extraordinary to Her Majesty in the place of Mr. Hilton. In June, 1879, Dublin University gave him the M.D. *honoris causae*, and in conferring it the Dean of Faculty said: "They might claim for him merits equal, if not superior, to the merits of Simpson in reference to anesthesia."

It would be wearisome to give any adequate idea of the degrees and honors conferred on him by countless learned societies the world over. One only would I like to refer to, coming as it did at the time of these severe criticisms already mentioned.

In September, 1879, the *British Medical Journal* says: "The enthusiastic ovation with which Prof. Lister has been honored this week at the International Congress of Amsterdam by the body of surgeons and physicians of all nations who were assembled there will cause great joy in Kings College and Hospital, which have the advantage of possessing the surgeon whom Europe delights to honor. The honors which have been heaped upon Lister by every country in the world are not perhaps without precedent in the history of medicine; but we know no precedent for the enthusiasm which his presence creates in every assembly of medical men in Europe and the almost regal reception everywhere accorded

to him. It is, as Professor Donders expressed it, not only a testimony of admiration to the learned surgeon who has known how to draw from the teachings of absolute science the most precious, precise and accurate safeguards for practical surgery, and who has enlarged the bounds of its achievements while he has disarmed it of its worst terrors and anxieties; but it is also an expression of gratitude for the multitude of lives already saved throughout Europe by the application of his methods and the endless vista of benefits to humanity which opens up before the universal adoption of antiseptic principles. Whatever may be doubted no one will deny that Professor Lister has created a revolution in surgery throughout Europe by which every day lives are saved, and it cannot be said that the honors thus spontaneously showered upon him by the most critical of judges—his foreign contemporaries—are other than well-earned.

“Few men, if any, however have lived to see themselves so quickly hailed by the masters of their own art in all countries as among the greatest benefactors of their kind. And English surgery may well feel proud of its illustrious professor who has once more made the name of English science and humanitarian progress resound with applause in every country.”

After I came to Toronto, in 1875, it was not till 1886 I saw him again. I visited England in that year and soon went to Kings College Hospital. I slipped into the theatre unobserved, I thought, while he was operating. I found time had changed him a bit. His brown hair was heavily tinged with gray, spectacles were necessary for operating; but in all other respects he was unchanged. I fancied perhaps he would not remember me, but after the operation was over he washed his hands in his usual deliberate manner and looking round the seats, said: “Where is that fellow?” smiling. He warmly shook me by the hand and made me promise to dine with him that night. After dinner was over, Rickman Godlee, his nephew, and others left the table, but Lister kept me telling me all changes and improvements that he had made, the difficulties he had overcome, since I had been with him. So keen was he in telling me all this and so interested was I in listening, that the time passed quickly away and it was eleven o’clock when we went upstairs, to find only his wife and mine in the drawing-room. I think the absorbing interest of his work made him oblivious to time and place.

Many of us remember him in Toronto at the meeting of the British Association. I think he had, in common with many Englishmen at that time (though times have changed since), the idea

that Canada was an ordinary country and Toronto a commonplace city. I called at the Queen's Hotel the first morning of the meeting early and brought him up in my carriage with Sir Wm. Turner, the President of my University, who was staying with me. It was a lovely August morning as we drove up to the Queen's Park, and as the University compound and the park opened before them Sir William said to Lister: "This is a very nice place, Lister." "It is, indeed, Turner," said Lister. They were charmed with the University and its surroundings. Further knowledge of Toronto only deepened the pleasing impression they received at first. How much the profession here made of him and the pleasure it gave him I can testify; but many remember it well no doubt. During that visit I saw much of him as I had known him well in the long ago. He seemed to enjoy much speaking of the past: of his wife, to whom he was so devotedly attached, and of her sad and sudden death when travelling in Italy. I saw him only twice afterwards. I find his last letter to me was dated June, 1907. In it he says that he is in infirm health, but it would give him much pleasure to see me at Park Crescent. Unfortunately, I did not go to London during that summer. Two years afterwards, when in England, I found he had gone to Walmer and his return to London was a matter of great uncertainty. Though his niece said she thought he would see me, I hesitated to intrude upon him.

Of the actual results of his work, of the benefits that it has conferred on humanity, it is impossible to make any estimate. I have seen it in print somewhere that in 1900 it was asserted, with much appearance of probability, that it had already saved more human lives than all the wars of the expiring century had sacrificed. Well, indeed, did Mr. Bayard, the American Ambassador, sum up the matter at a banquet of the Royal Society in proposing Lord Lister's health, when he said: "My Lord, it is not a profession, it is not a nation, it is humanity itself which with uncovered head salutes you."

In 1883 the Crown conferred a baronetcy upon him, and Queen Victoria later raised him to the peerage; the only one, I believe, ever conferred on a surgeon.

Gratified, no doubt, as he was by these honors, yet I feel sure that Joseph Lister valued the great, the inestimably great, work he did for humanity far above any honor that could possibly be conferred upon him.

This Society, I think, does well to honor his memory to-night. His life has been written with more or less completeness and ability, and no doubt will be done again. I have tried to give, not

an appreciation of him, not an account of his life, but an outline of my personal knowledge of him. How imperfectly I have succeeded in showing up some of the characteristics that mark so strongly my old teacher—one of the greatest of men—nobody knows better than myself, but in loyalty to, in affection, yes, in love for him, I yield to none.

*** REMARKS ON ECZEMA WITH SPECIAL REFERENCE TO ITS ETIOLOGY.**

BY GRAHAM CHAMBERS, B.A., M.B.

There are few diseases which are more important to medical men than eczema, whether we take into consideration the frequency of its occurrence, the easiness, as a rule, of its diagnosis or the effectiveness of careful treatment. Yet after all this has been said we must acknowledge that the etiology is little understood, and as is necessary under such conditions the treatment is more or less empirical. This defect in our knowledge of eczema is not due to lack of investigation for there are few diseases which have been more closely studied. The investigations, however, have not been without value. Observations have been recorded which will in time no doubt prove of value in elucidating the problem of the disease.

In studying the disease one of the obstacles met with is the difficulty of defining what is meant by eczema. It cannot be defined by its pathological characters because one can produce by external irritants such as dyes, flour, sugar, and bichromate of potassium, dermatites indistinguishable as to their gross and microscopical appearances, from eczema. This difficulty has been recognized ever since physicians began to give special attention to the study of cutaneous affections. Bateman and Willan, who classified skin diseases according to their lesional characters (papules, vesicles, scales, etc.), restricted the name eczema to certain vesicular eruptions and included under this heading not only rashes of unknown origin, but also those caused by external irritants. For example, in their Atlas of Cutaneous Diseases published in 1849 there is a plate designated eczema rubrum

* Read before the Hamilton Medical Association, February, 1912.

mercuriale, a moist dermatitis caused by the application of a mercurial preparation to the skin. Somewhat later this idea was expanded by Hebra, the elder, who stated that eczema was nothing more than a superficial inflammation of the skin, dependent on some external irritation. Hebra admitted that constitutional conditions might predispose to eczema, but maintained that local irritation was essential in the genesis of the disease. He even went so far as to include itch with the eczema inasmuch as it is caused by an external irritant.

Nowadays our views with regard to the part played by external irritants in the causation of eczema are quite different from those of Hebra. We no longer apply the name eczema to any dermatitis produced by chemical or mechanical irritants, but designate it, artificial dermatitis. This, however, is open to criticism, because in many cases of artificial dermatitis there is a predisposition, due probably to constitutional disturbance which renders the skin hypersensitive to irritation. For instance, in chocolate dippers only about one in ten suffer from an eczematoid eruption of the hand, which shows that the predisposition to the dermatitis is of first-rate importance. On the other hand, an artificial dermatitis is generally localized to the seat of irritation, which shows that the local irritant is an important etiological agent. In eczema the lesions appear in parts not subjected to local irritation, which character is important in differential diagnosis between the two affections.

If we deny that an eczematoid dermatitis produced by an external physical agent is an eczema then naturally one should also exclude similar eruptions caused by local irritation of animate agents. This, I may say, is the custom followed. For instance, some of the eruptions which are now described under the heading of seborrheic dermatitis were formerly classed with the eczemas. As soon, however, as the etiology, pathology and symptomatology of seborrheic dermatitis was understood the eruptions which were formerly classed with the eczemas were given their correct nosological position; and there is no doubt that as our knowledge of dermatology increases other eruptions which are now designated eczema will be separated as distinct entities. Eczema at the present should be looked upon as a composite affection. It would be more correct to speak of the eczema group or eczemas than eczema. With this conception of the term one might place in the eczema group any superficial inflammation of the skin, originating without visible external irritation and exhibiting in some stage of its evolution serious exudation.

THE ETIOLOGY OF ECZEMA.

There are two theories regarding the origin of eczema. According to one, eczema is microbial in origin; and to the other, amicrobial.

THE MICROBIC THEORY OF THE ORIGIN OF ECZEMA.

According to this theory, eczema is an infectious inflammation of the skin.

Among those who have strongly supported the microbial theory are Bockhart and Unna. Bockhart, experimenting with virulent staphylococci aureus and albus, found that an inoculation of the skin with a filtrate of a culture produced a papulo-vesicular eruption having the gross and microscopical appearance of an eczema. Bockhart's observation was confirmed by Bender and Gerlach. These investigators looked upon the eruption as due to the irritation of the staphylo toxin acting as a serotactic agent, i.e., an agent which repels the leucocytes, but attracts the serum. Bockhart goes as far as defining an eczema as "an infection inflammation of the epidermis caused by staphylococci." He thinks that staphylococci, normally present but inactive in the follicles, become from some external or internal disturbance active and excrete the staphylo toxin which passes through the wall of follicle into the intercellular spaces in the epidermis and there sets up a serotaxis with resulting vesication. At first the vesicle is sterile, but soon the staphylococci make their way into it and there exert a positive chemotactic action resulting in a greater or less degree of pustulation.

Unna holds a different view from that of Bockhart. In 1899 he reported that he found in large numbers in the skin in eczema a coccus which he named the "morococcus" from the fact that it tended to be arranged in groups like mulberries. His observation received little support. Moreover, it was soon shown that the morococcus, was probably the same as the staphylococcus epidermidis albus; and lately Unna has given up the belief that the morococcus is the cause of eczema. Unna, however, still believes in the microbial theory. He has isolated twenty-three cocci in a case of eczema. Of these twelve are harmless and eleven pathogenic. Two of the pathogenic varieties, which he has named "Neufang" and "Traubelpaas" after the names of patients from whom they were taken, are capable of producing an eczematoid eruption when inoculated on the skin.

Sabouraud, who may be taken as representing the French school, although believing in the amicrobic origin of eczema, holds the opinion that several dermatites which are now generally described under the heading of eczema are caused by infectious agents. He has given the name streptococcic epidermatitis to certain of these eruptions. These may be secondary boils, abscesses or other pus infection. Frequently they begin as intertrigoes, which may become moist, fissured, and spread either by continuity or by the formation of new foci on various parts of the skin. The eruption which is so frequently seen behind the ears of children is frequently a form of the disease. In some cases, especially in the anemic and debilitated, the eruption spreads widely and may become universal. The character of the eruption is variable. It may be characterized by scaly patches, moist surfaces, or vesicles. As a rule itching is not a marked symptom which character aids one in distinguishing it from eczema. The distribution is somewhat similar to that of seborrheic eczema, but the latter disease is generally secondary to a similar affection of the scalp.

Perleche is another affection which is classed with the microbic dermatitis. It is characterized by whitish patches, usually fissured, situated at the commissures of the lips. In some cases the dermatitis extends on the skin of the cheek, but this is unusual. The whitish soddened patch resembles a syphilitic mucous patch.

The problem which one has to solve in these cases is the mode of extinction of the dermatitis. How, for instance, a discharging abscess produces a dermatitis in the adjacent skin as well as in distant parts. The observation of Bockhart, referred to above, that a filtered bacterial culture, rubbed on the skin produces an eczematoid dermatitis, affords an explanation of the extension by continuity, but does not fully explain the extension to foci in distant parts, because it is improbable that sufficient toxin can be carried to parts of the skin at a distance from the primary focus to produce the irritation. Here one must seek another explanation; and I think the modern theory of anaphylaxis is one at our command. I shall refer to this again in the consideration of anaphylaxis and sensitization of the skin.

THE AMICROBIC THEORY OF THE ORIGIN OF ECZEMA.

This view is generally accepted by the French and, I think, the majority of British and American dermatologists. It is not denied by these that bacteria take part in the evolution of the

eruption, but it is asserted that the primary lesions of eczema are at first sterile and only become secondarily infected. I shall briefly call attention to some data which appear to support this theory. This for convenience of description will be considered under the following headings:

(a) The Arithmetic Diathesis as a Predisposing Cause of Eczema.

(b) Disturbances of Metabolism as Causes of Eczema.

(c) The Influence of Anaphylaxis in the Etiology of Eczema.

(a) THE ARITHMETIC DIATHESIS AS A PREDISPOSING CAUSE OF ECZEMA.

The arithmetic diathesis or arthritism is a particular form of nutrition which appears to predispose a person in which it exists to certain diseases especially eczema, asthma, bronchitis, migraine, gout, renal calculus and diabetes. Bouchard defines it as a sluggishness of nutrition; Landouzy, bradytrophie. The condition appears to develop under the new conditions imposed by civilization which tend to develop the cerebral faculties at the expense of the bodily.

The arthritic person may be lean or fat. The lean type, according to my experience, is especially liable to eczema, asthma and bronchitis; the fat type, to eczema, bronchitis, gout and diabetes. It is unusual to find all these ailments in the same individual, but several may be present in the history of a family. One member of a family may suffer from asthma; a second from eczema; a third from migraine; a fourth from gout or mild diabetes.

The arthritic person is especially predisposed to eczema; and it will be found that if there is marked arthritic diathesis in the family history, the eczema is difficult to cure. It would appear, therefore, that the metabolic or nervous disturbance which is the basic cause of the diseases to which the arthritic person is predisposed is a cause of eczema. The question for us to determine is, what is this disturbance? The problem is a very difficult one and it is unlikely that it will be solved in the near future. The diseases, (eczema, asthma, migraine, gout, diabetes, etc.), which

are in some way etiologically linked together, are so diverse clinically that one cannot suggest any mechanism by which one agent can be an etiological factor in all.

For instance, eczema and asthma are two diseases, which occur so frequently in the same patient, either co-incidentally or at different times that there can be no doubt that they are etiologically related.

Now in asthma we have spasm of the bronchial tubes brought about reflexly by irritation of other parts, especially the mucous membrane of the nose; and in eczema we have a catarrhal inflammation of the skin. I see no way of linking these together except by considering them as both being primarily due to nutritional or nervous disturbance which in one case results in a hypersensitive condition of the nervous system to reflex action and in the other to a hypersensitive condition of the skin which with the least possible irritation results in inflammation.

(b) DISTURBANCES OF METABOLISM AS A CAUSE OF ECZEMA.

The etiological relationship of disturbances of metabolism to eczema has not been definitely determined. Some dermatologists who look upon eczema as a local disease believe that metabolic disturbances play little or no part in the etiology of the affection. There are others who hold the opposite view, asserting that disturbances of metabolism are very important. I may state that I am decidedly in favor of the latter. In the history of patients with eczema, one frequently gets a history of excessive eating, but a much more important sign showing the relationship is the great value of partial or absolute starvation in the treatment, especially of acute cases. I know of no measure more valuable than this in the treatment of the disease.

With regard to the question whether the harm results from the excessive eating of proteins, fats or carbohydrates, I have not formed any definite opinion. In practice I usually blame the proteins, order a diet of low protein content, and free from meat and fish. I also order that the patient drink no tea or coffee, because these beverages contain considerable purin bodies which it is reasonable to suppose, might prove harmful especially in an arthritic.

(c) THE INFLUENCE OF ANAPHYLAXIS IN THE ETIOLOGY OF ECZEMA.

The term anaphylaxis is used to designate a hypersensitive condition of the body to foreign substances. It is merely a theory

or hypothesis formulated to explain certain facts which have been observed in experimenting on lower animals and also in the treatment of disease. Some of the most important of these observations are:

I. Magendie, in 1837, observed that a rabbit which had received an injection of albumin without ill effects might die from the second given some days later.

II. Von Behring, in experimenting on guinea pigs with diphtheria antitoxin, found that the second dose given at an interval after the first might prove fatal.

III. Richet, in 1902, experimenting with poisons of certain actinians in dogs, found that the second dose given after an interval of some days invariably produced a greater effect than the first.

IV. Arthurs, in 1902, found that a single dose of horse serum given hypodermically produced no effect, but that repeated doses not necessarily in the same place produced edema, sloughing and ulceration. He also found that an intravenous injection administered some time after a subcutaneous injection caused death.

V. Theobald Smith found that a single dose of horse serum injected into the peritoneal cavity of a guinea pig produced no action, but that repeated doses frequently resulted fatally. The fatal result only occurred in animals which had been given a dose several weeks previously.

The theory of anaphylaxis was introduced to explain these facts. It is thought that the introduction of a substance usually a protein, and foreign to the tissues, subcutaneously intravenously or possibly by the mouth may make the animal hypersensitive to a second dose of the same substance given some time later. The first is called the sensitizing and the second the reacting dose.

In experimenting on animals there must be at least one week after the first dose before the animal becomes sensitized. This interval is called the period of incubation of the anaphylactic state.

In animals the manifestations of anaphylaxis come on almost immediately after the giving of the reacting dose. In some cases they appear in a few seconds. The length of time depends a good deal upon the rapidity of absorption.

The symptoms of anaphylaxis are variable. In some cases there is bronchial spasm; in others cardio-vascular disturbance; in others again edema and erythema of the skin. It would be impossible to mention all the symptoms which may occur.

The period of duration of the anaphylactic state may vary from a few weeks to several years. In rabbits it has been shown that the hypersensitive state of the mother rabbit can be transmitted to its young.

The theory of anaphylaxis which was first introduced to explain the phenomena observed after the injection of albumins and serums was later expanded so as to include many other phenomena. Rosenan and Anderson showed that the anaphylactic state could be produced by the injection of dead bacteria. This, at once, suggested that the cutaneous reaction observed by von Pirquet in patients with tuberculosis was probably a manifestation of anaphylaxis. The fact that von Pirquet's reaction once established generally remains through life even in the absence of symptoms of tuberculosis in the patient may be explained in this way.

The theory of anaphylaxis also affords an explanation of the appearance of eczematoid eruptions after bacterial infection of the skin. It may be supposed that the body becomes sensitized by solution of bacteria in an abscess or other primary affection, and that a later inoculation produces the eruption.

An observation which has a very important bearing on practical medicine was made by Bruck, who showed that rabbits and guinea pigs could be sensitized by feeding crab meat, hog and sheep serum per os.

If an animal can be sensitized by feeding per os, then it is quite reasonable to believe that the idiosyncrasies to certain food stuffs such as mussels, sausages, strawberries, etc., are due to an anaphylactic state.

Again one may, with reason, suggest that eczema is a manifestation of anaphylactic reaction. It may be supposed that a hypersensitive state is inherited or acquired. The arthritic diathesis, which we know is so frequently present in patients with eczema, may be due to a hypersensitive state of the tissues. The excessive eating of meats, which I believe is a cause of eczema, may result in the same condition.

Medicine

GRAHAM CHAMBERS, R. J. DWYER, GOLDWIN HOWLAND,
GEO. W. ROSS, WM. D. YOUNG.

The Gastric Contents in Gastroptosis. By THOMAS R. BROWN,
M.D., BALTIMORE. *New York Med. Jour.*, Sept. 16.

The digestive signs of gastroptosis are stated by authorities to be either superacidity, diminished acidity or motor weakness, that is, they vary in different cases. Brown quotes his experience of new cases, which shows achylic in 14, diminished acidity in 14, and increased in only four.

The extent of the diminution in acidity depends on the degree of prolapse, while cure of the functional disorder is produced by the improvement of the prolapse.

The Pituitary Body. By CHARLES W. HITCHCOCK, M.D., DETROIT,
MICH.

The pituitary gland is anatomically composed of an anterior lobe of nervous origin and a posterior lobe of nervous origin.

Physiologically it appears to have a marked influence over the other ductless glands, and its complete removal leads to death of the individual.

Hyperactivity of the non-nervous portion is associated with gigantism and acromegalia, while its atrophy or partial ablation leads to a disturbance of adiposity, infantilism and a loss of adult sexual characteristics.

The post part of the gland causes rise in blood pressure, slowing of pulse and increased flow of urine, also pupillary dilatation, inhibition of pancreatic secretion. Resections into the sexual glands are shown by impotence and amenorrhoea, with the pancreas by glycosuria, in lesions of the pituitary.

Physiologic Therapeutics

J. HARVEY TODD.

The X-Ray as a Curative Agent in Malignant Tumors. ASPINWALL JUDD, M.D., New York. *Medical Record.*

Two rays are present in a rontgen tube, the X-ray and the cathode ray.

The physiological action of the cathode stream in a low tube is of sunlight intensified, producing hyperemia, and in its fullest extent, escharosis. The penetration is low (6 m.m.) and only valuable in skin lesions.

The X-ray in a high tube penetrates all substances with a velocity proportional to their density, travels in straight lines, has a selective action on diseased tissues, and at first is stimulating. When this effect is intensified it produces overstimulation with destruction of the cell through fatty degeneration. Upon connective tissue the stimulation produces an exaggerated adult type of connective tissue, i.e., fibrous tissue. Upon connective tissue growths, i.e., sarcoma, its effect is to transform the sarcoma to a fibromata. Upon glandular tissue its final action is to produce a death of the cell elements.

About 90% of epitheliomas without metastases or glandular involvement can be cured by this means. Malignant angiomata react most favorably to the X-ray.

In deep seated carcinoma raying is justifiable only when the growth is inoperable and is useful only to alienate pain. The post-operative raying of malignant conditions, I thoroughly approve, and this as soon as healing is complete.

Sarcoma reacts readily to X-ray treatment, but is very prone to recurrence, such recurrences, however, react as well as the original growth.

In treating a deep-seated tumor of any type we must select a tube with the greatest penetration, and the patient should be protected carefully.

In lymphosarcoma we have a type of malignant growth in which the X-ray is peculiarly efficacious. Treatment should be early and energetic.

J. H. T.

Obstetrics

ARTHUR C. HENDRICK.

The Midwife Problem.

The results of a letter of inquiry containing fifty questions addressed to teachers of obstetrics in various medical schools giving a four-year course are reported and discussed by J. Whitridge Williams, Baltimore (*Journal A. M. A.*, January 6). He finds the condition of affairs unsatisfactory. Forty-three replies in all were received to the 120 letters sent out, the answers representing one-half of the acceptable and one-fifth of the non-acceptable medical schools. From these answers received, Williams concludes that, generally speaking, the medical schools are inadequately equipped for teaching obstetrics, one only have an ideal clinic, and that one not Johns Hopkins. Many of the professors are poorly prepared for their duties and do not properly appreciate their obligations as teachers. Some admit they are not competent to perform the major obstetric operations, and consequently can be expected to do little more than train men-midwives. Many of them admit their students are not prepared to practise obstetrics on their graduation, nor do they learn to do so later. One-half the answers say that ordinary practitioners lose proportionally as many women from puerperal infection as do midwives, and over three-quarters say that more deaths occur from faulty operations than from infection in the hands of midwives. Reform is needed, and the following measures are, in his opinion, most important: A. Reduction in the number of medical schools, with adequate facilities for those surviving and higher preliminary education on the part of students. B. Insistence in university medical schools that the head of the department be a real professor whose prime object is the care of hospital patients, the proper training of assistants and students and advancement of knowledge rather than a prosperous medical practice. C. Recognition by medical faculties and hospitals that obstetrics is one of the fundamental branches of medicine, and that the obstetrician should be a scientific man with a broad grasp of his subject. D. Education of the general practitioner to realize that he is competent to conduct only normal cases of labor and that major obstetrics is major surgery, to be undertaken only by specially trained men in the control of abundant hospital facilities. E. The requirement by State exam-

ining boards that every applicant for license to practice shall show that he has had personal experience with at least ten obstetric cases under appropriate clinical conditions. F. Education of the laity that poorly trained doctors are dangerous and that most of the ills of women result from poor obstetrics, and that poor women in fairly well-conducted free hospitals usually receive better care than well-to-do women in their own homes; that the remedy lies in their hands, and that competent obstetricians will be forthcoming as soon as they are demanded. G. Extension of obstetric charities—free hospitals and out-patient services for the poor and proper semi-charity hospital accommodations for those in moderate circumstances. He would also advise a greater development of visiting obstetric nurses and helpers trained to work under them and the gradual abolition of midwives in large cities and their replacement by obstetric charities. If midwives are to be educated it should be done properly and not in a makeshift way, and even then disappointment will probably follow.

TUBERCULOUS LUNGS.

Freidrich (*Mün. med. Wochen.*) treats tuberculous lungs by total mobilization of the chest wall,—thoracoplastic pleuro-pneumolysis. Fourteen of his patients are in fairly good health up to the present time. Fine results have been obtained by him in thus immobilizing the lung, inducing a pneumothorax. In 1888 Quincke was the pioneer in this line, and the Warburg clinic has a record of twenty-eight operations, where resection of more or less ribs has been done over the cavity. Patients under 15 and over 40 are not accepted. The mortality has been 26 per cent.

BRONCHIAL ASTHMA.

Lemann (*Am. Jour. Med. Sciences*) states iodide is the sheet anchor in the treatment of this distressing condition. By it the paroxysms and severity are diminished. Large doses are not needed, so the stomach is saved. From ten to fifteen grains of potassium iodide, three times a day, for several months, and then given for periods of ten days with ten days' interval of rest. Sometimes he directs the iodide to be taken for the first ten days of each month.

Reviews

Practical Electro-Therapeutics and X-Ray Therapy. By J. M. MARTIN, M.D., St. Louis, C. V. Mosby Co.

A well written book for the general practitioner and student, giving in a concise manner an excellent introduction to the many uses of electricity in therapeutics.

The chapters on high-frequency currents are particularly interesting and instructive. Unfortunately, the author has given practically no space to an important part of electro-therapeutics, *i.e.*, Phototherapy.

J. H. T.

Direct Laryngoscopy, Bronchoscopy and Esophagoscopy. By Dr. W. BRUNINGS, translated and edited by W. G. Howarth, M.A., M.B., Camb. F.R.C.S., Eng. London: Bailliere, Tindall and Cox, 1912. Medium 8vo., xiv.+370 pages, 114 illustrations, including 26 plates, price, 15s. net.

This book—a standard text-book on the continent—should become the same here, since it has been well translated into English. The author, who by his mechanical ingenuity in the devising of instruments has done so much to simplify and render perfect the various operative procedures, treats of his subject both from the technical and the practical standpoints. “For the skilled observer there are many wearisome details that might well have been omitted, but daily experience in my endoscopic classes has convinced me that the written description must include the most elementary details, if it is in any way to replace personal instruction. Therefore minute details are given as to anesthesia, position, to size of tubes, and to the manner of their introduction. Naturally the author favors and describes the use of his own set of instruments, the most satisfactory, in the reviewer’s opinion. The mirror of the electroscope has been modified, being slotted instead of solid, thereby simplifying the technique. Chapter IV, on the trachea and bronchial tree, contains many interesting anatomical and physiological data. Chapter VII. is on esophagoscopy in which the author says “Its eminent services are so generally recognized that the unjustified use of esophageal probangs and blind

extraction instruments, as also unjustified delays in the case of dangerous disease of the esophagus, must in future be decidedly condemned."

The book can be recommended, and should be in the possession of all interested in and practising this branch of work.

G. B.

Dental Examination Papers. For the Diplomas* of the Royal College of Surgeons, Edinburgh, and the Royal Faculty of Physicians and Surgeons, Glasgow. Price, 1 shilling. Edinburgh: E. and S. Livingstone.

This is a paper bound book of 60 pages of examination questions, well arranged, covering the entire curriculum. They extend over several years.

Fellowship Examination Papers. For the Diplomas of the Royal College of Surgeons, Edinburgh. Price, 1 shilling. Edinburgh: E. and S. Livingstone.

This is a paper bound book of 68 pages of examination questions, well-arranged, covering the entire curriculum and running from 1906 to 1911. Applicants for the Fellowship Examination will find these questions, convenient and handy.

The C. V. Mosby Company, of St. Louis, has announced the publication of a book on Pellagra, to be ready by January 1, 1912. This book is being prepared by Doctor Stewart R. Roberts, of Atlanta, Ga., who has just returned from Italy, where he studied the disease in its natural habitat. While in Europe the doctor made extensive research regarding the etiology and treatment of pellagra, and the data contained in the book will reflect the latest and best work that has been done in connection with this disease, making it a reliable guide to those seeking information on the subject.

Diseases of the Ear. By MILLIGAN AND WINGROVE, a practical handbook for senior students and practitioners. Toronto, The MacMillan Company of Canada.

It is seldom that one sees in a "handbook" such a mass of detail, such an extensive treatment of the subject as appears in this excellent work. One can gather a good idea of the method and the extent of the treatment by a mere perusal of the index which is most admirably arranged for quick reference.

The arrangement of the text also is very practical and the illustrations, many of which are colored, serve to elucidate the surgical and pathological description in a very complete manner.

We are pleased to make a special chapter upon examination of the blood and aural discharges, which have assumed such importance in modern otology.

One of the best portions of the work is that devoted to the labyrinth, for in this we have the latest researches, coupled with the author's extensive experience.

There is considerable space devoted to a description of the diseases and conditions of the nose and throat, which have direct bearing upon the ear. The authors are to be congratulated upon the production of what we think is the best and the most comprehensive text-book upon diseases of the ear in the English language, and a work which would be a useful addition to the working library of any practitioner. We might also add that the book is gotten up with the usual good taste of the publishers, Messrs. MacMillan and Co.

G. R.

International Clinics. Volume I. Series 22, 1912. Philadelphia, London and Montreal. J. B. Lippincott Company.

Wolbarst of New York, gives an excellent paper on the subject of the value and methods of using the three or five glass test in urethral and bladder disease. He is strongly in favor of the catheter glass combination and he ably describes his own experience:—

Surgeon Taylor, U.S.N. writes on venereal disease in the navy, laying stress on his own practice of recommending strict prophylaxis. Cyreax, of London, describes manual methods of treating facial paralysis, and particularly manual vibrations, resistance exercises and stimulating manipulations. His results appear better than electrical methods.

Hexamethylenamine in aural surgery is not overpraised by Hald, the basis for its use is its excretion by the meningeal surfaces.

Finally two papers on dispensing and home sanitarium treatment for tuberculosis close the section on diagnosis and treatment.

Under medicine there is a compact paper by Flexner, collecting the status of our present knowledge of poliomyelitis. Hill writes on diphtheria, particularizing on the use of large doses of antitoxin, and Parkes Weber describes two interesting cases, one with multiple hemorrhages, the other with antiperistalsis, both of functional origin. James J. Walsh has probably the most valuable paper in the book, describing the masked forms of diabetes, and his article is most instructive in showing misleading symptoms.

An article on pellagra and on a new portable water vacuum pump appear rather unnecessary.

Surgical Papers are only three in number, one describing a successful transplantation of a testicle which, however, subsequently atrophied; the second on tic douloureux operations, alcohol, peripheral incision and gasserian; and a third on inguinal hernia. Of the remaining papers, that on the surgical anatomy of the female perineum is the most interesting. A review of medical progress for 1911, closes the volume and its main interest is its section on irregular heart and auricular fibrillation. In brief, the volume contains much that is good, some that is indifferent and nothing that is useless.

G. W. H.

Nervous and Mental Diseases. By ARCHIBALD CHURCH, M.D., Professor of Nervous and Mental Diseases and Medical Jurisprudence in Northwestern University Medical School, Chicago; and Frederick Peterson, M.D., Professor of Psychiatry, Columbia University. Seventh edition, revised. Octavo volume of 932 pages, with 338 illustrations. Philadelphia and London: W. B. Saunders Company, 1911. Sole Canadian Agents, The J. F. Hartz Co., Ltd., Toronto. Cloth, \$5.00, net; half morocco, \$6.50, net.

There is no question in my mind to stating this fact, that of all the works on nervous and mental diseases that are for sale, there is no book on the market which is more valuable than this work of Drs. Church and Peterson.

The volume is not only compact but it is complete and it covers the whole subject in the most satisfactory manner. The brevity of the part allotted to physical diagnosis is expanded under the individual diseases.

The primary chapters on diseases of the nerves are superbly written, with excellent plates and references that show wide reading.

I know of no more satisfactory volume for a man requiring a moderate knowledge of nervous and mental diseases.

G. W. H.

TUBERCULOSIS.

Radcliffe (*The Lancet*) reviews recorded statistics and estimates 20 to 25 per cent. of patients cured under sanatorium treatment. With a combination of tuberculin and sanatorium treatment fifty per cent. of the patients lose their tubercle bacilli.

DIABETES.

Cambridge (*The Lancet*) says, everything depends in the treatment of diabetes, upon systematic dietetic measures, early employed. This diet should be prescribed quantitatively, as well as qualitatively in well-marked, mild or even transient cases of glycosuria. The patient needs to be taught how much fermented food he may, and must take. At first it should all be weighed until the eye can estimate the quantity.

ANAL FISSURE.

T. C. Hill, (*Boston Med. and Surgical Jour.*) says, palliative treatment is all that is required for simple fissure, without hypertrophy. Where there is slight hypertrophy, excision is sufficient. If moderate degree only dilatation under anesthesia is the best treatment, but if much hypertrophy and spasm excision is the only thing to give permanent relief. At the present time it is better to divide the fibres of the external sphincter muscle through the base of the fissure just to the right or left of the posterior median line, without regard to the location of the ulcer. The incision is to be made at right angles to the muscle fibres, carried outward an inch to secure good drainage. The internal sphincter must not be injured.

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COMMENT FROM MONTH TO MONTH.

"T-i-t-a-n-i-c" spelled the last word in naval architecture. Giant of the Seas, early on the morning of the 14th of April, she went headlong to her destruction, and the whole civilized world was immediately plunged in overwhelming and stupifying horror.

Philanthropist and millionaire, great railway promoter, and distinguished *litterateur*, financier, physician, lawyer, musician, officer, engineer, stoker, sailor, immigrant, men and women in every walk of life—dived into eternity with a calmness beyond conception.

Only when the sea gives up its dead will the truth of the whole horrible calamity be revealed.

From out the dark, tragic gloom shines the splendid heroism and nobility of soul. Not the least of these is that honored band of musicians.

For forty years a sailor physician, Dr. William Francis Norman O'Loughlin, the senior surgeon of the White Star line, died a hero's death, bravely performing his duties to the last.

Nor can one fail to admire the unshaken nerves of the fearless and intrepid wireless operators. There were many acts of true chivalry. Humanity can but sorrow over the lost, and rejoice over the saved.

Dominion Medical Registration we referred to in our last issue, but through a typographical error, the date of passing the original Act was given 1892, when, as is well known, it should have been 1902.

In a letter to the *Ottawa Citizen*, which we reproduce herewith, Dr. R. W. Powell, himself an ardent advocate and earnest worker for this cause, suggests what we heartily endorse, namely, Imperial recognition to Dr. Roddick. A referendum to the Canadian medical constituency would meet with a unanimity of affirmation; and the entire medical profession throughout Canada would hail with infinite gratification and satisfaction due and proper recognition of Dr. Roddick's great services to Canadian medicine, along the lines suggested by Dr. Powell.

EDITOR CITIZEN.—It seems only right that credit should be given where credit is due and there is no doubt that hearty congratulations are due over and over again to Dr. T. G. Roddick of Montreal for the noble work he has accomplished at last for the profession of medicine and surgery in this Dominion. After years and years of patient personal labor and the expenditure of brains, money and time, which he never spared, he now sees the fruits of his work and the session of the Ontario Legislature just closed witnesses the final act by the passage of an amendment to the Medical Act, which makes the way plain for the Dominion authorities to now organize and bring into force a Dominion Medical Council, which will be authorized to arrange for the granting of licenses to practise medicine and surgery and such licenses will henceforth be recognized by every province in Canada and the holder thereof be entitled to practise his profession wherever he chooses within the borders of the Dominion.

It is too long a story to print in a daily paper, but it will suffice to say that this idea has been prominent in the minds of the profession and has never once been lost sight of since 1867, the year of Confederation, when the scheme was first mooted, when Sir Charles Tupper, M.D., was president of the Canada Medical Association.

Great obstacles had to be overcome, compromises of various kinds had to be conceded and much diplomacy used. It is well known that Dr. Roddick sought a seat in Parliament for the express purpose of being in a position to further this important work. What he did and how he worked will never be known to anybody, but the writer of this letter is personally aware of a great deal of it. Prejudices of all kinds had to be overcome, but

Dr. Roddick's pluck never for one instant failed him and in 1902 he accepted the bill then put on the statute book, emasculated as it was, and rendered inoperable, by the insertion of a few words that compelled all the provinces to agree to its provisions before it could be brought into force. This I say was accepted by Dr. Roddick as a stepping stone and now after ten years further work he has the satisfaction of knowing that he has succeeded in bringing all the provinces into line and the enabling clause has been passed by all the legislatures.

I do hope that Dr. Roddick's work will be duly recognized, by the powers that be, because his labors have been truly Imperial and will place Canada in the foremost rank as regards medical registration.—(Sgd.) R. W. POWELL, M.D.

180 Cooper St., Apl. 27, 1912.

The Seventeenth International Congress of Medicine will be held in London, August 6th—12th, 1913. The Canadian representatives are: Executive Committee—Dr. W. H. B. Aikins, Toronto; Dr. A. McPhedran, Toronto. Organizing Committee—Dr. George Armstrong, Montreal, President of the Canadian Medical Association; Dr. C. K. Clarke, Dean of the Medical Faculty, University of Toronto, Dr. J. C. Connell, Dean of the Medical Faculty, Queen's University, Kingston; Dr. H. H. Chown, Dean of the Medical Faculty, University of Manitoba, Winnipeg; Dr. E. P. Lachapelle, Dean of the Medical Faculty, Laval University, Montreal; Dr. F. J. Shepherd, Dean of the Medical Faculty, McGill University, Montreal.

Safe water supplies in the control of typhoid fever are absolutely essential.

As pointed out in a reprint from the Public Health Reports of the United States, by Allan J. McLaughlin, these must be safe for 365 days of the year, as it is not sufficient to have a safe supply for 360 days, and boiled water for the other five.

It is lamentable that the average citizen and even the average medical man, takes such scant heed of sanitary problems; and even in an altogether preventable disease as typhoid fever, look with complacency upon a mortality rate of 20 deaths annually in 100,000 population.

In the matter of a low death rate, European cities put American sanitation to the blush. Ten European cities, representing a

population of 15,000,000, show an average death rate for ten years of 3.4 per 100,000 of the population. For 1910, these same 10 cities show a mortality rate in typhoid of 2.5.

Compare these statistics with the fifty cities of the United States having a population of over 100,000. One city has a death rate of 5. Three have rates below 10 in 100,000. Twenty-two other cities have rates from 11 to 20, while the remaining 24 cities have rates running from 20 to 86. This is astounding.

On the average then, in every 100,000 of the population of the United States there have been 18.5 deaths and 180 cases of typhoid fever which should have never occurred; and a conservative estimate for 1910 places the deaths from typhoid fever above 25,000. Then when it is remembered that in the smaller cities and rural districts the rate is in general, higher, the conclusion is drawn that the typhoid death rate in the United States is not below 25 in 100,000 of the population.

If these deaths all occurred at one spot at one time the world would be as much horrified as by the dreadful maritime disaster of the past month, and would awake to the great opportunities sanitary science and public medicine present in the curtailment of all preventable diseases.

Under the patronage of Field-Marshal, His Royal Highness The Governor-General, the Twelfth Annual Meeting of The Canadian Association for the Prevention of Tuberculosis will be held in the Margaret Eaton Hall, Toronto, Monday and Tuesday, 20th and 21st May, 1912, beginning on Monday at 10 a.m.

News Items

DR. J. W. STIRLING, Montreal, has returned from a trip abroad.

DR. R. W. MANN, Toronto, has gone for graduate work to European hospitals.

DR. T. G. RODDICK has returned to Montreal from Atlantic City.

DR. C. C. RICHARDSON has sold his practice in Aurora and moved to Toronto.

DR. CLEMENSHA, Port Hope, died recently in the Toronto General Hospital. The late Dr. Clemensha was one of the most prominent practitioners of Eastern Ontario.

ACADEMY OF MEDICINE, Toronto, has elected the following officers: President, Dr. R. A. Reeve; Vice-President, Dr. H. J. Hamilton; Secretary, Dr. Harley Smith; Treasurer, Dr. W. A. Young.

DR. A. K. HAYWOOD, Toronto, has passed the examinations of the conjoint board of the Royal College of Physicians and Surgeons in England. Dr. Haywood will pursue graduate work some months on the Continent.

DR. D. W. CARROLL, one of the oldest practitioners in Western Ontario, died suddenly in Ingersoll on the 25th of April. He had practised there over fifty years, and left his residence and grounds for a childrens' hospital.

THE Canadian Government spent, in 1910, \$377,485 for the public health service. The Department of Agriculture spent \$146,781; Indian Affairs, \$125,121; Interior, \$66,969; Inland Revenue, \$38,613. Greater efficiency and economy is expected when the health services are all administered under one department.

THE Medical Department of the Western University at London, Ontario, held its annual convocation on the evening of May 2nd. Dr. W. H. Moorhouse presided. The graduating class numbered thirty-eight, the largest in the history of the university, and the second largest in Canada in 1912. Dr. J. Moriarty delivered the valedictory, to which Dr. H. A. MacCallum replied, advocating a million dollar endowment fund for the Medical Department, which would begin next season's work with five professors devoting their whole time to medical teaching.

Publishers' Department

DETROIT, April. Another world's record for automobile shipments has been broken in Detroit. The Ford Motor Company for the past month has exceeded even its own world beating records, having shipped 8004 cars in the twenty-seven shipping days. This is an output absolutely unprecedented in automobile history anywhere in the world—and is a matter of much comment among the automobile contingent of Detroit. Mr. N. A. Hawkins, commercial manager of the Ford Company, is authority for the statement that the tremendous Ford schedule of 75,000 cars to be manufactured in 1912, will be produced on scheduled time as planned. There are indications, however, that the demand will far exceed the supply and that the entire Ford output will be sold before the season is much farther advanced. The company has not been able to keep pace with its bona fide orders. Long ago it made preparations to produce a definite allotment of cars each month of 1912, and it will not exceed this allotment, even at the determined instance of dealers, because it will not run chances of lowering its high standard of production. Mr. Hawkins expects, however, in the current month to see another record smashed.

I HAVE used Resinol Ointment and Resinol Soap in my family and also in my practice for over fourteen years and have never found anything to equal them. I have also recommended them to hundreds of my patients suffering from skin diseases, and they are all grateful to Resinol Ointment and Soap which gave them relief at once.—B. F. Tillyer, D.D.S., Orange, N. J.

PLEURISY AND TUBERCULOSIS.—Every case of "cured" pleurisy should be closely watched for many months after the patient has been actually ill with the disease. It is probably correct to say that considerably more than half such cases develop tuberculosis years after. Indeed Köster, Landouzy and others consider pleurisy with effusion a symptom of existing, though latent tuber-