The Canadian Journal of Medicine and Surgery

A JOURNAL PUBLISHED MONTHLY IN THE INTEREST OF MEDICINE AND SURGERY

VOL. X. TORONTO, NOVEMBER, 1901. NO. 5.

Original Contributions.

"THE PASSING OF THE SURGEON" IN TORONTO.*

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Gentlemen of the Toronto Medical Society:

Since your courteous and self-sacrificing natures have put me in the President's chair, it would ill befit the present occasion if I did not most heartily thank you for the honor—for honor I esteem it—conferred upon so humble a member of our fraternity, in placing me as you did in this unsought-for position.

Upon finding myself enjoying such unenviable prominence, I began to look about me for a subject upon which to address you this evening. I looked to the progress of medicine, and of surgery, and found them worn well-nigh threadbare with over-repetition. In review I passed over such topics as the duties of the medical man as a citizen, the question of medical education, and of medical defence, the surgery of the olden times, and the prevention of tuberculosis and its concomitant wrangles of interested parties with axes to grind. For some time the question of medical ethics held me, for I thought I could call attention to a few matters of daily occurrence that tend to diminish rather than to elevate the dignity of the profession, but I feared it might be unbecoming in one so young to undertake the teaching of his seniors, for although one calls to mind the instruction, "A little child

*President's address at the opening meeting of the Toronto Medical Society, October 3rd, 1901.

shall lead them," one hesitates, in these latter days, to play the role of the little child.

Were I to give a history of the medical profession in Toronto, I fear that my prolixity would weary you. I therefore shall try to give you a few pen pictures of "the passing of the surgeon," describing with as much brevity as the occasion will permit some of the men who attained to a degree of prominence in surgery in Toronto, and see if we may not learn some lessons from a study of their lives—"Lest we forget—lest we forget!"

It will be interesting to you to know that the profession in this city has always been held in high esteem, and deservedly so. As far back as 1850, Clarke Gamble writes: "My opportunities of forming a correct opinion of the medical confraternity during the period referred to are, in consequence of my position, very good—nay, excellent; and I can bear clear, unequivocal testimony to them as a class. And I assert that nowhere could be found a better educated, more skilful, kind, courteous and attentive set of medical men than our community has been blessed with from 1820 to the present time."

From my perusal of a number of works I have learned that medical men rarely become rich in this world's goods, but if one may judge from the records of the historian of their kindness to the poor, many are now reaping rich rewards at the hands of the Great Paymaster.

Many of the men of the past were well cultured, with clear intellects, and of good social standing. Surely we might emulate them in this, for too often in these latter days, with the rush and bustle of a busy life, we neglect the social amenities. If one would but remember that many a boy takes his family doctor as his model, surely he should endeavor to be a model worthy the copy. Many were military men, and a goodly number followed politics as a pastime. Many of them, too, had what Napoleon aptly calls "the two o'clock in the morning courage," for some have even laid down their lives for their patients. I refer particularly to the late Dr. George R. Grasset, uncle of Dr. Fred. Grasset, and to Dr. Hamilton, who contracted typhus during the epidemic of 1847 and who were laid in the martyrs' grave.

I have found here and there on the historic pages accounts of some who advertised freely, lauding their personal talents in the public press of the day. I may say, so far as I can learn, that these men never attained eminence. The giants of the profession in the past did not herald through the public press every trivial operation performed.

It seems befitting that this chronicle should begin with a brief account of Dr. James Macaulay, as his association with Upper Canada began with Colonel Simcoe, its first Governor in 1792.

He was a native of Scotland, born in 1759, and held the

degrees of M.D., and of M.R.C.S.(Eng.), and died at York (now Toronto) January 1st, 1822.

He was senior member of the Medical Board of Upper Canada, organized in 1819; was Surgeon to the 33rd Regiment, and afterward to the Queen's Rangers, Simcoe's own battalion; subsequently he was made Deputy Inspector-General of Hospitals. Some time between 1794 and 1796 he moved to York (now Toronto). His name appears first on the list of Commissioners to oversee the opening of Yonge Street, and in 1803 he was one of a "committee appointed to proceed with the work of building" a church.

He received a patent for a park lot extending from Yonge Street to University and from Queen to College. Near the S. E. corner some lots were laid out and buildings erected, and this part became known as Macaulay Town—the western boundary of York extending then only to George Street. It may be interesting to mention that James Street gets its name from his Christian name, and Elizabeth Street from that of his wife. The homestead was situated where "Trinity Square" now is, and was known as "Teraulay Cottage." The name was formed from the last syllable of his wife's name, Hayter, and from the last two of his own. Teraulay Street doubtless commemorates this romantic name.

He was a man of striking appearance, of medium height, and of fair complexion. Though not actively engaged in practice after the severance of his connection with the army, he did much for the welfare of the medical profession in those early days.

Grant Powell was born in Norwich, England, in 1779, and died at York (now Toronto) in 1838. His father was William Dammer Powell, who afterwards became Chief Justice of Upper Canada, and who presided at the celebrated trial at Niagara immediately preceding the rebellion of 1837. The subject of our sketch was a "Guy's" man. He practised in New York State from 1804 to 1807, and then removed to Montreal, where he remained until 1812, when he came to York (now Toronto) as Surgeon to the Incorporated Militia. Though a surgeon of no mean ability, he virtually retired from active practice when Dr. Widmer settled here. He was one of the early members of the old Upper Canada Medical Board. His son, Grant Powell, is still living in rude health at the age of 82. His grandson, our mutual friend Dr. R. W. Powell, of Ottawa, is the only descendant who followed the profession of medicine.

Christopher Widmer, M.D., F.R.C.S.(Eng.), was born in England about 1780, and died at Toronto, May 2nd, 1858. He served during the Peninsular War as surgeon to the 14th Light Dragoons, and came to Canada with his regiment during the War of 1812. Settling in York (now Toronto) about 1815, he took up his resi-

DR. CHRISTOPHER WIDMER.

dence on Ontario Street, between King and Front Streets. Widmer's name will go down to posterity as the father of surgery in Upper Canada. "His skill," according to Canniff, "was equal in making a diagnosis, in deciding when to operate, and in handling the surgeon's knife or other instrument." According to Clarke Gamble, Widmer and his partner Deihl practically had the whole practice of York and its neighborhood for many years.

He was ever a regular attendant at the Hospital, and always had a large following of students, who held him in high esteem, while laughing at his brusque ways and his frequent expletives; while he was ever ready to give his best skill to the poor *gratis*, if he suspected some well-to-do person of trying to obtain his services gratuitously, his language was such that no printing press could bear the strain of reproducing it.

Scadding, in "Toronto of Old," in speaking of him says: "It is to be regretted that Dr. Widmer left behind him no written memorials of his long and varied experience. Before his settlement in York he had been a staff cavalry surgeon, on active service during the campaigns in the Peninsula. A personal narrative of his public life would have been full of interest. But his ambition was content with the homage of his contemporaries, rich and poor, rendered with sincerity to his pre-eminent abilities and inextinguishable zeal as a surgeon and physician. Long after his retirement from general practice he was every day to be seen passing to and from the old hospital on King Street, conveyed in his well-known cabriolet, and guiding with his own hands the reins conducted in through the front window of the vehicle. He had now attained a great age, but his slender form continued erect; the hat was worn jauntily as in other days, and the dress was ever scrupulously exact; the expression of his face in repose was somewhat abstracted and sad, but a quick smile appeared at the recognition of friends. The ordinary engravings of Harvey, the discoverer of the circulation of the blood, recalls in some degree the countenance of Dr. Widmer."

Peter Deihl was born at Quebec in 1787, and died in Toronto of some internal injury, the result of a fall, on March 5th, 1858.

He studied with Dr. Charles Blake, of Montreal, and then went to Europe for post-graduate work, returning to Canada in 1809. From 1813 till the close of the war he served with the Canadian Regiment, and returned to England in a transport. In 1818 he came again to Canada, and for the next ten years resided at Montreal, having been connected with the General Hospital there. In 1828 he removed to York (now Toronto), and soon after became a partner of Dr. Widmer. He was a man of quiet, pleasant manner and gentle disposition, and a good surgeon. Because of ill-health the partnership was dissolved in 1835, after which he travelled for a time. Returning a year later, he built a

DR. JOHN ROLPH.

residence on Lot Street, near where the Canadian Institute now stands. During the Rebellion of 1837 he was surgeon to the 41st Battalion of Militia under Colonel Hill.

John Rolph was born at Thornbury, England, March 4th, 1793, and died at Mitchell, Ont., October 19th, 1870. He began practice in York (now Toronto) in 1831, and lived in Macaulay Town, about where the present City Hall stands. He became a member of the Medical Board in 1832, was one of Toronto's first aldermen after incorporation, and aspired to the Mayor's chair, but finding this impossible he resigned, to pave the way for Wm. Lyon Mackenzie.

In many ways he was a remarkable man. Finding medicine too circumscribed he became a barrister as well, and it is said that at one time he turned his attention to divinity and contemplated taking orders.

He was closely associated with Wm. Lyon Mackenzie in the rebellion in 1837, and, warned by the late H. H. Wright, then a pupil of his, after the failure of the attempt to take Toronto, he made his escape to the United States. A reward of £500 was offered for his apprehension. During his exile he practised in Rochester until 1843, when he, with others, was allowed to return. The late Dr. H. H. Wright and Dr. J. H. Richardson were pupils who studied with him in Rochester. In 1848 he started the Toronto School of Medicine, and I have been told by the late Dr. Aikins that he would begin at 8 a.m. and lecture on four different subjects in a morning. In 1853 the school was incorporated, the staff having been increased as the number of students multiplied.

My time prevents me from going further into a description of this remarkable man, more than to quote from Dent that he was a man of "a comprehensive, subtle intellect, high scholastic and professional attainments, a style of eloquence which was at once ornate and logical, a noble and handsome countenance, a voice of silvery sweetness," etc.

William Rawlins Beaumont, M.D., F.R.C.S.(Eng.), was born in Beaumont, St. Marylebone, London, in 1803. He pursued his medical studies at "Bart's" and was a dressing pupil of Abernethy. He came to Canada in 1841. In 1843 he was appointed Prof. of Surgery in the University of King's College (now University of Toronto), which post he held for ten years until the abolition of the Medical Faculty, of which he was Dean. He became a member of the Medical Board of Upper Canada in 1845, and took an active interest in the welfare of the profession. In 1870-71 he delivered a course of lectures on Ophthalmic Surgery in the Toronto School of Medicine, and Clinical Lectures at the General Hospital. In 1872 he was elected Professor of Surgery in the Medical Faculty of Trinity College.

Until the time of Aikins he did practically all the surgery that

DR. WM. CHARLES GWYNNE.

was to be done, and for many years afterward the honors were about evenly divided. He was a polished gentleman, an excellent anatomist, and a most finished surgeon, with calm, cool judgment and a delicacy and nicety of operation.

In 1836 he invented and described before the Royal Medico-Chirurgical Society an instrument for passing sutures in deep-seated parts (1), which was greatly admired, and was reputed by Tieman of New York to have been the origin of the Singer Sewing Machine. He invented instruments for tying polypi, a sliding iris-forceps, a speculum, and a probe-pointed lithotomy knife.

He was the author of Essays on the Treatment of Fractures of the Leg and Forearm by Plaster-of-Paris (1831), on Polypi (1838), A Case of a large Cartilaginous Tumor of the Lower Jaw (1850), and contributed Clinical Lectures on Traumatic Carotid Aneurism (2), The Several Forms of Lithotomy (3), A Deeply-Penetrating Wound of the Orbit (5 1-2 inches deep), Recovery (4), Papers on Exostosis of the Scapula, and Aneurism of the Femoral Artery. He made many contributions to the Royal College of Surgeons, England, and to many other collections.

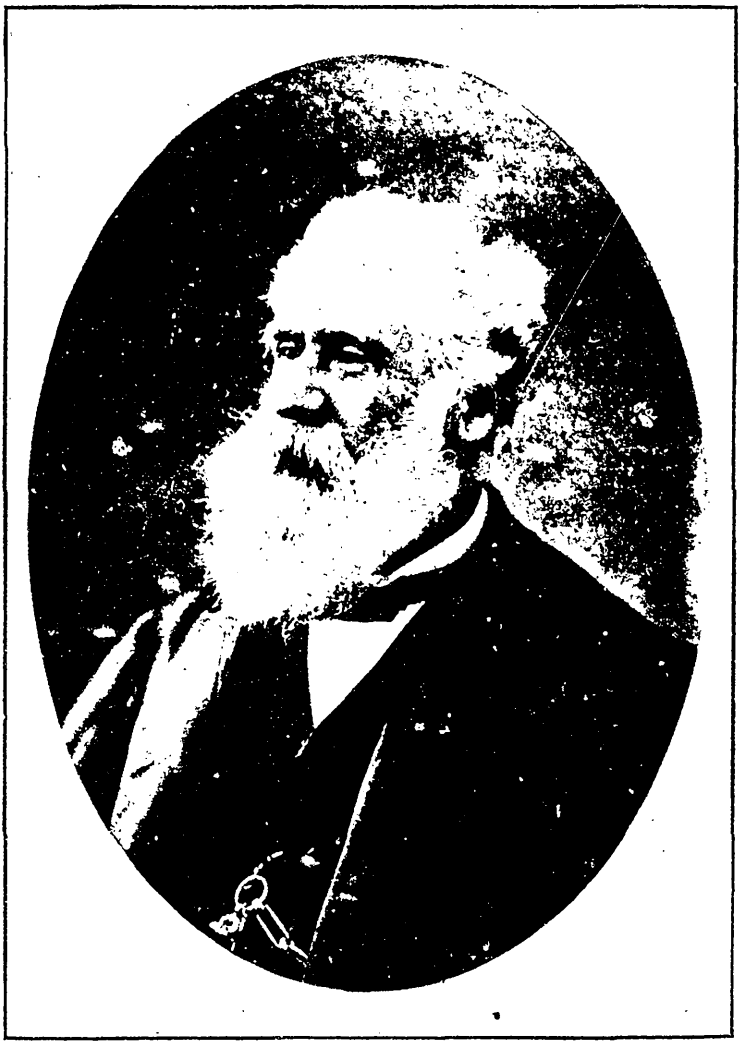
During the Fenian Raid, in 1866, he had charge of the hospital for the wounded at Port Colborne.

In 1866 the sight of the left eye became impaired from acute inflammation, and at length became completely useless; in 1871 the right became affected, and in 1873 he became blind. From then until his death, on October 12th, 1875, he lived in retirement with his family about him.

Wm. Charles Gwynne came as a ship-surgeon to Quebec in 1832, and soon after removed to York (now Toronto) where the cholera was then raging. He entered into his work with enthusiasm and his efforts were oftentimes crowned with success.

He became a member of the Medical Board of Upper Canada in 1838, and always took an active interest in educational affairs. When a student he had learned that blood-letting, then so greatly in vogue, was often unnecessary and even harmful, and as he did not hesitate to express his views, he was oftentimes at loggerheads with his confreres. He was a good diagnostician and a careful surgeon, and when he formed an opinion he held to it with bulldog tenacity. An instance is related of a young man who in a mid-night frolic climbed a lamp-post to put out the light. He fell to the ground and sustained fatal internal injury. At the consultation Gwynne alone contended that he had a ruptured liver, and that death would ensue. A *post-mortem* examination verified his diagnosis.

He was instrumental in the formation of the Medical Faculty in the University of King's College, and in the Commission was designated Professor of Anatomy and Physiology. He designed the building for the first medical college in Upper Canada, which



DR. EDWARD MULBERRY HODDER.

was situated to the west of and adjacent to the Parliament Buildings on Front Street. He worked hard and faithfully with his pupils, one of whom was Mr., and afterwards Dr. Small, who for many years was known as one of the leading physicians of Toronto.

The merging of King's College into Toronto University in 1850 only increased his enthusiasm, but when in 1854 the Medical Faculty was legislated away, he lost all interest in medicine and left the country, but returned again after two years. He died in September, 1875.

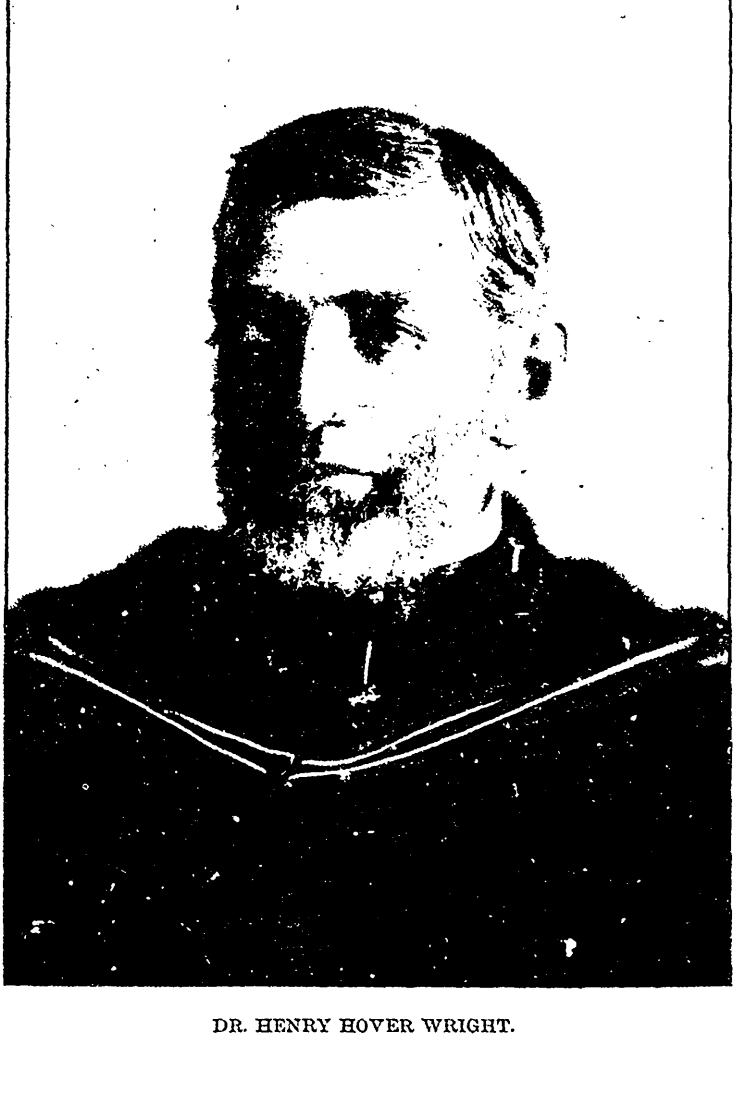
Edward Mulberry Hodder was born in England in 1810, and died at Toronto, February 20th, 1878. As a boy he entered the navy as a "middy," but remained only a year, when he took up the study of medicine. After qualifying as an M.R.C.S. he went to Paris for two years, and then to Edinburgh. He began practice in London, but soon removed to France; finally coming to Canada he settled in Toronto in 1843. The degree of C.M. was conferred upon him by King's College, and that of M.D. by Trinity College in 1845. In 1854 he became a Fellow of the Royal College of Surgeons of England.

In 1850 he, in concert with the late Dr. Bovell—one of Toronto's most eminent physicians—established the Upper Canada School of Medicine, which in the same year became the Medical Department of Trinity College. Afterwards for many years he was a member of the Faculty of the Toronto School of Medicine, but when his old school was again revived in 1870 he was appointed Dean of the Faculty, which post he held until the time of his death. He was on the Active Staff of the General Hospital, and of the Burnside Lying-In Hospital. He was President at different times of the Upper Canada Medical Board, of the Toronto Medico-Chirurgical Society (1862), of the Canadian Medical Association (1875), and represented Trinity Medical College on the Medical Council from 1872 till the time of his death.

Though he was devoted to his profession, he found time for recreation, and was a lover of sailing. He was, I believe, largely instrumental in the formation of the Royal Canadian Yacht Club. Clarke Gamble, in speaking of him, says: "His name was a household word in Toronto; skilful, cautious, affable and handsome, he was a universal favorite, particularly with the gentler sex." He was an able surgeon, and is said to have been the first man in Canada to do the operation of ovariotomy.

An article from his pen on the transfusion of warm milk into the veins of cholera patients has been published (5).

James Ackland De La Hooke came to Toronto in 1839, and received a license from the Medical Board of Upper Canada, being the first to receive its diploma. He afterwards went to Weston, and from there to Goderich, and then to several other places, re-



DR. HENRY HOVER WRIGHT.

turning to Toronto in 1870, where he resided until the time of his death a year or two ago. During his residence on the London Road he operated upon an irreducible compound fracture of the femur, and of the tibia and fibula, by sawing off the projecting ends of the bones, which allowed the parts to come into apposition, and a good result ensued. Many amusing anecdotes are told in Canniff's book, but time will not permit of their telling here.

Henry Hover Wright was born in Prince Edward County, and died in Toronto on the 9th of March, 1899. He began the study of Medicine with Dr. Rolph in 1832, and remained with him till Rolph had to leave the country in 1837. Wright followed him to Rochester and remained a little more than a year. Returning to Toronto in 1839 he got his license to practise. For a short time he lived in Dundas, afterwards in Markham, and in 1853 he came to Toronto and became a lecturer in Rolph's School. During his early years Dr. Wright practised surgery as well as medicine, and had the reputation of doing good work. When, however, he and Dr. Aikins became closely associated in the Toronto School of Medicine, after the split with Rolph, Wright stuck more closely to medicine and Aikins to surgery. We younger men, of course, remember him as a physician, and affectionately recall him as our old teacher, while some of the older men tell us of the operations done in his earlier days. Dr. Wright did much to elevate the standard of the medical profession, and was noted for his honest endeavors and for his tenacity of purpose.

I have met many of his old patients both in and outside of the city, and one and all bear testimony to his kindness, courtesy and self-sacrifice.

His son, Dr. Frederick H. Wright, followed in his father's profession, graduating in 1872 from the University of Toronto, after which he studied at St. Thomas's, where he was a great favorite with Dr. Peacock. After taking the English qualification he became resident physician in the Victoria Park Hospital for Diseases of the Chest. He afterwards practised in Toronto, and was a most skilful diagnostician. His health failed, and he died April 19th, 1882.

Cornelius James Philbrick was born in Colchester, England, in 1816, and died at Toronto, December 2nd, 1885. He was a Fellow of the Royal College of Surgeons of England, and came to Toronto about 1850, settling in what was then known as Yorkville, and residing at the corner of Church and Bloor Streets. He was an able, clever surgeon, and had an accurate knowledge of anatomy. He had many little eccentricities that afforded both his friends and enemies alike many a laugh. In 1852 he was Professor of Surgery in Trinity College. To quote from Canniff's book, "A marble slab covers his grave, on which is inscribed the date of his death, and these words: 'Having practised his profes-

DR. JAMES H. RICHARDSON.

sion in this city with credit and distinction thirty-four years,' and near the foot set in the marble, is the door-plate with the words, 'Mr. Philbrick, Surgeon.'"

Norman Bethune, M.D. (Edin.), M.R.C.S. (Eng.), F.R.C.S. (Edin.), was born at Moose Factory, Hudson Bay, in 1822, and was the son of Angus Norman Bethune, who for fifty years was in the employ of the North-West and Hudson's Bay companies. He died at Toronto, October 12th, 1892.

He entered King's College (now the University of Toronto) in 1843. Afterwards he took post-graduate work at "Guy's" and at King's College, London. Returning to Toronto in 1849, he began practice. For years he was a professor in Trinity Medical College. Bethune was an athletic-looking, well-built man, a perfect gentleman, a finished scholar, a polished surgeon, and an amateur artist of considerable ability, as the sketch before you will demonstrate. The skeleton in the centre is said to represent Widmer; the one to the left King; and the one about to "play the game" is, I think, Herrick.

I am indebted to Dr. O'Reilly for allowing me to have this slide made from a copy in his possession.

William Thomas Aikins, the father of Dr. H. Wilberforce Aikins, was born at Burnhamthorpe, Ontario, in 1827, and died at Toronto, May 24th, 1897. He obtained his medical education at Jefferson, from which College he graduated with high honors and soon after began practice in Toronto. He became a lecturer in the Rolph School in 1850, and the Toronto School of Medicine in 1856. For nearly twenty years he was president of the Toronto School of Medicine, and when in 1887 the University of Toronto took this over as its medical faculty he was made Dean, and deservedly so, for he entered heart and soul into the negotiations, believing that such an arrangement meant much towards the progress of medicine in this Province. He held this position until 1893, when because of failing health he found it necessary to relinquish some of his work. In both institutions he held the post of Professor of Surgery, and was looked upon as one of the ablest surgeons on this continent. As a teacher of the practice of surgery he had few equals, his style was impressive, his advice good, and his methods of teaching practical.

Many a graduate has gone into the backwoods places to practise filled with excellent ideas as to how to deal with surgical emergencies. Associated with him as I was for nearly two years, as a student in his office, and "soop" at the old school, I learned to love him as I would a father and to respect his ability as a surgeon, and as the years rolled on this respect grew and grew. As I remember him, he was kind and unselfish. Many times in later years have we chatted together, and of one theme he never tired talking, namely, that so many of his old pupils were taking lead-

ing places in surgery in this city and Province. Nothing pleased him more than to hear of one of his boys having done some new and difficult operation, and many were then doing, for antiseptic surgery was yet in its infancy, and great things were happening daily.

He took an active part in the formation of the Ontario Medical Council, and was its treasurer from the time of its organization. He was at the inaugural meeting of the Canadian Medical Association in 1867. From 1850 to 1880 he was a surgeon to

DR. WM. THOMAS AIKINS.

the Toronto General Hospital, when for some unaccountable reason, known only to the powers that be, he was elected to the "consulting staff." For many years he was surgeon to the Central Prison.

He devised and used the hoop-iron splint for fractures of the humerus (6). He invented a most excellent fracture bed; he devised the idea of using rubber tubing for applying the continuous cold water coil, many years before Leiter ever described

it; in amputations of the breast and in other operations necessitating the loss of a large quantity of blood he used the tourniquets on the extremities as "blood-savers." These were applied in such a way that a large amount of blood was stored in the limbs. Some of the advantages claimed were that the patient required less anesthetic, and then when the operation was concluded, and the patient suffering from shock, first one limb was freed and then another, until all the blood was again in circulation. The patients recovered more quickly from their anesthetic, and there certainly seemed to be less shock. He never wearied of advocating "elevation" in the treatment of hemorrhage, and of inflammation, and was an ardent advocate of a plentiful supply of fresh air in the treatment of all cases. He performed the osteoplastic amputation at the knee-joint, some years before Gritty in 1858 described it, and was the first man in Canada to adopt Lister's views and practise antiseptic surgery. During my time as a student he abandoned the carbolic spray as superfluous. In the carrying out of antiseptic surgery, as you may imagine, he met with much opposition and even with dishonest and underhand treatment, in so far that one man who shall be nameless—and may he rest in a nameless grave—would go to his cases after their removal to the ward and infect the wounds with pus taken from other cases. Unfortunately Aikins never contributed to the journals, otherwise his name would pass down to posterity as one of the big men of the time. I would linger longer only I fear that I have wearied you already.

> "Yon rising moon that looks for us again—
> How oft hereafter will she wax and wane;
> How oft hereafter, rising look for us
> Through this same garden—but for *one* in vain."

James Ross, the father of Dr. J. F. W. Ross, entered the Toronto School of Medicine in 1848, and obtained his license to practise in 1851. Subsequently he graduated from Jefferson Medical College.

During the Civil War in the United States he was appointed surgeon to a corps in the Northern Army, and was present at the battle of Antietam. In 1867, during the Fenian Raid, he was Surgeon to the Toronto Naval Brigade.

For several years he was a member of the Medical Board, from 1875 to 1880 of the Medical Council, and for four years he was a member of the Toronto School Board. He died in 1892, at the age of sixty years.

He was a demonstrator of anatomy in Rolph's School. His practice was largely obstetrical, and during his lifetime he attended six thousand, seven hundred and seventy-seven cases of midwifery in private practice. An accurate record of these was kept, and they have since been analyzed and published (7) by his

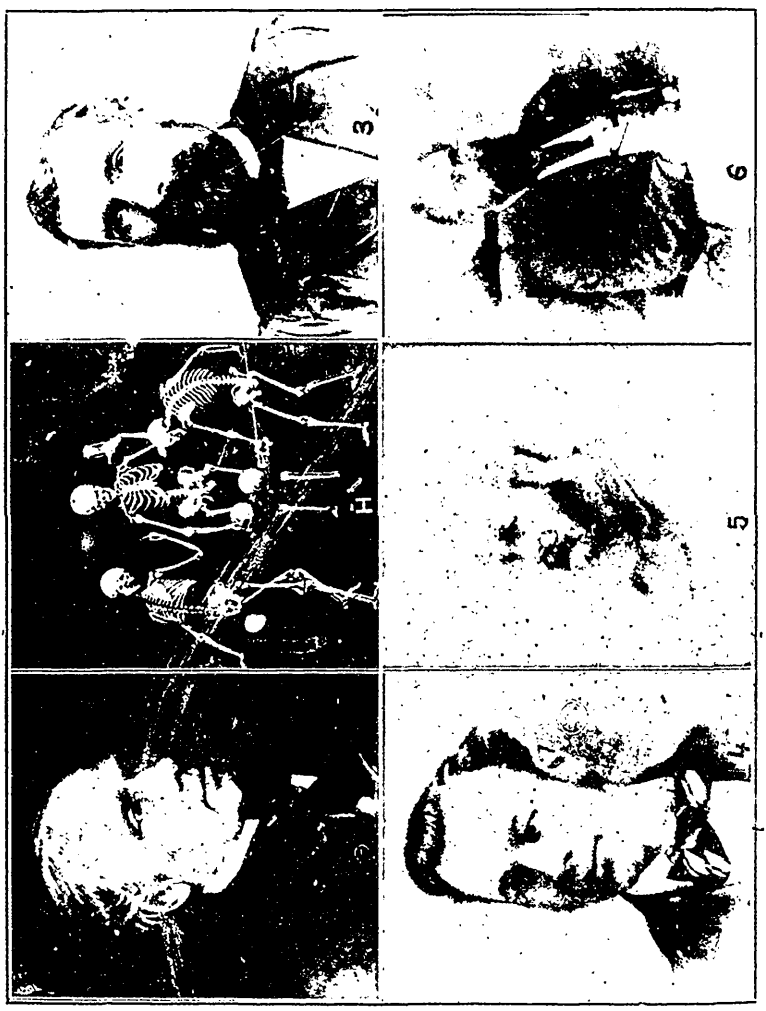
DR. LACHLIN McFARLANE.

son. He performed many of the major operations such as amputations, lithotomy, paracentesis thoracis for empyema, and had considerable experience in the treatment of fractures and of gunshot wounds.

He was made President of the Canadian Medical Association at Banff in 1889. During his thirty years' practice in Toronto he was intimately associated with Wright, Aikins and Thorburn, while in his younger days he came in contact with Widmer, Hodder, and Small.

Lachlin McFarlane left his father's house at the age of thirteen, and began work as a clerk in a store in the Township of Caledon, at the same time preparing himself for teaching. At the age of eighteen he took charge of the school at Caledon. During this time he studied for matriculation and finally entered as a student in the Toronto School of Medicine, graduating from the University of Toronto in 1867, and was one of the medallists in his year. He began practice in Toronto, and after meeting with the usual ups and downs of a city practice, about which some of us know a good deal from sorrowful experience, he became one of the busiest men in town. In 1869 he was appointed a demonstrator of anatomy in the old Toronto School of Medicine. In 1885 I well remember him as senior demonstrator, and I remember, too, how we "freshies" would quake when "Lockie" would start a "grind" with, "What have we here?" On one occasion we secured the services of an organ grinder to perform in the dissecting room, and I shall never forget the amused expression on his face, combined with a forced sternness, while he saw that discipline was properly carried out—as well as the organ-grinder and his "hurdy-gurdy." In 1881 he was made visiting surgeon to the General Hospital, and at the reorganization of the Medical Faculty of the University of Toronto in 1887 he was appointed Associate Professor of Clinical Surgery, which post he held until his untimely death from blood-poisoning on February 29th, 1896. He was infected from a needle-prick while amputating some gangrenous toes of a charity patient. As I remember him, he was a short, stout, thick-set man with a genial presence. Socially he was full of "fun" and made many warm friends, while by his patients he was held in affectionate esteem. His funeral was one of the largest ever seen in Toronto—rich and poor alike vied with each other in their efforts to tender to his memory their last respects.

John Fulton was born in Elgin County, and came to Toronto to study medicine in the Rolph School, from which he graduated with high honors in the University of Toronto and Victoria College in 1863. After spending some time in post-graduate work, in England, he returned to Toronto. He then became connected with the Rolph School as Professor of Physiology, and had the



Dr. Wm. Rawlins Braumont.
Dr. Richard Zimmerman.

Norman Bethune's Skeletons at Play
Dr. James Ross.

Dr. John Fulton.
Dr. John B. Kennedy.

same chair in Trinity Medical College till 1880, when he was appointed Professor of Surgery, which post he held until the date of his death from pneumonia in May, 1887. He was also on the staff of the General Hospital, where he will be remembered by many old students as a most excellent clinical teacher. My recollections of him are that he was a conservative surgeon, and never operated until he was convinced that it was the right thing to do, which is a lesson that some latter-day surgeons might well profit by.

He became connected with the *Canada Lancet* in 1868, and from that time on he was editor and proprietor, conducting the

DR. FREDERICK A. STRANGE.

journal with tact, vigor and ability. At various times he held positions of honor, such as member of the Senate of the University of Toronto, of the Ontario Medical Council, and various positions in the Canadian and Ontario Medical Associations.

John B. Kennedy was born at Bowmanville, or Newcastle, on the 26th of April, 1842, and died in Chicago, December 26th, 1891. It was at Upper Canada he received his early education, and he subsequently obtained his B.A. at Trinity College. After entering medicine, he became clinical assistant to Dr. Joseph Workman, at the Asylum for the Insane, in 1863, and remained there until his graduation in 1867. Soon after this he began

practice in Toronto, and was a member of the staff on the old Toronto School of Medicine. Subsequently he became a lecturer in Trinity Medical College. He was surgeon to the Toronto, Grey and Bruce, and the Grand Trunk railways, and to the Royal Engineers, and was on the staff of the General Hospital.

Kennedy at one time did an enormous amount of surgery. At this time he was a brilliant and fearless operator, popular with the students, loved by his patients, and respected by his friends.

Frederick W. Strange came to Canada from England in 1869, and began practice in Aurora, where for seven years he enjoyed a very lucrative practice. He removed to Toronto in 1876, and soon had a large practice. He represented North York from 1878 to 1882 in the Dominion Parliament. At one time he was Captain of the 12th York Rangers, and afterwards of the Queen's Own, and for many years before his death was surgeon to "C" Company, in which capacity he served during the North-West Rebellion of 1885.

He was for a number of years surgeon to the General Hospital and did a large general practice. We all remember Strange as a man of prepossessing appearance and a fine physique.

Upon looking back on the old days one cannot but regret that a man of such evident ability did practically nothing for the advancement of surgery in this country. He died suddenly, June 5th, 1897, and was buried with military honors, regretted by many of his old patients and friends.

Richard Zimmerman, M.D., M.R.C.S., was born at Clifton in 1851. "Dick," as he was familiarly called by his associates, entered the Toronto School of Medicine in 1868, and took the annual examinations in the University of Toronto, at each of which his name headed the lists in every subject, and at the end of his course he was awarded the University and the Starr gold medals. He went to England, and was soon after appointed resident at St. Thomas's Hospital. Returning to Toronto in 1874, he commenced practice with very bright prospects. He was made Demonstrator of Normal and Pathological Histology in the old Toronto School, and Pathologist to the Toronto General Hospital. He was a surgeon of no mean repute, and a brilliant career was prophesied for him, but it was not to be, and he was cut off in the very prime of life in February, 1888. Prof. Osler, of Baltimore, in writing to Toronto after his death, speaks of him thus: "So poor old Dick is dead—peace to his ashes! He was a good, kind friend, one of my earliest; for it is close upon twenty years since we entered the Toronto School of Medicine together."

To Dr. Wm. Canniff's "Medical Profession in Canada," from which I have quoted freely, Dr. H. Scadding's "Toronto of Old," to old files of the *Canadian Journal of Science*, the *Canada Lancet*, *Canadian Practitioner*, CANADIAN JOURNAL OF MEDICINE AND

SURGERY, the *Canadian Medical Review*, to the friends and relatives of some of the men of the past, to Dr. Uzziel Ogden, and especially to our beloved friend, Dr. J. H. Richardson, of whom may it be many, many years yet ere the chronicler has an opportunity of writing his life, I am deeply indebted for assistance in preparing this somewhat lengthy account of the surgeons of the past in Toronto. Of Dr. Richardson I could say so many complimentary things that I know he would blush to hear them. He is an excellent anatomist, a skilled surgeon, loved by his old students, and respected by his friends as he travels toward the goal, reaping the rich rewards of a well-spent life.

In the study of the lives of these men I have been reminded of the farewell greeting of the great London consultant to William MacLure:

"Give's another shake of your hand, MacLure; I am proud to have met you; you are an honor to our profession."

REFERENCES.—1. *Lancet*, March 17, 1866. 2. *Ibid.* 1854. 3. *Ibid.* 1857. 4. *Ibid.* 1862. 5. *Practitioner*, July, 1873. 6. Peters, *British Medical Journal*, June 5, 1897. 7. *Canadian Practitioner.*

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EPIDEMIC CEREBRO-SPINAL MENINGITIS—THE HISTORY OF AN OUTBREAK.*

BY J. McKENTY, M.D., GRETNA, MAN.

DURING the winter and spring of 1893, cerebro-spinal meningitis prevailed in epidemic form within an area in North Dakota, extending about fifty miles from east to west, and fifteen to twenty miles from north to south. Inquiry from the practitioners within this territory elicited the following approximately correct information. About seventy persons were seriously ill, and almost as many others suffered from mild manifestations of the disease, such as occipital headache, stiffness of the neck and slight feverishness for a day or two. Twenty-five cases ended fatally, a mortality of about 35 per cent.

In the practice of the writer and Dr. P. C. Donovan, of Neche, N.D., there occurred some thirty cases. I kept a brief record of twenty-two of these. The average age was seventeen years, the youngest fifteen months. and the oldest thirty-eight years. The duration of illness varied from twelve hours to fifteen weeks. Ten of them died, six within the first week. No *post-mortem* nor bacteriological examination was made in any case.

With your permission I shall read a few histories illustrative of the varied clinical aspects of the disease, and will take them in the order in which they occurred in the outbreak.

CASE 1. A robust young man, aged 20, had never been ill before; no history of ear trouble was obtainable. On January the 25th, 1893, at 4 p.m., he left the farm-house in perfect health to go to the barn a few rods distant to attend to the stock. In less than half-an-hour he returned to the house complaining of head-pain and dizziness which had come on suddenly, and had prevented him from continuing his work. He denied having received a fall or any injury while out. Owing to the vertigo he was soon forced to lie down. Mental confusion followed, and by 6 p.m. he was delirious. When first seen at 8 p.m. he was tossing about in bed unconscious, constantly uttering inarticulate sounds. For some time, probably one and one-half hours the family had been unable to understand him. A complaint of head-pain was the last utterance he was able to make. It was noted that left leg and arm were moved less than the right. Owing to the restlessness his temperature was not taken, but there was little evidence of fever. Pulse 78, regular, but rather weak. The pupils were contracted and even—no squint. There were some muscular tremor, and an occasional dorsal spasm, but no continued retraction of neck. Pin

* Read at meeting of the Canadian Medical Association, Winnipeg, August, 1901.

pricks caused flexion of limbs on both sides. The coma and paralysis rapidly increased, movements of the left side ceasing before those of the right, and death ensued at 4 a.m., just twelve hours after onset. No eruption noticed. In the absence of a *post-mortem*, the exact nature of the case may be regarded as uncertain, but the prevalence at the time of the disease in epidemic form lends support to the view that it belongs to that type of fulminant meningitis described as apoplectic or paralytic.

This was the most rapidly fatal case in the outbreak, and illustrates the truth of Netter's words. In speaking of this form, he says, "It strikes with brutal suddenness in the midst of apparent health, no prodromes having given warning of its approach."

CASE 2. Belongs to the same class as the foregoing, and occurred a week later.

Mrs. S., aged 25, confined four months previously, puerperium normal, and health good ever since. She arose on a Tuesday morning in February, 1893, in her usual health, and was engaged in bathing her child, when she became so suddenly prostrated from headache and vertigo, that she was obliged to leave the child undressed, and at once lie down. Vomiting, chills and fever followed, and she passed a sleepless night owing to head and back pain.

This is the account elicited from the husband at my first visit Wednesday afternoon. She was then quite delirious, with a temperature of 103, pulse 110 full and strong, in a semi-conscious state, from which she could be momentarily aroused, but could give no intelligent answer to questions.

Turning her over in bed apparently increased her suffering, and was accompanied by jerking of the legs and muscles of the back. Slight dulness and some bronchial rales were present over both lungs, no cough. The pupils were normal and conjunctivæ somewhat congested. No strabismus. She was catheterized, and the urine found free from albumen. There was no edema.

At the second visit, on Thursday at 2 p.m., a few scattered purpuric spots of pin head size on chest and abdomen were observed. She was quite comatose, and died at 4 p.m. Thursday, after fifty-four hours' illness. For some hours before death all muscles were relaxed, and the lungs filled with a profuse serous secretion. Her bowels had moved freely during Wednesday, in response to purgative given at first visit.

CASE 3. As this was the only case in the outbreak which ran an apyretic course, I am tempted to present it, although the record is very incomplete. The patient, a young girl of about twenty years of age, under the care of Dr. P. C. Donovan, died after six days' illness, during which the temperature was never above normal, and was usually subnormal. I saw her once on the third or fourth day of her illness, and although no notes were taken, I remember distinctly the pale countenance and anxious expression, the sighing, irregular respiration, the slow, soft, irregular intermittent pulse of fifty to the minute, the great prostration and the

complaint of sleeplessness. Turning her over in bed, for the purpose of examination, caused distressing vertigo.

CASE 4. A boy, aged 3, well developed, healthy child, previous health good, took sick during the latter part of May, 1893. The initial symptoms were vomiting, restlessness and fever; convulsions did not occur. The temperature during the first week ranged from 102 to 105 without morning remission. The bowels were constipated, the tongue coated, the pulse was rapid and variable in tension, some congestion of the eyes, marked intolerance of light and noise, retraction of the neck, general muscular soreness, the least movement causing suffering. An erythematous rash on the chest, and herpes on the lips appeared early in the first week. Sleep was secured only by the use of hypnotics. He was frequently delirious. At the end of the first week fever and nervous symptom abated, and for a few days convalescence seemed to be approaching. This remission was followed by an exacerbation lasting about another week. During the seven weeks' illness several such remissions and exacerbations occurred irregularly as to periodicity and duration. To the symptoms above enumerated were added during these exacerbations: deafness, occasional opisthotonos, slight ptosis, and at times patches of congestion in the lungs. These latter from day to day varied in position. During the fifth and sixth weeks an adynamic state with sordes on the teeth, coated tongue, abdominal distension, offensive diarrhea, a fever varying from normal to 102 with evening rise, and feeble, often irregular pulse, were the chief features. He became much emaciated. Convalescence was slow and imperfect. An awkward gait and tendency to stumbling, greater than might be attributed to muscular weakness, persisted for more than a year. The deafness was wholly recovered from in a few months.

CASE 5. The next case is of interest owing to the long duration of the illness, which began on March 15th, 1893, and ended fatally on July 3rd, after fifteen weeks' illness. It accords closely to the descriptions given by text-book writers of the chronic remittent form of meningitis.

The patient was an unmarried female, aged 25, tall and spare, of tuberculous family history. She had never been seriously ill before. The initial symptoms were constipation, head and backache, chilliness and high fever. Light and noise increased her suffering very much. Retraction of the neck and muscular tremor were less conspicuous symptoms than is usual.

During the many remissions which occurred the prospect of recovery often seemed bright. Like Case 4, inflammatory patches occurred in the lungs and herpetic eruptions on the lips and face.

The clinical picture during the later weeks was that of the typhoid state—abdominal distension, offensive diarrhea, profuse sweats and a remarkably variable temperature and pulse. The slightest disturbance, either physical or mental, caused a sudden

rise often of 3 or 4 degs. F. of the former, and an acceleration of 20 or 30 beats of the latter.

Owing to the general derangement of digestion, proper nourishment was impossible. The rectum refused to retain anemata, and nourishment taken by the mouth was rapidly passed through the alimentary canal undigested. The emaciation became extreme and bed-sores constantly threatening.

The mind remained clear, except for the brief periods of delirium during the first week and the acme of an exacerbation.

Death, which was due to exhaustion from colliquative diarrhea, was preceded for some days by paralysis of the sphincters.

Dr. C. B. Harris, of Pembina, North Dakota, has kindly supplied the following history of an interesting case which occurred in his practice, and which I saw with him on the third day of illness:

CASE 6. "The patient was a male, aged 18½. Had up to the 11th of March, 1893, been a strong and healthy boy. On this day he became sick with the following symptoms, viz: Intense headache, reddened face and eyes, chills, vomiting, loss of appetite, and a desire to be left alone. When aroused he seemed frightened and wild. On the 12th, at 4 p.m., I was called to see him and found him very ill, with high fever, rapid pulse and acute delusional delirium. The delirium was so severe as to require the efforts at times of from two to four persons to restrain him from running away. Sleep was impossible to obtain except through heavy hypodermics of morphia. At irregular times for the first three days he would speak in a some. at sensible manner to members of his family, then suddenly break away in his delusional delirium. IN his delirium he would talk and rave at his attendant and the doctor.

"Constipation was quite complete Medicine was out of the question, as every attempt to give it caused a struggle. Hypodermics and injections were used. This delirium continued until forty-eight hours before his death. It then became more passive. A paralysis of right arm began forty-eight hours and of right leg eight hours before death. He was comatose several hours before the end, which came on March 16th, after an illness of six days.

"There was slight retraction of head and tenderness along the spine. Muscular contractions were observed and to such an extent that I sometimes felt that a general convulsion was threatening. Such did not occur."

The foregoing cases occurred during the winter and spring of 1893. After the spring of 1893, in the larger portion of the territory invaded, there were no more cases; but at Neche, N. D., and vicinity, the field in which the writer and Dr. P. C. Donovan practiced, the disease lingered for two years longer.

During the summer of 1893 no severe cases originated, but in the following winter there were several, some of them fatal. A similar subsidence during the summer of 1894 and recrudescence

with the advent of the following winter also occurred. The last undoubted case of which I have record occurred in June, 1895.

This tendency of the disease to recur in places previously infected is referred to by all authors consulted.

In the same house in which Case 4 was sick in June, 1893, his aunt and his mother took sick in the following October and November respectively. The latter had a severe attack, which kept her in bed two months and left her with severe periodical headaches for three years following. The former was a visitor and had been living in the house three months before the onset. (Netter says the period of incubation is probably from three to eleven days. The other writers consulted either do not refer to the point or state that it is not determined.) Some features of her case are of interest:

CASE 7. Miss F., aged 21, of good physique and family history, on October 18th, 1893, got some powders for relief of headache, which she said had troubled her night and day for nearly two weeks.

November 2nd she was found in bed, temperature 104, pulse 110, suffering intensely from pain in head, neck and limbs. The powders had given temporary relief, but for several nights she had slept very little. Bowels had not moved for two days. Hyperesthesia of the skin, retraction of the neck, and marked tenderness on pressure or percussion over the lower cervical vertebræ were noted.

November 8th, all symptoms much improved, and for a few days was fairly well. A relapse followed after sitting for an hour in a chair on the 12th.

Seven weeks later convalescence was finally established. Several remissions and exacerbations characterized the course during these seven weeks, each exacerbation adding some symptom to the already numerous assortment, and thus giving occasion for suspecting hysteria—a suspicion not supported by anything in her history since recovery. The most remarkable of these symptoms was a harassing, dry cough, with an inspiratory whoop resembling whooping-cough. It began quite suddenly on December 1st, and was so constant that without the liberal use of morphia, subcutaneously, she could neither sleep nor eat. Hardly time to answer questions was left her. It as suddenly ceased and was replaced by vomiting for some days, then the vomiting ceased and the cough returned. This alternation occurred several times, the cough monopolizing most of the time. The vomiting occurred without reference to the condition of the stomach; in fact, digestion remained good throughout the whole course of her illness, and there was but slight loss of flesh. The lungs were never involved. Vertigo and herpes labialis were troublesome symptoms. For a few days in March the cough returned, and again in April. There were no sequelæ.

A year later, in November, 1894, with the onset of the second

recrudescence, the following example of the grave form of the disease occurred:

CASE 8. A robust laborer, of good habits, went to bed Wednesday night in his usual health; awoke during the night from headache, and remained awake and restless till morning. During the next day, Thursday, he remained in bed, and on account of the light aggravating his headache, he had his room darkened. Thursday night he was restless and delirious. This is the story told by his wife on my first visit Friday morning. No history of traumatism or otitis. He was tossing about in bed, at times grasping his head with both hands, partly unconscious, but could be aroused, and then replied to questions in a confused manner. He seemed afraid, and resisted efforts to give him water or medicine. Temperature 103, pulse 60 soft, full, irregular. Bowels had not moved for two days. Lungs normal, no cough, urine free from albumen or sugar, pupils contracted and even, conjunctivæ congested, no edema, no eruption. Pressure or strong percussion over lower cervical vertebræ caused him to flinch. Muscular tremor and jerky action of limbs in his movements were noted. Calomel was placed on his tongue, and ice bags to his head and spine. He could not be given medicine. Bowels moved freely Friday evening. The delirium had become low and muttering, and during the night subsided into coma, which continued till death at 11 a.m. Saturday. Saturday morning a faint purpuric eruption was observed over thorax and abdomen.

A recital of any more such imperfect case histories would be unprofitable and wearing to your patience.

The following points, however, are of sufficient interest to warrant a brief reference:

(1) In only one case was the petechial eruption so conspicuous a symptom as to suggest the old name, "spotted fever," and contrary to the teaching of text-books, it was a mild case.

(2) A symptom to which the same authorities make slight reference, viz., aggravation of the rachialgia on pressure, especially over the lower cervical vertebræ was almost constant in these cases.

(3) In the beginning of the epidemic, *i.e.*, in the winter of 1893, the majority of the victims were adults; during the recurrences of 1894 and 1895, children were more frequently attacked.

(4) In the writer's experience no evidence of contagion was discovered in any case, excepting this: while nursing her sister (Case 7), the mother of Case 4 took the disease; but, as before intimated, the house was probably infected from the time of her son's illness, six months previously.

In the first case, in the epidemic which occurred early in January, 1893, in the practice of Dr. E. I. Donovan, of Langdon, N.D., he was unable to trace any source of contagion. Very severe stormy weather prevailed at the time.

From Langdon the infection spread steadily in one direction eastward across a sparsely settled country, reaching Pembina, fifty

miles from its starting point, about a month later. No trace of it east of Pembina was obtainable.

The method of propagation of the disease has not been determined. Netter says: "I believe that the contagiousness of cerebrospinal meningitis is indisputable and that this is the most essential etiological factor."

Osler says: "The disease seems not to be directly contagious. It is probably not transmitted by clothing or excretions."

Osler's view, I believe, is that of the majority of writers.

(5) Pneumonia was not often associated, and when it did occur was never so extensive as to add to the gravity of the case.

It was not unusually prevalent during the outbreak of meningitis, but in the two years following (1895 and 1896) many children suffered from what appeared like a combination of the two diseases. In these cases it was impossible to say which was the primary disease.

(6) Joint complications did not occur in any case.

(7) In addition to the sequelæ already mentioned, permanent mental impairment followed in one case. In this case the onset and course during the first week was quite similar to Dr. Harris' case. The patient, an adult male, was confined to the house for three months, delusional delirium occurring at irregular periods during this time.

Three years later his friends reported that he was still mentally feeble and apathetic, and lacked his former energy.

REFERENCES.—Osler: "Practice of Medicine," 3rd edition. Netter: "Twentieth Century Practice." Ormerod: "Allbutt's System of Medicine." Stille: "Pepper's System of Medicine." Whittaker: "Buck's Reference Handbook of Medical Sciences." Bartholow: "Practice of Medicine." Holt: "Infancy and Childhood."

MILD SMALL-POX.*

BY G. A. KENNEDY, M.D., MACLEOD, N.W.T.

I WISH to preface this short paper by explaining that when I sent its title to the Secretary I intimated that my intention of bringing the subject up was conditional on no one else doing so, but as Dr. Starr in replying said that while Dr. Bracken was down for a paper he considered mine would not clash with it any way, I concluded to present a few of the aspects of mild small-pox as they have appeared to me during the recent epidemic in the North-West Territories.

You must, therefore, be good enough not to consider my paper as an exhaustive treatise on the subject, but simply a contribution to the discussion by one with no special knowledge and with limited experience.

The outbreak in the Territories was widespread, it having existed in the Edmonton country, and later in the Maple Creek District, for some time before its true nature was recognized. Through the kindness of Dr. James Patterson, Quarantine Officer for the Dominion Government, I am enabled to quote the following statistics. Dr. Patterson says:

"I am confident from what I have seen myself, and from reports on file here, there have been 1,500 cases. It has existed most extensively in the district comprised within one hundred miles north, south, east and west of Edmonton. Fully 1,000 cases have occurred there. It was also prevalent at Onion Lake, Frog Lake, St. Paul de Metis, Lac la Biche, near Prince Albert, Touchwood, Manor, Fort Pelly, Maple Creek, Calgary, Cochrane, Macleod, Pincher Creek, Lethbridge, Magrath, Stirling, Cardston and Athabasca Landing. The greatest number of cases have occurred amongst the French half-breeds, unvaccinated. Treaty Indians, on reserves, have not suffered to any extent, annual vaccination being the rule. Not one case has been seen or heard of amongst Galicians, Doukhobors, or Roumanians, due to compulsory vaccination in youth, and re-vaccination on their recent passage across the Atlantic and at Halifax. A number of cases have occurred at the various points amongst Anglo-Saxons who were unvaccinated, vaccinated many years ago, or recently vaccinated with vaccine which has proven itself to be practically inert. I do not know of a single case of small-pox where vaccination was what might be called recent and successful with Slee's or Mulford's vaccine.

"Fifty per cent. of all the cases were of an extremely mild character, and thus arose the doubt in some quarters as to what the disease really was. Forty per cent. were cases of typical varioloid.

* Read at meeting of the Canadian Medical Association, Winnipeg, August, 1901.

Ten per cent. were severe, almost confluent. I saw two cases in adults, confluent, both fatal. The mortality has been slight. I know of thirteen deaths. The disease prevailed fully as much amongst adults as amongst children."

I had personally to do with some ten cases, besides seeing a couple of others in consultation and a family of seven during convalescence. The cases ranged from very mild to fairly severe, and without going into the histories of these cases in detail, and with a thorough appreciation of the fact that the number is very meagre on which to base definite conclusions, I wish to state now that the dominant impression left on my mind was and is that the disease, while being undoubtedly small-pox, was a distinct type—not variola modified by vaccination—but a variety essentially different from what I had previously seen and what the text-books describe. This is undoubtedly a debatable point, but I advance it, possibly on insufficient grounds and certainly with no great experience, as being my present conviction. What reasons have I for holding this opinion? You all know the clinical pictures of an ordinary case of discrete and confluent small-pox, and in order to enable you to grasp the difference between it and the type I am endeavoring to establish I shall briefly describe my first case. It was in a woman aged thirty-six, unvaccinated. I saw her on the second day of her illness and found her suffering from the following symptoms,—headache, pains in chest, body and back, chills, sickness at stomach, fever. Temperature ranging from 101.5 to 103, and pulse 100 to 110. The symptoms abated somewhat under treatment, and two days afterwards a papular rash appeared on forehead, face, wrists, chest and back. The next day, the fifth day of the disease, some of the papulæ became vesicular and the fever defervesced, temperature dropping to normal and all the other symptoms disappearing. Owing to absence I did not see her again for two days, or the seventh of the disease, when I found the rash fully developed and the vesicles umbilicated. The vesicles increased in size for next three days, and on the tenth day most of those on the face and wrists had become pustular. I might add that the eruption was far from being uniform, papulæ, vesicles and pustules being found alongside each other. It was fairly thick on the face and wrists, on the neck and shoulders, and was found on the palms and soles, as well as scattered over the body and limbs. There was absolutely no secondary fever and by the sixteenth day most of the larger pustules had dried into brown scabs and fallen off, leaving no pit or ulceration, but simply a purplish, slightly-raised discoloration of the skin. The smaller spots seemed to become reabsorbed, leaving a similar but smaller mark, and in two days more, or in eighteen days from the first prodromal symptoms, the skin could be called entirely clear. I saw this patient a few days ago and the discolored parts are still plainly discernible, but are gradually disappearing.

Now I wish to point out that there are few important differ-

ences up to the time of maturation. The period of incubation I found in this and other cases to be about the same, the prodromal symptoms are the same, excepting that in my experience the initial rashes were absent, the same four days of pyrexia with temperature ranging from 101 to 105, the general *malaise*, the severe frontal headache, which I came to look on as almost pathognomonic, and backache frequently not less severe. Then there is the sudden defervescence, with complete subsidence of the other symptoms. The rash, too, does not differ in any very important respect, excepting its non-uniformity up to the time of pustulation, and here the disease departs from the clinical course of the old established small-pox and strikes out a line of its own. In the first place there is no secondary fever, or practically none. I believe that the experience of others agrees with mine in this respect. In the second place the pustules do not break and exude pus with its characteristic stench, which makes the disease so loathsome and the ulceration going on under the scabs which leaves so disfiguring a legacy. Instead, they simply get brown, commence to dry and shrink up, gradually separate from the skin around the edges and fall off like over-ripe fruit. The ultimate results are consequently vastly different, for instead of the unsightly scars which are left by ulceration, we have only discolored, in some cases slightly raised, patches, which sooner or later disappear altogether. As a further consequence, the disease is over and the skin clear in a much shorter time than in variola.

So much for the clinical course.

Now let us consider for one moment the mortality statistics. In our epidemic we had 1,500 cases with thirteen deaths, or of a mortality of about four-fifths of 1 per cent. In Minnesota during the past two and a half years there were 7,211 cases reported, with a mortality of two-thirds of 1 per cent. and in the whole of the United States (I am assuming that the disease prevalent there is similar to that with which we have had to do); in 11,964 cases reported between December 28th, 1900, and March 29th, 1901, or three months, there were only 157 deaths, or a percentage of 1.31.

Here are over 20,000 cases with a mortality of, roughly speaking, 1 per cent. Just let these figures sink into your minds.

Is this the same disease which the text-books describe and in which the mortality is from 25 to 30 per cent.? Is it the same disease as the small-pox which in 1898 and 1899 caused 107 deaths in 439 cases in the United States Army, or 29 per cent., or, to come to a local matter, is it the same disease which only a year ago, in Winnipeg here, caused six deaths in 37 cases?

Remember that in varioloid proper the mortality is variously estimated at from 3 to 5 per cent. Remember, too, that in our epidemic in the North-West by far the greatest number of cases occurred among the French half-breeds, who were largely unvaccinated, who hive together in winter almost as badly as the poorer

classes in the tenement-house districts in large cities and whose sanitary surroundings leave everything to be desired.

I ask again are not these facts significant, or are they to be explained by saying that this is small-pox modified by vaccination?

Allow me to note another point. Small-pox, like most of the other acute infectious diseases, is more fatal to children than to adults, and in the Montreal epidemic of 1885, in a total of 3,164 deaths, 86 per cent. were children under ten years old. My experience with this form of small-pox, with which we have had to do, is that it is no more severe and no more fatal in children than in adults, and indeed if there be any difference, children take it more lightly and get over it more easily. I believe that my experience in this respect is borne out by others who have had a much larger number of cases.

There is still another notable difference, which follows of course on the difference in the clinical courses of the two forms. The patient convalesces much more quickly, and there is no permanent disfigurement. Instead of the unsightly scars which to youth and beauty particularly has made small-pox so dreaded a nightmare, there are only the discolored patches which the lapse of a few months causes to fade away, leaving the skin as if it had never been touched by the hand of disease.

To recapitulate, we have the following differences between true small-pox and the variety which we have been considering: (1) A radical difference in the clinical courses; (2) an immense difference in the mortality; (3) the fact that the disease is as mild in children as in adults, and (4) the absence of any permanent disfigurement.

A disease which is not dangerous to life, which involves only three or four days' actual sickness and which is not destructive of beauty, is I contend so essentially different from variola vera as to be entitled to rank as a distinct variety.

It is open to argument of course that these variations have been brought about by vaccination and that this is nothing more or less than varioloid. I do not hesitate to say that I find this impossible to believe. Varioloid is true small-pox modified by vaccination, and universal experience is that it can and does give rise to the severe and confluent forms in those who have not been protected by vaccination. If this is varioloid it is inconceivable to me why among the very large number in the Territories who were unvaccinated and who were attacked there were so few really confluent cases and so few deaths.

It is also said now that this is no new thing, that epidemics of mild small-pox have prevailed before, and that in raising any question about the nature of this disease we are only threshing out old straw that has been thoroughly winnowed and stored over a hundred years. I am quite prepared to admit that there have been epidemics of mild small-pox before, but that simple fact, while disposing of the argument that we are becoming racially immune

owing to the results of generations of vaccination, does not explain why there should be so radical a difference in the course and results of two epidemics occurring only a few years apart, one leaving a trail of death and disfigurement, and the other practically harmless.

I prefer to believe, as I have indicated before, that this is a distinctive variety, that the disease breeds true, and that while a case of varioloid can give rise to a severe case of confluent in the unvaccinated, a case of what, for want of a better word, I have been calling mild small-pox, will produce only mild small-pox—possibly severe cases of it—but differing essentially from the old established form.

The lessons to be derived from our epidemics are the following:

1st. Care in diagnosis. The differential diagnosis between small-pox and chicken-pox has been so often and so widely published of late that there is now very little excuse for a man making a mistake.

2nd. The necessity of students having an opportunity, when one is available, of seeing cases of small-pox. There is no more reason why they should not see small-pox than measles or scarlet fever (under proper surveillance), and yet the fact remains that not one student in a hundred has ever seen a case of small-pox when he graduates.

3rd. Greater care in vaccination. My observation has taught me that not one quarter enough attention is paid to this simple operation, and the results are alike discouraging to the public and the practitioner. Theoretically and logically it seems to me that the hypodermic syringe is the best method, although I am bound to confess that in the few cases in which I have tried it, it has not been entirely satisfactory, but I propose to continue the trial, and I venture to hazard the prophecy that it will be the method of the future.

A word as to the differential diagnosis between small-pox and chicken-pox. It is easy when you find spots in the palms of the hands, or on the soles of the feet, for of course when they are found in these situations it is proof that the disease is small-pox. In this connection I notice that Dr. Herman Spalding, of Chicago, says that a spot on the ear is pathognomonic, as it is never found in that organ in chicken-pox. This is interesting if well founded, but why it should be so passes comprehension. The average practitioner is only too glad to take the dictum of a specialist, and this discussion will not have been in vain if it clears up this single little point. The differential diagnosis has been so often published of late that I shall not repeat it here, but such very important interests are involved that it is the duty of every man to thoroughly acquaint himself with every distinguishing characteristic. We cannot afford to repeat the many mistakes that have been already made, for I fear it is largely the fault of members of our own profession that the disease has spread as widely

as it has. Our North-West Government did a very wise and sensible thing in placing chicken-pox in the list of infectious diseases, and imposing a quarantine, and now there is only one course open to a man, isolation and notification. Under these circumstances small-pox should not spread.

The following is such a remarkable instance of the value of vaccination that it is worthy of record:

There is a colony of Galicians east of Edmonton, numbering nearly ten thousand souls. On the west and to the south-west of them is a colony of French half-breeds. Amongst the latter there were over five hundred cases of all grades of severity. On the east of them is another colony of half-breeds, where about one hundred cases existed. The breeds were unvaccinated, the Galicians thoroughly vaccinated. The breeds pass constantly, as these people do, from one colony to the other, backwards and forwards through the Galician colony, yet not one case has occurred up to date amongst the Galicians.

This I think is clear proof of the value of vaccination, and also that the disease is small-pox—the only disease against which these latter people are protected.

ON THE NECESSITY OF BETTER RECOGNITION AND ISOLATION OF TRACHOMATOUS PATIENTS IN CANADA.*

BY W. GORDON M. BYERS, M.D.,
Assistant Oculist and Aurist, Royal Victoria Hospital, Montreal.

THE points which I wish to raise before the Association to-day can be embodied in comparatively few words, though the matter with which they have to deal is one of paramount importance.

Two summers ago there came to our clinic at the Royal Victoria Hospital, a young girl from Glengarry County, Ontario, affected with the most intense condition of granular lids I have ever seen in Canada. The conjunctivæ were covered with heaped masses of succulent granulations, and the corneæ showed a condition of highly vascularized pannus. The girl had been unable to open her eyes properly for months past, and her vision was reduced to the counting of fingers. On questioning the patient it was clear that in spite of the highly typical character of the trouble, the serious nature of her disease had been quite unrecognized, for without adopting any preventive measures whatever she had been allowed to mix freely with the other members of the community.

A year later, while away on my holidays, I was asked to see a young boy in the County of Leeds, Ontario, for a chronic disease of the eyes. The appearance was at once suggestive, and on everting the lids I found them covered with typical trachoma follicles. Here, too, in spite of the fact that the parents had put themselves to pains, they had been unable to ascertain the real nature of the condition of their boy's eyes, and at no time had they been advised to adopt even the most elementary precautions against the spread of the disease.

Since these patients came under my notice I have thought not a little of the trachoma problem as it touches our country, and I am persuaded through information and investigation that there is a fairly large number of unrecognized and untreated cases of granular ophthalmia scattered here and there throughout the Dominion. Thus, for instance, I have been informed by medical friends that the disease is comparatively common in certain districts of Manitoba, and even at our hospital the territory from which our trachomatous patients were drawn was extremely broad, our clinics having been visited by patients from the counties of Glengarry (two centres), Stormont, Dundas, Leeds (two centres), Renfrew, Lennox and Carleton in Ontario; and Brome

*Read by proxy at meeting of the Canadian Medical Association, Winnipeg, August, 1901.

(two centres), St. Hyacinthe, Missisquoi, Huntingdon and Ottawa in Quebec.

To those acquainted with granular ophthalmia, the years of distressing annoyance to be passed by those affected, and the debarment from ordinary work, let alone the higher pursuits and pleasures of life, it must be a matter of apprehension that cases such as I have spoken of should exist unrecognized and unisolated to act as centres of infection throughout the country.

There is probably no doubt that the pure, sunny character of our climate has heretofore acted as a barrier to the spread of this disease, and fortunately the condition is comparatively rare in Canada. Nor do I think there is any present indication of a rapid increase of the malady; I only wish to assert that we have with us numerous centres of infection, and that a small amount of pains now may save us much trouble in years to come.

Every practitioner ought to make himself familiar with the condition as far as possible, and be on the look-out for its occurrence. Diagnosed cases should be carefully warned to employ separate towels, soaps and basins, should be isolated as regards their sleeping arrangements, and in the case of children withdrawn from school. Doubtful cases, and patients requiring special treatment—and there is no doubt that if proper measures are adopted, especially in the early stages of the disease, a certain number of cases can be brought to a standstill—should be very properly referred to a competent specialist.

The general adoption of measures such as these would probably be sufficient to deal with the cases at present with us in Canada, and other means, such as the institution of trachoma schools, might safely be left to a more pressing occasion.

It still remains for me, however, to speak of one strong prophylactic measure. There is no doubt whatever that the number of our trachomatous patients is being yearly added to by immigrants to this country. Fifteen per cent. of the cases of granular ophthalmia at the Royal Victoria Hospital Out-Patient Clinic, during the past six years, was of foreign extraction, and among our patients with this condition were Russian and German Jews, and a resident each from England, Ireland, China, Italy and Syria. And I scarcely think that the above percentage properly represents the facts, as the people most likely to suffer from this trouble are settling largely in our Western districts. As an example of what I say, I may mention that I had it on good authority that the cases of sore eyes among the Doukhobors were probably trachomatous in nature.

A trachomatous patient is a highly undesirable, for the most part a useless, and a dangerous citizen, and I see no reason why these individuals—or others for that matter suffering from certain diseases different from that under discussion—should be ad-

mitted to our country where only strong, active people are needed, no matter how slow the tide of emigration may be.

Heretofore, government authorities generally have not classed trachoma among the infectious diseases, but there is no reason why Canada should follow this blind lead. Better that such patients should be warned not to start on their journey to this country, but once here I think it only fair to the general body of the citizens that they should be sent back to the place from which they came. Twenty months ago, and again last autumn, I advocated in lectures the adoption of this measure. On both occasions the matter was brought before the notice of federal officials, but as yet the Government has taken no steps in the matter.

If the quarantine authorities were unable to deal with the matter there are free hospitals at all the points of entry—Halifax, Montreal, Winnipeg, etc.—with competent specialists to whom doubtful cases might be referred. And under any circumstances, even should the Government not feel disposed to adopt such radical measures as I have indicated, trachomatous patients should be referred to the institutions mentioned for treatment and admonition regarding the infectious nature of their trouble.

I hope this short paper will elicit thought and discussion on the subject, but let it not be forgotten, if these remarks seem those of an alarmist, that the trachoma problem has had to be faced before this by at least one Government in Europe.

We beg to acknowledge with thanks the loan by Dr. Wm. Canniff of several of the half-tones appearing in connection with Dr. Starr's address published in this issue of the Journal.

The Medical Society of the State of New York held its semi-annual meeting on October 15th and 16th, 1901, in Hozack Hall, at the New York Academy of Medicine, New York City. The meeting was a banner one, both in point of attendance and quality of papers read.

Dr. P. H. Bryce, Deputy Registrar-General, has sent out notifications to the municipal registrars of the Province, notifying them that unless the monthly returns of deaths and births are sent in they will be prosecuted and fined. The recording of proper statistics has been rendered very difficult by the absolute indifference of many officials.

Mr. R. R. Bensley, B.A., M.B., who has been a lecturer in biology at the University of Toronto for the past few years, has accepted a very lucrative and responsible position in the University of Chicago. The University of Chicago is one of the best universities in the States, and is very heavily endowed, which makes it possible for them to pay the very highest salaries to their professors.

Selected Articles.

THE TREATMENT OF SOME CASES FREQUENTLY MET WITH IN MEDICAL PRACTICE.

BY C. W. CANAN, M.D., H.S., PH.D., ORKNEY SPRINGS, VA.

SEVERAL years ago, after having had some unpleasant experiences with iodoform, I determined to make a search among the newer iodine combinations for some preparation which would possess the advantages of iodoform without its drawbacks. Aside from the unpleasant odor of iodoform, which renders it well-nigh impossible to employ it in many cases, it is a dangerous drug which must be applied with caution, since poisonous results from its absorption have been quite frequently reported in later years. Professor Robert T. Morris has especially called attention to this occurrence, which often is not recognized, and the symptoms referred to other conditions.

The preparation which approximates most closely to iodoform in its effects, and seems to be entirely free from its objectionable features, is europhen, which is a chemical combination of di-iso-butyl-cresol with iodine. Europhen only acts when placed in contact with secreting surfaces which decompose it and liberate free iodine. It is slightly resinous, which makes it adhere well to wounds and mucous membranes. Owing to the lightness of the powder, it will cover four or five times as much surface as iodoform. As far as I am aware, no case of toxic effects has ever been reported from the use of europhen, and while it is a good stimulant it is practically non-irritating.

Instead of discussing in detail its many indications, I will report some of the most interesting clinical observations copied from notes made at the time.

CASE 1.—A.E.B., male, 45 years of age, distiller, had suffered for years from an ulcer located four inches above the ankle. This had been treated by various physicians with indifferent results. When the patient came under my care the ulcer was about as large as a silver half dollar, with deep indurated edges, the skin for some distance below being edematous and eczematous. I first applied a poultice to hasten the separation of the slough that was forming. When this was complete and a granulating surface ex-

posed, it was covered with europhen powder, rubbing it well in under the edges of the skin. A roller bandage was then applied from the toes to six inches above the ulcer in order to relieve the venous engorgement around it. The bandage was secured above and removed from the foot and region of the ulcer; the edges were then drawn together with adhesive slips which reduced it about one-half in size. It was again dusted with europhen, the bandage removed, and the affected parts covered with antiseptic gauze. The dressing was completed by applying an even roller bandage over all from the foot to the knee. The patient was directed to carefully regulate his diet and habits, to abstain from stimulants and to spend most of his time with the foot and limb elevated. The ulcer was dressed once a week with europhen, and the edges strapped as before. The eczema had disappeared at the second dressing, and in four weeks the patient was dismissed with the ulcer healed.

Since 1896 I have treated no less than ten patients with chronic leg ulcers after this method, and in every case a cure was the result.

Aside from simple ulcers I have derived good results from europhen as an application to chancroids, chancres, condylomata, ulcerating lupus, and syphilides, either in powder or ointments of ten to fifteen per cent. It is also an excellent antiseptic dressing for contused and lacerated wounds even after they have become infected. In the treatment of extensive burns I have successfully employed the following formula: Europhen, 3 parts; olive oil, seven parts; applied on sterilized gauze with absorbent cotton. It is one of the best remedies at our command to destroy the unpleasant odor of cancerous sores.

Case 2.—Annie B., female, 18 months old, was brought to me with the face and neck covered with eczema. There was a large weeping surface, drops of serum were oozing out everywhere, and crusts and scabs forming; the ears and eyes were swollen and the child was in agony. I at once muffled her hands and dusted her face and neck with europhen, and gave the mother directions to dust the parts freely whenever the serum oozed through. On the third day I saw the child and found it quiet; the face was almost one continuous scab. In a few places I found pus pent up under it. These points were poulticed and anointed until removed without pain, then washed with carbolized water, dried, and again dusted with europhen. At the end of the first week many of the scabs or crusts were loosening, leaving healthy skin beneath, and by the end of the second week the face was nearly normal, except dark-red spots where pus had formed, which disappeared in time.

Case 3.—I. M. applied to me for treatment for the following condition: Rheumatic trouble had gradually doubled him up until his head and shoulders were almost at right angles to his body.

During later years he had greatly increased in flesh, until large rolls of adipose tissue lay in contact across the epigastric region. The sulcuses between them had from friction and retained secretion become eczematous; during warm weather the irritation was almost unbearable, and the parts gave off a disgusting odor. These folds were separated and cleansed with carbolized warm water, after which the whole inflamed surface was dusted with europhen, and kept separated with pads of absorbent cotton. The patient was directed to dust well with the drug every second day, and apply fresh cotton. In a few weeks he reported the trouble cured, and has prevented its return each season by applications of europhen.

It is claimed by some that europhen will not cure eczema and psoriasis. According to my experience this is true in reference to the latter, but I have convinced myself that certain varieties of the former affection are benefited by its use, especially eczema with a profuse serous discharge. In the dry form an ointment consisting of europhen and aristol, of each four drachms, boracic acid, two drachms, and lanoline, four ounces, is of benefit. Herpes zoster and progenitalis, acne, sycosis and ivy-poisoning are frequently cured with europhen. I have arrested the spread of erysipelas by painting the affected parts with europhen dissolved in flexible collodion.

CASE 4.—Mrs. M. N. came to me complaining of backache and pains in the lower part of the abdomen, radiating down the inner side of the thighs; her limbs were so weak at times that they would with difficulty support her weight; there was palpitation of the heart with numbness of the arms and hands. There was also present a feeling of weight or heaviness in the lower part of the pelvis, and soreness when walking. On examination I found a large ulcer on the posterior part of the cervix, with erosion of the external os. The neck of the uterus and adjacent parts were swollen and congested, and the womb itself was very large, with tough tenacious mucus exuding through the internal os. The ulcer was a deep, ugly one about as large as a quarter. I at once douched out the vagina with bichloride solution, 1 to 1,000. Then through a speculum the ulcer and external os, which was everted, were mopped clean, and the whole covered with europhen by means of a powder-blower. She was given hollow suppositories filled with the same drug, and was directed to douche the vagina with a half-gallon of hot water from a fountain syringe before retiring, and then while lying on her back to insert one suppository well against the cervix. This was to be repeated every night, and she was to return to my office twice a week for treatment. This course of treatment was carried out as outlined above, with rapid improvement of both local and constitutional symptoms, and at the end of one month the ulcer had healed, the erosions and con-

gested condition of the os and cervix had disappeared, the pains, weight, and reflex nervous symptoms were gone, and the womb was fast returning to its normal size. A tonic now completed the cure.

In the treatment of vulvitis, vaginitis, leucorrhea, ulceration of the cervix, and endometritis europhen is a very important remedy. Combined with lanoline or vasoline or any other convenient base it makes an excellent application in case of a granular os. It should be employed through a speculum on pledgets of absorbent cotton packed thoroughly around the diseased surfaces. For metritis and endometritis five grains should be thoroughly suspended in one-quarter ounce of glycerine and three-quarters of an ounce of distilled water, and injected gently into the uterine cavity through a soft rubber catheter, to which has been attached a glass tube two or three inches long. I ground down the nozzle of the syringe, so that it would fit into this glass tube, and by this arrangement it is possible to note whether the europhen is well suspended; if not, remove the syringe, thoroughly shake it, and then finish the injection. The same instrument is useful in cases of cystitis, posterior urethritis, and prostatitis. As a vehicle, olive oil can be employed, or distilled water if care is taken to keep the drug well suspended in it. The quantity used at each injection will vary according to the indications. Some advise an amount not exceeding ten grains, while in very chronic cases, where the bladder walls are coated with tenacious mucus, I have used as much as twenty grains. The amount of oil or water should not be less than two ounces of the former nor less than six ounces of the latter. If the bladder is previously irrigated with warm water, smaller quantities of the europhen and the menstruum need be employed. In posterior urethritis and prostatitis, injections of europhen, one drachm to the ounce of fluid petrolatum, are highly recommended.

Case 5.—J. F., 22 years old, farmer, had "a gathering" in both ears when four years old. They discharged freely for some time, then ceased for a short period only to begin again. His parents had consulted but one physician, who directed them to syringe the ears daily for a while, and finally told them that the child would outgrow the trouble. The discharge kept up more or less through all these years, his hearing failing in proportion. The secretion was occasionally so offensive that it could be detected throughout his home, and so acrid that his ears would be sore. Syringing had been kept up from time to time, when discharge was profuse. On examination I found only a fringe of the tympanum around the canal, and the middle ear filled with pale, flabby granulations. The external ear and canal were eczematous and ready to bleed at the slightest touch. He could hear the tick of a watch two inches from the right ear, but it had to be pressed

against the left ear to enable him to hear at all. After mopping out all secretion I plugged the external auditory meatus to prevent outside pressure from the air; then the middle ear was inflated through the Eustachian tube, driving the pus outward. The ear was again mopped out and europhen blown well through the drum into the middle ear. This treatment was given once a week, and the patient was directed to wipe out the ears daily, and to fill the canal with the same powder. The discharge gradually grew less, the eczema healed, and in three months the case was pronounced practically cured. Two years have elapsed without any return of the discharge. The hearing improved very little because of structural changes.

Quite a number of cases of otitis media in children have been treated with europhen by me with excellent results. The dry powder is also of value in ozena, applied by insufflation or as a snuff. A mixture of europhen with glycerine, applied with a brush, is recommended in inflammations of the throat, such as tonsillitis and pharyngitis.

In conclusion, I would impress upon the profession the value of europhen combined with pure Norwegian cod-liver oil or pure olive oil in the treatment of tuberculosis. The following is the best combination: Europhen, 1-2 ounce; pure cod-liver oil, 1 pint; oil of sassafras, 10 minims. Shake thoroughly, and apply two drachms of the mixture to the inner sides of the thighs, axillary region and sides of the chest once daily. These places should be thoroughly washed with soap and water and then with diluted alcohol, after which the europhen mixture is thoroughly rubbed in, selecting a new site for each application. The value of cod-liver oil in tubercular affections is dependent largely upon the iodine which it contains. The percentage of iodine is very small, but when europhen is added this is materially increased, and to which is attributed probably the beneficial effect of this treatment. If in any case cod-liver oil cannot be used pure olive oil may be substituted. Under this plan of treatment the night-sweats are diminished, the appetite and nutrition increased, and the patient improved in every way.

THE twenty-seventh annual meeting of the Mississippi Valley Medical Association adjourned at Put-in-Bay, after a most successful session, on the morning of the 14th of September out of respect to the late President McKinley. The following officers were elected for the ensuing year: President, S. P. Collings, M.D., Hot Springs, Ark.; 1st Vice-President, J. C. Culbertson, M.D., Cincinnati, O.; 2nd Vice-President, Paul Paquin, M.D., Asheville, N.C.; Secretary, Henry Enos Tuley, M.D., Louisville, Ky.; Treasurer, Thos. Hunt Stucky, M.D., Louisville, Ky.; Chairman Committee of Arrangements, A. H. Cordier, M.D., Kansas City, Mo.

The Canadian Journal of Medicine and Surgery

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Doctors will confer a favor by sending news, reports and papers of interest from any section of the country. Individual experience and theories are also solicited. Contributors must kindly remember that all papers, reports, correspondence, etc., *must be* in our hands by the fifteenth of the month previous to publication.

Advertisements, to insure insertion in the issue of any month, should be sent not later than the tenth of the preceding month.

VOL. X. TORONTO, NOVEMBER, 1901. NO. 5.

Editorials.

DID DR. ADAMI FORESTALL KOCH'S LATEST DISCOVERY?

IN the correspondence pages of this number we publish a very interesting communication from Dr. Adami, Professor of Pathology in McGill University, Montreal. The tenor of the letter is to show that Dr. Koch, the great German pathologist, is unjust to other workers, and claims priority for discoveries to which he is not entitled in the field of experimental pathology.

We refer our readers to Dr. Adami's letter for a review of

the evidence in support of this charge. We shall not judge the matter here, but will refer to a cognate subject, and will endeavor to show that two years ago Professor Adami expressed a very strong opinion on the non-infectivity of human tuberculosis to animals, and also a view favoring the opinion since advanced by Koch regarding the non-infectivity of bovine tuberculosis to man. These opinions of the Montreal pathologist were expressed in a remarkable paper read before the Canadian Medical Association at Toronto, August, 1899, the title of the paper being "On the Significance of Bovine Tuberculosis and its Eradication and Prevention in Canada." The paper was subsequently published in the CANADIAN JOURNAL OF MEDICINE AND SURGERY, December, 1899.

Frankly we confess, at the outset, that this paper was not received with much favor. Two years ago the identity of bovine and human tuberculosis was accepted by Canadian physicians as dogma. It is true that Theobald Smith, an American pathologist, had shown that cattle are relatively insusceptible or but slightly susceptible to human tuberculosis, although tubercle bacilli obtained from cattle and introduced into other cattle produced in them a relatively virulent disease. Two other American pathologists, Dinwiddie and Frothingham, had also expressed similar views. Dr. Adami endorsed these opinions of the American pathologists. Whatever the reason may have been, this paper, although original and quite remarkable as the production of a Canadian pathologist, instead of being received with favor, rather appeared to evoke a show of opposition.

To physicians and hygienists, who accepted as true the doctrines current two years ago as to the identity of human and bovine tuberculosis, and the infectivity of bovine tuberculosis to man, Dr. Adami's opinion sounded heretical, and his contention that Canadian export cattle were almost entirely free from the taint of tuberculosis seemed quite incredible. We do not know if Dr. Adami has since 1899 taken fresh ground, or if he has actually advanced as far as Koch, who took the world, scientific and non-scientific, by storm with his paper read at the Congress of Tuberculosis, London, February, 1901. Whatever Dr. Adami's attitude may have been when he heard that deliverance, or may be now, he certainly expressed opinions at Toronto in 1899, some of which were almost identical with those expressed by Koch in

1901, as, for instance, when he indicated that, in his opinion, bovine tuberculosis might be regarded as only a possible danger to the health of humanity.

The following quotations from Dr. Adami's paper will serve to illustrate his views in 1899:

(1) "For let my previous contention be kept in mind: that the danger of infection of cattle from man is minimal."

(2) "And when in addition to this we regard also *possible* danger to the health of humanity, surely it is our duty as medical men to support strongly any attempt on the part of the Government to bring about the prevention of this disease in cattle." The wording in the last sentence would seem to indicate that a struggle existed in the mind of the essayist, and the conclusion he wished his hearers to draw is not justified by the anterior premises of his argument. Professional men should not be urged to strongly support expensive and radical measures of prevention against a *possible* danger.

Dr. Adami dismissed the theory of tubercular infection from bovines to man through the eating of tuberculous meat as of small importance, owing to the cooking of the meat, the fact that the bacilli tuberculosis are present in the meat (muscle) in but small quantities, even in advanced cases of the disease, and said that "the principal means of infection from this source would be by contamination of the surface of the meat in the process of dressing by the knives and hands of the operator becoming smeared with the material from other regions, which are the seats of extensive disease."

Continuing, he discussed the chances of infection from the use of tuberculous milk, supporting his opinions by a report of investigations of his own, made at Outremont, P.Q., and came to the following somewhat unsatisfactory (to him) conclusion: "That whereas, in the first place the milk of animals not suffering from udder tuberculosis may contain bacilli; nevertheless, such milk is not of high infective power to the animal's calf, and that, therefore, the frequency with which the bacteriologist may, by inoculation into guinea-pigs, find the milk to be infectious, is not an absolute indication of its danger when employed as food for man."

He further says: "For practical purposes, therefore, I agree with Nocard, that, as regards milk-supply, local tuberculosis of

the udder is what has to be most especially guarded against, and this, not because the evidence at our disposal affords absolute proof of the transmission of tuberculosis from cattle to man, but because *the trend of the evidence is all in that direction.*"

The trend of Dr. Adami's evidence was not in favor of the view that bovine tuberculosis is communicable to man through milk, but he preferred to cling to the theories advocated by other experimentalists, instead of the result of his own observations.

He knew that Theobald Smith's views on the non-communicability of human tuberculosis to bovines were correct, and he so stated the case. He knew that, in a cultural and morphological way, bovine and human bacilli tuberculosis were not the same, but he clung to Nocard's theory that they were different races of tuberculosis, and not different species, and so just missed the discovery recently announced by Koch. Had he taken tubercular material from the mesenteric gland of a patient who had died of intestinal tuberculosis, and injected it hypodermically into a non-tuberculous cow at Outremont, he would not only have been able to state that human tubercle bacilli are non-infectious to bovines, but that the human tubercular material he had injected into the animal was not of animal but of human origin. Dr. Adami has missed a great opportunity. Neither Koch nor any other experimentalist may, for a long time to come, be able to publish cases demonstrating that bovine tuberculosis cannot be made infective to man, although Prof. Baumgarten's cases are open to that construction (*vide Brit. Med. Jour.*, Sept. 7, 1901, p. 635). Koch's distinguishing merit in this discovery is, that being able to tell the difference between human and bovine tubercle (an advantage which Dr. Adami also possessed), he went one step further, and after cultivating in pure culture the tubercle bacilli found in a sample of human tubercular material, and subsequently injecting the same hypodermically into an animal, he ascertained by its behavior in the animal whether it came from a bovine or human source. If from the latter, its pathological effects were practically nil, if from the former they were virulent. His conclusions were obvious; human and bovine tuberculosis are not identical; human tuberculosis is not infectious to bovines; human tuberculosis is not of bovine origin. The demonstration of the proposition that man is not susceptible to bovine tuberculosis is not yet made; but Koch says that "if such a susceptibility really exists

the infection of human beings is but a very rare occurrence." It cannot be said, therefore, that Dr. Adami forestalled Koch's discovery, or that his position is identical with Koch's. Dr. Adami, however, deserves a credit which he does not seem to have received, for throwing doubt upon the frequency of the transmission of tuberculosis from cattle to man, in the paper read in 1899 before the Canadian Medical Association. J. J. C.

EXPERT MEDICAL EVIDENCE IN COURTS OF LAW.

DURING the past month unfavorable comments have appeared in the press in reference to the medical expert evidence given at the Sifton trial for murder at London, Ontario. The general burden of complaint is that the giving of opinion evidence at trials is not one of the proper functions of physicians; that, unless they speak with certainty they should hold their peace, and that admissions of doubt on their part render their testimony valueless. In fact, according to these views, the medical witness should be permitted only to enlighten the Court on the demonstrated facts of medical science, to the exclusion of theories. As illustrative of the entirely different judgment entertained of the function of a lawyer engaged in criminal cases one newspaper says:

"It is recognized as the privilege, and perhaps the duty, of the advocate to divert the attention of the jury from facts inconvenient to his client by such means as he may be able to command, and no popular discredit attaches to him for his efforts in this direction, rather the opposite." In other words, the advocate for the defence is allowed to play his role, to contend that his client is innocent, to produce evidence in support of that theory, to hamper the proceedings of the Crown by every legal device, to ridicule, browbeat, and confuse opposing witnesses so as to discredit their evidence and persuade the jury that it is of little value. At a certain stage of the trial the advocate addresses the jury, uses every argument he can adduce to persuade them to accept his theory, and appeals to their tenderest sympathies, with all the subtle power "that takes the reason prisoner" and makes men stultify themselves. All this is considered perfectly proper, and in fact the duty of the advocate for the defence. On the other hand, the counsel for the Crown is equally strenuous

in endeavoring, by all lawful means, to persuade the jury that the prisoner is guilty.

Owing to the value attached to the opinions of learned physicians, they are introduced by lawyers into the conduct of a case either on the one side or the other, in order to influence opinion and gain a verdict. If it is the privilege and duty of an advocate to divert the attention of the jury from "inconvenient facts" by such means as he may be able to command, he is justified in securing the services of a highly-educated man, or men, who have special knowledge of the matters to be threshed out before the jury, so as to aid him in gaining that end. A medical witness also has a right to form an opinion based on the evidence submitted as to the theory which, to his mind, most clearly explains the question investigated by the Court. He has also the right to aid and assist counsel in weighing medical evidence, and eliciting the credibility of medical witnesses, who hold views of the case in question opposite to those which he holds.

When a physician appears to give an expert opinion in the case, he is called either by the Crown or the defence, and ceases to be an impartial witness when he adopts the theory of the one or the other side. Independent medical witnesses are not wanted in the witness-box.

It has been suggested that an amendment of the law of evidence should be introduced, which would exclude expert medical evidence altogether in criminal cases, except when called on by the Court and paid out of public funds.

This suggestion is open to serious objection, because it rests on mere assumptions, viz., that all medical knowledge is positive, fixed and unalterable, that in a doubtful case there is but one theory adequate to explain a certain assemblage of circumstances or facts, and that one or several medical men, consulted about such a case, should accept one explanatory theory, to the exclusion of others.

Without discussing the pros and cons of these assumptions, we take it for granted that while medical science is positively certain of an immense number of facts, which have been garnered in many fields, she is making advances every day in comparatively unknown regions, so that the real value of some of her acquisitions being undetermined, legitimate differences of opinion in unsettled questions are permissible. It is quite otherwise when a

scientific truth has been determined; argument is then unnecessary. It would certainly be creditable to medical science if she could solve most of the riddles proposed in the courts; but, in the absence of facts, theories must be considered, differences of opinion must exist, and physicians have surely as much right to differ in opinion as other men.

The system of trial by jury, instead of leaving the decision of a case to a judge, is founded on a struggle between two opposing sides, and truth is supposed to be made apparent to the jury from the clash of conflicting opinions. Medical expert evidence, therefore, as part of the evidence in a given case in a court of law, will have to be taken by the jury for what it is worth—definitive and conclusive in some instances, indefinite and of little value in others.

If the present system of presenting opposing theories in order to solve a debatable case were abolished, what would be the result?

To place a medical expert in the position of sole medical adviser to a judge in criminal cases would, *de facto,* make the former sole medical expert to the jury, would give him a despotic influence in cases of life and death, and would prejudice the public mind against what would seem a narrow view of an important function, and a one-sided system of administering justice.

If, on the other hand, a judge were allowed to consult several medical experts on doubtful matters requiring elucidation in a given case, he would probably accept the opinion which, to his mind, would seem most in keeping with the other evidence; but if he were to act on such advice he would be assuming a definite and final responsibility, merely on probable grounds. Moreover, such a system of administering justice would be subversive of trial by jury, because the expert advice supplied for the information of the judge would be limited to the judgment of one man, instead of influencing the minds and regulating the conduct of twelve men.

J. J. C.

THE INDIAN MEDICINE MAN.

Prof. J. F. W. Ross delivered on October 1st in the Biological Building the opening lecture of the winter session of Toronto University Medical Faculty. The students turned out in full force, and the medical profession was well represented. The

Doctor chose as his subject "The Indian Medicine Man and His Work." The lecture was full of interest, and gave evidence of much research and study. The illustrations by means of a lantern added materially to the interest and to the proper understanding and appreciation of the information conveyed in a most entertaining manner. Dr. Ross went very fully into the ceremonies which attended the different years, the graduation of members of the Mide Wiwin, or Grand Medical Lodge and Medical College, and discussed its rites, its teachers and its objects. Graduation was divided into four degrees, a year elapsing between each. Besides the Mide there were, he pointed out, the Wabeno, or Men of the Dawn, and the Jessakios or Jugglers. The symbolical and mystical features of the various degrees, the positions of the sacred posts and the decorations of the lodges, which were square in form, and situated east and west, together with the distinguishing marks worn on the face by the Mide of the various years, and the sacred objects used were illustrated. It was also demonstrated that there were duly certificated female practitioners among the aborigines. The representation of several of the "parchments" issued by the Grand Lodge to graduates was studied with interest by the graduates. The lecturer gave the aborigines credit for possessing a considerable knowledge of the more important organs of the human body and their functions, and related instances of remarkable success in surgery, the treatment of wounds, etc.; an illustration of a skull was thrown on the screen to demonstrate that the ancients understood and practised the art of trephining. In medicine, too, the aborigines of this continent possessed considerable skill. In the treatment of fever they used the "cold pack," as does the profession of to-day, and representations of the "sweat bath" showed that they also used this method to assist in giving freedom and vigor to the mind and suppleness to the muscles.

In conclusion, referring to the curriculum of to-day, the lecturer stated that some studies might be curtailed with profit, while others should have more attention paid to them. He advised the students to be diligent, observant and thoughtful, and to combine physical with mental exercise.

EDITORIAL NOTES.

Is Cancer Curable?—A. Adamkiewicz replies to this interrogatory in a paper published in *Berl. Klin. Woch.*, 10th June, 1901, No. 23, p. 622, which has been abstracted by J. Dumont in *La Presse Medicale.* The patient was a woman, who one year ago exhibited on examination a cancer of the uterus in an advanced condition. The round ligaments and the vagina were attacked; the rectum and the bladder were liable to be attacked at any time; in short, so extensive were the lesions that Professor Albert did not think that an operation would be justified. The medical man attending the case undertook to employ hypodermic injections of Adamkiewicz's Cancroin. A happy result rapidly ensued. The hemorrhages and pains disappeared, sleep and appetite returned. On local examination being made, softening and diminution in volume of the neoplasmic mass were observed. Since that time the retrograde march of the lesions has continued in a marked form, and one year from the beginning of this treatment (the patient was seen at the beginning of last May) the following conditions were present: The smoothness and normal capacity of the vagina have been restored; the vaginal fornices are quite free, the meatus urinarius, which had been infiltrated and everted, is at present wrinkled. On the other hand, the uterus is voluminous, lumpy, indurated, and adherent to the abdominal walls, although quite free from pain. Except a very large ulceration of the posterior lip of the neck of the uterus the latter part looks quite normal. Adamkiewicz proposes a theory to explain the conditions, to the effect that cancroin exercises its action only on young cancer cells in progress of growth. These cells at first soften and are then absorbed and eliminated. In large, old cancers certain pathological elements do not react under the influence of cancroin, or, at all events, if necrosed they are not eliminated and remain *in situ* in the midst of healthy tissues, in which they form indurated nuclei of greater or less extent. From this remarkable case Adamkiewicz concludes: (1) That cancer is curable; (2) That the problem of the cure of cancer should be considered to be scientifically solved. It may be added that cancroin is a substance obtained from cancer, and is a supposed alexin against cancer poison. It has been used hypodermically for the cure of cancer.

To Prevent Malaria.—Some of the measures recommended by Plehn for the prevention of malaria, measures founded on the scientific labors of Celli and Grassi in Italy, and Ross in India, are: The use of quinine, but in smaller doses than those formerly used; its use should be continued for a long time, particularly in the chronic forms of the disease, which are the hardest to cure. New towns to be founded in tropical regions should be placed at a considerable distance from streams, and particularly from the vicinity of stagnant water. The streets should be made wide, should intersect each other at right angles, and be well paved. The houses should be exposed to the action of the wind, each of them being situated in a well-isolated, large garden, in which there should be no trees, which serve to protect mosquitoes from sun, wind and rain. For the same reason no climbing plants should be permitted to grow, or no dark corners be allowed in which the anopheles can easily find shelter. Badly-lighted stables swarm with these mosquitoes. In the interiors of the houses everything should be bright, well aired, spacious, and exposed to the prevailing winds. The good ventilation of a house is not at all spoiled by the presence of mosquito-nets on the doors and windows, and the health of persons who sleep in such a house is not sensibly affected thereby. According to Grassi, who made special studies of the subject near Pœstum, these measures are all the more likely to be efficacious, owing to the fact that only from one to two per cent. of the anopheles are affected by the hematozoa of Laveran.

The Treatment of Medical Shock.—Dr. Osborne says, in a paper read at the fifty-second annual meeting of the American Medical Association: "In all diseases or conditions in which there is a piling up in the blood of absorbed poisons, be they from typhoid or dysenteric ulcers, pus collections, malarial plasmodia or hemoglobin debris, cancerous disintegration, or catarrhal edematous mucous membranes, which are such fine culture-grounds for all germs, any treatment that hastens the evacuation of the excreted bile, impregnated as it is with toxins, made temporarily inert by the good offices of the liver mechanism, will prevent systemic and nervous poisoning and ultimately vasomotor disturbance and medical shock. Dr. Osborne would prevent medical shock in acute febrile processes by causing the emunctories to do good and proper work, or if one is impaired to increase the action

of another, and to keep as clean as possible every localized, suppurating or inflammatory process that may be going on. He discourages in such cases the use of coal-tar antipyretics and analgesics. In order to forestall medical shock, he promotes nutrition, stimulates the heart with alcohol, strychnine, coffee, or camphor, and stops too acute or too long continued acute pain. Should medical shock supervene, cardiac and vasomotor medication, viz., digitalis, should be given hypodermically, as the stomach will not absorb in the condition of shock. Small quantities of hot liquids taken into the stomach also do good by their warmth.

The Ponderability of Odorous Particles.—We notice in *Cosmos*, Paris, a description of a simple yet precise method for obtaining information about the weight of odorous particles. This system of weighing, which is the invention of Mr. Berthelot, consists in allowing the vapor of an odorous substance of known weight to fill a bottle. The substance is then removed and weighed again, and its loss of weight shows the amount of odorous matter in the bottle. A measured fraction of the perfumed air is then drawn off into another bottle, and this operation is repeated until the odor can be no longer perceived. Thus it was found that the limit at which iodoform could be perceived is less than 1-40th of one millionth of a gram (about 3-8ths of one millionth of a grain). Musk, it is said, would perhaps be perceived with a dissemination a thousand times greater; but it is certain that the limit varies with the observer, the sense of smell being more delicate in some persons than in others. The writer in *Cosmos* says, that "this simple and precise method may be used with any odorous bodies whatever." With regard to the ponderability of odorous particles, it is commonly observed that people apply a handkerchief to the nose or mouth, when they come into contact with a stench. The silk or linen fabric then acts as an imperfect filter, which strains off the solid particles floating in the air, with which the unpleasant odor is associated.

The Determination of Sex.—At a congress of Zoology, which met at Berlin last summer (*Le Progres Medical*, August 24th, p. 127), the question of the determination of sex was discussed. Professor Schenck, of Vienna, who, as is well known, maintains the opinion that a prenatal influence can be exercised in determining the sex of an infant by means of the alimentation of its mother, cited a number of experimental

facts in support of his theory. He declared that the sole actuating motive of his studies was a wish to discover the facts, and he characterized as untrue a rumor that he had been summoned to a certain European court, in which the children born to the monarch had, so far, been girls. In the ensuing discussion, which was very lively, Dr. Hanchekorne stated that, as a physician, he was opposed to Professor Schenck's theory, which he looked on as a positive social danger, the realization of which he would deeply regret.

A Defunct Company.—Chief Justice Meredith, sitting at Osgoode Hall, granted an order on the 15th ult. winding up the Physicians' and Surgeons' Supply Association, Limited, of Toronto, whose headquarters are in the Confederation Life Building. Mr. E. R. C. Clarkson was appointed provisional liquidator. There was something unusual about the order, inasmuch as it was granted on two applications—of Evans & Sons, creditors for $700, and J. Stevens & Son Company, creditors for $1,500. Other creditors are: Ontario Bank, $2,900; Wampole & Company, $800; Dr. Henry, $400. The bank holds as part security a $1,000 note, signed by the Executive Committee of the Association. The total liabilities are $7,000, and assets nominally the same, including $3,500 stock-in-trade, $1,800 book debts, and $1,500 unpaid calls due by shareholders. The directors of the Association are as follows: Dr. James Henry, Orangeville; Dr. John S. King, Toronto; Dr. J. M. Shaw, Keene; Dr. C. J. W. Karn, Picton; Dr. S. C. McLean, Spencerville; Dr. J. M. Stewart, Chesley; Dr. J. A. Robertson, Stratford; Dr. W. H. Alexander, Toronto; Dr. G. M. Brodie, Claremont.

First Egyptian Congress of Medicine.—We beg to acknowledge the receipt of a preliminary programme and a circular letter from Dr. Voronoff, General Secretary of the first Egyptian Congress of Medicine, to be held at Cairo, Egypt, December 10-14, 1902, under the patronage of His Highness the Khedive. Special attention will be devoted to diseases peculiar to Egypt, such as bilharzia, duodenal ankylostoma, bilious fever, abscess of the liver, etc. Reports and papers will also be presented dealing with the epidemic diseases, which of late years have appeared in Egypt and threaten Mediterranean ports, as well as preventive measures and quarantine. The final programme will be sent later, as well as information regarding the trip, reduced fares, etc.

Gravenhurst Sanitarium.—The main building of the Gravenhurst Free Hospital for Consumptives, which is being erected by the National Sanitarium Association for the poor and wage-earners of Ontario, is progressing favorably. The roof is about completed, and in view of the large number of men at work, the institution will probably be ready for occupation in the course of a few weeks. This new free hospital will be under the same management as the Muskoka Cottage Sanatorium. It will accommodate fifty patients at the start, and will be increased as fast as the money is forthcoming for that purpose. By using summer pavilions at least one hundred patients will be provided for during the greater proportion of next year. The hospital has fifty-six acres of park, and therefore may be extended almost indefinitely.

Double Acetate of Theobromine and Sodium.—Dr. D'Estrée (Brussels) shows that theobromine is one of our best diuretics. Unlike caffeine, it has a weak cardio-vascular action, but acts directly on the kidneys. To make it more absorbable it is prepared in the form of the double salicylate of theobromine and sodium, or diuretine, which proves rather irritating to the digestive passages. Dr. D'Estrée has tried the double acetate of theobromine and sodium, or azurine, a very soluble salt, which is also less caustic than diuretine, and has been well satisfied with it. Given in a dose of from 1 gramme to 0.25 per diem, azurine is said to have produced marked diuretic effects, the urine of the patient becoming not only more abundant but also containing more urea and urinary salts.

Koch's Bacilli in Scrofulous Lymphatic Glands.—G. d'Arrigo reports (*Centralblatt fur Bakteriologie,* October 27th, 1900, t. xxviii., No. 16, p. 481) that by using a special method of staining in treating Koch's bacilli, he has studied scrofulous glands removed by surgical operation from persons ranging from four to twenty-eight years of age. From the examination he concludes that scrofulous glands are affected with an attenuated form of tuberculosis. Lymphatic glands offer barriers to the penetration of Koch's bacilli into the organism, stop it, destroy it, or weaken its virulence. At a subsequent stage they may become foci for the dissemination of tuberculosis.

Dog Liver Oil.—We notice in the *Journal of the American Medical Association* that dog-liver oil is being used in the United States as an infallible cure for consumption. Alluding to a

city in the United States, it says: "The gentleman who has the contract for the removal of dead animals from the streets has found that an oil prepared from the hearts and livers of dogs is a sovereign cure, and a number of cases are named where wonderful results are said to have followed its use." This is not a very new cure, after all. The writer has a patient, a Hebrew, who stated recently, that thirty years ago, when living in Berlin, Germany, he was cured of consumption by the systematic use of dog oil.

Gasterine (Gastric Juice of the Dog).—This agent has been used successfully in France in different cases of hypochlorhydria and in pronounced diarrhea. In many cases of weak stomach, diarrhea is secondary. The aliments leaving the stomach rapidly and being but slightly changed, prove irritating to the intestines. These secondary diarrheas are often benefited by the use of mixtures containing hydrochloric acid. Gasterine is thought to prove curative in a similar fashion.

PERSONALS

Dr. Robillard has resigned his position as Medical Health Officer of Ottawa.

Dr. and Mrs. W. A. Young enjoyed a couple of days at the Pan Am. last week.

Dr. W. H. Pepler returned a month ago after spending four weeks through the West.

Congratulations to Dr. Alex. Primrose upon the birth of another little one a few weeks ago.

McMicking—On October 13th, at his residence, No. 1 Washington Avenue, George McMicking, M.D., in his 77th year.

Dr. J. E. Craig, of Ottawa, has accepted the appointment of resident physician at Porter's Island, to look after the smallpox patients.

Dr. McCullough, son of Dr. J. McCullough, Spadina Ave., has returned from his ranch in the West, and will spend the winter in Toronto.

Dr. Vaux, Chairman of the Provincial Board of Health of Ontario, who purchased the handsome residence of W. T. Murray, Esq., No. 66 Bond Street, has made his home in Toronto.

Among the medicos who have taken up equestrian exercise this fall, and can be seen in "the pawk" on these beautiful cool afternoons, is Dr. F. N. G. Starr. The Doctor is becoming an able horseman, and the sport is improving his good looks, if that were possible.

Mr. Frank A. Ruf, President and Treasurer of the Antikamnia Chemical Company, St. Louis, has been elected Vice-President of the Fourth National Bank, St. Louis, Mo.

Drs. R. J. Wilson and Herbert Bruce, of Bloor Street, were enthusiastic members of the Decoration Committee having charge of making Bloor Street, east and west, presentable for "the Dook," God bless him!

It is to be hoped that the Board of Police Commissioners will take action without delay in the matter referred to in our recent editorial as to what would appear to be nothing short of a monopoly held by Coroner W. J. Greig, of this city, in the matter of city inquests.

Dr. Charles Sheard is practically rebuilding his residence on Jarvis Street. If the house when complete turns out to be anything like as handsome as his colonial cottage on the Island, there will be few residences on Jarvis Street which, in point of taste and beauty of outline, will excel it.

Dr. J. M. MacCallum has been laid up with a nasty and painful attack of rheumatism, but is again improving. The Doctor has been much missed from Rosedale Golf Club for the past six weeks, as, with his Musselburgh swing, he has been establishing a new record over Rosedale course.

There were between forty and fifty doctors subpœnaed to give evidence, expert and otherwise, at the Sifton trial in London, Ont., a few weeks ago. Among those from Toronto put in "the sweat box" were Dr. Arthur Jukes Johnson, Dr. Harry B. Anderson, Dr. George Bingham, Dr. John Ferguson and Mr. Irving Cameron.

Mr. Shinn, of Philadelphia, Pa., representing the Liberty Chemical Company of that city, called to see us during the past month in the interests of Thermol and other preparations made by that house. We understand that Elliott & Co. and Lyman Bros. & Co., Limited, of this city, are to act as Canadian agents from this date.

Dr. Albert A. Macdonald, of Simcoe Street, has the honor of being the first practitioner to use an automobile in making his city rounds. It is a Stanhope phaeton, with a full leather top and solid rubber tires, the motor power being electricity generated from a series of storage batteries, and was built by the Canadian Motors, Limited, Toronto, Ont. It is a very nice-looking trap, and has yellow striped gear. The Doctor pronounces it a distinct success, and says that he can save at least an hour in his afternoon's work alone. We understand that Dr. Jennie Gray intends to adopt this system of transportation also, and hope that other practitioners in Toronto will follow this good example, at least those who are guilty of driving horses not fit to be seen. Doctor, won't you please take this hint?

Correspondence.

The Editor cannot hold himself responsible for any views expressed in this Department.

UPON PROFESSOR KOCH AND MATTERS OF PRIORITY.

To the Editor of THE CANADIAN JOURNAL OF MEDICINE AND SURGERY.

SIR,—Remembering that the address upon "The Significance of Bovine Tuberculosis and its Eradication and Prevention in Canada," delivered by me before the Canadian Medical Association in 1899, was first published in your journal, it is almost a duty on my part to accept your invitation to state fully my views as to my position in reference to Professor Koch and his London address—an address part of which covered much the same ground as that covered by me two years ago.

It is admittedly difficult to find fault with or see willingly any blemish in those we regard as great men; we would all picture our heroes, scientific or otherwise, as *sans reproche*. No one would dispute the credit due to Prof. Koch for the discovery of the bacillus of tuberculosis; indeed, in this discovery he has made a name that will go down through the ages, and has conferred a benefit upon mankind which it is impossible to estimate. But it has to be admitted that, since that discovery, his conduct towards other scientific men, working along similar lines, has been, to say the least, reprehensible.

It is held, and held rightly, to be the duty of scientific observers to acknowledge fully the work previously done by others, along the same lines, at least until such time as that work attains general acceptance. It is the duty of each worker before publication to make sure that he is not claiming for himself credit that is due to others. It is not easy always to discover such earlier work; it may be buried in some obscure journal or in the proceedings of some relatively little known society, but certainly nothing appearing in the leading journals of Germany, France, Great Britain and the United States ought to be passed over. It is very possible, and it happens not infrequently, that an active worker and writer occasionally, and by accident, fails to credit his fellow-workers; but when this failure to acknowledge the observations of others is frequently repeated, no excuse can be asked or can be accepted. Either the individual who commits the crime is absolutely callous, and has callously determined to aggrandize himself at the expense of others, or he suffers from a form of disease—from megalomania, by which we

mean that such an individual becomes so full of his subject, and of himself, that he regards every idea and every fact as his own whether the idea has previously been enunciated, or is the natural and independent development of his own line of work and thought, or has been in the first place obtained from the work and the writings of others.

We are inclined to think that the second is the more probable explanation in the case of Professor Koch.

When, for example, he announced the discovery of tuberculin, he had not a word to say with regard to the observations of the other workers who had previously investigated the action of the products of growth of the tubercle bacillus, among whom I may mention Crookshank, of London, and, if I mistake not, Buchner, of Munich. He took all the credit to himself. When next he described (and described imperfectly) his method of preparation of tuberculin, no credit was given to Roux and Nocard for the discovery that the tubercle bacilli would grow in media to which glycerin had been added, glycerinated broth being the medium from which he prepared the tuberculin. When later he gave his observations upon the chemical nature of tuberculin, not a word was said about the previous careful observations of Hunter and of others who had before him reached practically identical results, and, indeed, had made fuller researches. Only recently, taking up the subject of malaria, he has had the hardihood to take to himself all the credit for the discovery of the important part played by mosquitoes in the propagation of this disease, and has refrained from saying a word of due praise concerning the prior observations of Ross, and Italian and yet earlier American workers.

These facts are well known to those conversant with bacteriological literature, but such is Professor Koch's power and influence in Germany that younger men dare not disclose these matters in the public press for fear lest their careers should be injured, while his colleagues of professorial rank say nothing about the matter, fearing lest it should be thought that their motive was one of mere jealousy. It is left to those of other nationalities to bring forward these facts, unpleasant as they are.

In his recent address in London, which has caused so great a sensation not only in the medical world, but among all those in any way interested in the subject of tuberculosis, more than one example can be brought forward of this baneful habit of Prof. Koch. He describes there the experiments he has carried on during the last two years along with Prof. Schutz of the Veterinary College in Berlin. Six young cattle were fed on tuberculous sputum almost daily for seven or eight months; four repeatedly inhaled great quantities of bacilli, which were distributed in water and scattered with it in the form of spray; in others, sputum or tu-

bercle bacilli were injected under the skin; in others into the peritoneal cavity, and in others into the jugular vein. None of the nineteen cattle thus subjected to the action of the tubercle bacilli from cases of human tuberculosis showed any symptom of the disease. The result was different, however, when the same experiments were made employing tubercle bacilli from the lungs of an animal suffering from bovine tuberculosis. In such animals there was a rapid development of acute tuberculosis. Also, when swine were fed with material from tuberculous sputum from consumptive patients, they remained healthy and grew well, whereas those other swine which received bovine tubercle bacilli for the same period suffered without exception from severe tubercular disease. Several experiments were made with asses, sheep and goats, with similar results.

"Our experiments," says Koch, "are not the only ones that have led to this result. If one studies the older literature on the subject, and collates the reports of the numerous experiments that were made in former times by Chauveau, Gunther and Harms, Bollinger and others, who fed calves, swine and goats with tubercular material, one finds that the animals that were fed with the milk and pieces of the lungs of tubercular cattle always fell ill of tuberculosis, whereas those that received human material with their food did not. Comparative investigations regarding human and bovine tuberculosis have been made more recently in North America by Smith, Dinwiddie, and Frothingham, and their results agree with that of ours. The unambiguous and absolutely conclusive results of our experiments are due to the fact that we chose methods of infection which excluded all sources of error, and carefully avoided everything connected with the stabling, feeding and tending of the animals that might have a disturbing effect on the experiments."

The impression here given upon first reading is that earlier investigators, and even the more recent investigators in North America, obtained ambiguous and not absolutely conclusive results, and that to Koch and Schutz is due the credit of conclusively proving that under normal conditions cattle are immune to bacilli obtained from cases of human tuberculosis, and that Theobald Smith, Dinwiddie, and Frothingham did not exclude all sources of error. The facts are, however, that in this matter Professor Theobald Smith, in 1898, had performed, and published in the *Journal of Experimental Medicine* equally careful and equally conclusive observations upon a large scale, while Frothingham's observations, which preceded Smith's, cannot be attacked save that the number of animals experimented upon was smaller, and Dinwiddie's, which followed Smith's, are as precise as those of Theobald Smith. To these observers certainly belongs the credit which Koch would arrogate to himself and Schutz. Theobald

Smith is well known as a model of extreme accuracy and careful work; he occupies the position not merely of being a leading American bacteriologist, but is recognized as one of the first among bacteriologists of all countries; he obtained cultures of the tubercle bacilli from seven different sputa of human beings suffering from phthisis, and from six different cattle suffering from the disease. With these he compared cultures obtained from the pig, the cat, from the horse, and from a pet coati. He inoculated these into a large number of perfectly healthy cattle, and found marked differences, just as did Prof. Koch at a later date, when he employed the human and bovine bacilli respectively. The difference he showed was especially well marked when subcutaneous rather than intraperitoneal inoculations were made. Koch, in another portion of his address, takes credit to himself for this same observation. Smith's results show that in cattle treated identically and given equal quantities of growths of tubercle bacilli emanating from man and from cattle respectively, in the former only a localized and thus non-infectious disease is produced, in the latter a generalized and consequently infectious disease develops. Frothingham, Theobald Smith and Dinwiddie are workers in comparative pathology, and interested themselves particularly with the question as to whether tuberculosis is infectious from man to the domestic animals.

At the meeting of the Canadian Medical Association at Toronto on August 30th, 1899, I took up the fuller question with regard to the significance of bovine tuberculosis. I noted the observations of Smith, and pointed out that at the Experimental Station at Outremont the inoculations, so far as they had gone, confirmed those observations. Passing on from this, I inquired whether, if infectious from animal to animal, bovine tuberculosis is infectious from animal to man. I pointed out that, could a direct experiment be made, the determination would be easy and straightforward, but that this is just what we cannot do. I next took up the question of the cultural characteristics of the bacilli from the two sources, and showed that they were not identical, and both these methods of inquiry failing to answer the question, asked if there were any evidences of absolute proof that by natural means tuberculosis has been conveyed from cattle to man. Here I laid down that when we come to examine into the reported cases, we are struck by the lack of positive evidence afforded in the majority of cases on record. Next the statistics with regard to the frequency of intestinal tuberculosis in children was discussed, and it was shown that, following Dr. G. F. Still, respiratory infection is commoner in children than is alimentary, in about the ratio of 57.2 to 23.4, and the conclusion was drawn that it must be admitted that among young children alimentary infection, while not so high as had been thought, is relatively high. Then quoting

a few cases from the literature, I concluded that the evidence, while not absolutely convincing, is strongly in favor of the view that tuberculosis can be conveyed through the milk of animals extensively diseased.

This paper of mine, throwing doubt as it did upon the frequency of infection through milk, caused, it may be remembered, not a little sensation. It was published both in the CANADIAN JOURNAL OF MEDICINE AND SURGERY, December, 1899, and in the *Philadelphia Medical Journal* of the same month. Ravenel, Dinwiddie and others criticized it in the leading medical journals and referred to it in sundry reports. Thus for two years this question of the infectiousness of milk has been actively discussed on this continent. It may be that our Canadian journals have no very large circulation outside Canada, but the *Philadelphia Medical Journal* takes a first rank among the American weekly journals of medicine. Now, Professor Koch, in his address, brought forward a parallel argument. To say the least, it was his duty to point out that others before him had discussed this subject of the transmission of tuberculosis by means of milk, instead of leaving us to gather that he is the first responsible worker who has clearly enunciated that "if such a susceptibility really exists, the infection of human beings is of but very rare occurrence" (I quote from Professor Koch). I cannot but imagine that my paper must have found its way to Professor Koch, or at least to the Institut fur Infektionskrankheiten in Berlin, of which he is the director, for copies of the address were asked for by the German Consul in Montreal for transmission to his Government, and such copies were sent and would surely have been referred by the Government to its leading official in connection with infectious disease.

This matter of priority is but of secondary importance in science, and had this been an isolated case not a word need have been said about it; but when Professor Koch has so repeatedly taken to himself the work of others, it is but right that the matter should be brought forward.

I am, sir,

Yours faithfully,

J. GEORGE ADAMI.

J. H. R. Molson Pathological Laboratory, McGill University,
Montreal, October 5th, 1901.

Postscript.—Since I wrote this letter, you have very courteously forwarded to me the editorial upon this subject written by one of your colleagues. That editorial is written so considerately that I can venture to make no criticism upon it. The writer has clearly appreciated the position I was in when I delivered the address, that of wishing to state definitely my doubts as to the

frequency of tubercular infection from cattle to men, without at the same time doing what Koch has unfortunately accomplished, namely, causing a general distrust and unsettlement in the community as to the absolute necessity of striving with all our power to eradicate bovine tuberculosis, or causing the agricultural interests to become opposed to governmental and municipal action directed towards accomplishing such eradication. What I regard as almost criminal in connection with Professor Koch's London address is that he was satisfied to lay down his belief that bovine and human tuberculosis are distinct, and not intertransmissible diseases, without calling full attention to the fact that, even if this be so, it should not one whit lessen our endeavors to stamp out by every possible means a scourge which yearly is inflicting an enormous pecuniary loss upon (more especially) European communities. It is no valid excuse to urge that his address was not upon the dangers of bovine tuberculosis, but upon the modes of transmission of tuberculosis in and to man. Considering the occasion, the audience, and the certainty that his views would be published *urbe et orbi,* what he had to say with regard to the danger of bovine tuberculosis should have been so guarded as to limit sharply the effects of his statement to the matter in hand, and not to influence the work of diminishing the spread of bovine tuberculosis. For as he uttered his statement his address most unfortunately, and, as I say, almost criminally, is having this effect.

One criticism, or rather amplification, of the editorial I may be permitted to make. I still believe, as I did when the address was delivered two years ago, that *under special conditions and occasionally,* bovine tuberculosis is transmitted to man. The evidence is too strong to have any doubts about this. I believe that such transmission is rare. It will be seen, upon careful study of Koch's address, that he also admits the possibility of occasional transmission, though he minimizes the danger from this more than I am prepared to do. But certainly I deny that we are dealing with two distinct species of tubercle bacilli. As stated in my report to the Department of Agriculture for 1899 (Report of the Minister of Agriculture, 1899, p. 140), we are dealing with races of one species of microbe modified by transmission through animals of different species. And as an illustration of my position I there cited the case of the relationship of small-pox to cow-pox, the illustration which, I may note, was employed by Lord Lister in his criticism which immediately followed the delivery of Professor Koch's address. J.G.A.

Montreal, October 14th, 1901.

The Physician's Library.

BOOK REVIEWS.

The Principles and Practice of Medicine. Designed for the use of practitioners and students of medicine. By WILLIAM OSLER, M.D., Fellow of the Royal Society; Fellow of the Royal College of Physicians, London; Professor of Medicine in the Johns Hopkins University, and Physician-in-Chief to the Johns Hopkins Hospital, Baltimore; formerly Professor of the Institutes of Medicine, McGill University, Montreal; and Professor of Clinical Medicine in the University of Pennsylvania. Fourth edition. New York: D. Appleton & Co. Canadian agents, The Geo. N. Morang Co., Limited, Toronto. 1901.

The author of this volume, a work which has made a very enviable name for itself, pays a most becoming compliment to those who were his teachers before he left the land of his birth, by placing upon he page following the title page of his book the following words:

TO THE MEMORY OF MY TEACHERS

WILLIAM ARTHUR JOHNSON,
Priest of the Parish of Weston, Ontario.

JAMES BOVELL,
Of the Toronto School of Medicine and of the University of Trinity College.

ROBERT PALMER HOWARD,
Dean of the Medical Faculty and Professor of Medicine, McGill University, Montreal.

No one will accuse us of being fulsome when we state that in medicine the name of William Osler stands for scientific attainment, and that anything coming from the pen of our distinguished countryman can and will at once be accepted as the best. Osler's "Medicine" has now reached high-water mark, and is looked upon as one of the very best works on Practice in print. We have looked carefully over the fourth edition, and have read with a great deal of pleasure the article on typhoid fever. This chapter has been almost entirely rewritten, and, what will be most valuable,

Dr. Osler has given us the benefit of his clinical experience in typhoid at Johns Hopkins Hospital. In discussing the eliminative and antiseptic treatment, regarding which the author and our friend, Dr. W. B. Thistle, of this city, have had some discussion, Dr. Osler says: "The systematic use of purgatives is, in my opinion, very bad practice. No one feature in the disease is, I think, more serious than persistent diarrhea. The preliminary calomel purge, so much used, is not necessary. Graves remarked that patients who escaped active purgation before admission to the hospital usually had much less bowel trouble."

The author has added several new articles to his fourth edition, *e.g.*, arsenical poisoning, aphasia, congenital aneurism, adiposis dolorosa, splenic anemia, acute tuberculosis, surgical treatment of aneurism and scurvy, Meniere's disease, etc.

The fourth edition of Osler's "Medicine" is a volume in every way complete, and contains all in the practice of medicine required by the most ardent practitioner. The author is to be congratulated upon the result of his labors.

Surgical Technic: A Text-Book on Operative Surgery. By Fr. Von Esmarch, M.D., Professor of Surgery at the University of Kiel, and Surgeon-General of the German Army; and E. Kowalzig, late first assistant at the Surgical Clinic of the University of Kiel. Translated by Prof. Ludwig H. Grau, Ph.D., formerly of Leland Stanford Junior University, and William N. Sullivan, M.D., formerly surgeon of the U.S.S. *Corwin*, assistant of the Surgical Clinic at Cooper Medical College, San Francisco. Edited by Nicholas Senn, M.D., Professor of Surgery at Rush Medical College, Chicago. "Kurs und Bundig." With 1,497 illustrations and fifteen colored plates. New York: The Macmillan Company. London: Macmillan & Co., Limited. 1901.

The name of Esmarch has been to many of even the now older surgeons a household word in the art of surgery for years and years, now held only in memory. Those of us who were medical students in the early eighties can well remember how Esmarch's bandage was held up to us as a model to be borne in mind and put into practice. Esmarch as a surgeon is known the wide world over, and nothing could have been more appropriate than that his works be presented to the English-speaking profession in one volume. We feel that this volume will be hailed with delight, and will make a record sale. Dr. Senn was wisely chosen as editor, his name being held in the highest esteem by a large number of followers in the United States and Canada.

The work of those who undertook the necessary amount of translation to accomplish this feat has been no easy task, and, judging from the manner in which each subject is presented, we

feel that Drs. Grau and Sullivan have adhered as closely as possible to the original author's meaning and intentions.

This book represents naturally a considerable amount of boiling down of superfluous and unnecessary matter, but it is all the better for this. The illustrations are very fine, and improve the value of the volume exceedingly. Dr. Senn has in many places added notes where he thought it wise, but those he has bracketed.

The Macmillan Company deserve great praise for the beautiful manner in which they have done their part of the work. The paper is superfine and heavy, the text most legible and clear, and the half-tone and colored plates very well executed.

Progressive Medicine. A quarterly digest of advances, discoveries and improvements in the medical and surgical sciences. Edited by HOBART AMORY HARE, Professor of Therapeutics and Materia Medica in the Jefferson Medical College of Philadelphia; Physician to the Jefferson Medical College Hospital; Laureate of the Royal Academy of Medicine in Belgium, of the Medical Society of London; Corresponding Fellow of the Sociedad Espanola de Higiene of Madrid; Member of the Association of American Physicians, etc., assisted by H. R. M. LANDIS, M.D., Assistant Physician to the Out-patient Medical Department of the Jefferson Medical College Hospital. Vol. III., September, 1901: Diseases of the thorax and its viscera, including the heart, lungs and blood vessels, dermatology and syphilis, diseases of the nervous system, obstetrics. Philadelphia and New York: Lea Bros. & Co. 1901.

Among the contributors to "Progressive Medicine" for the current year appears such names as Drs. Henry B. Baker, Lansing, Mich.; J. Chalmers Da Costa, of Jefferson Medical College; W. B. Coley, of New York; William Ewart, of St. George's Hospital; W. S. Gottheil, of the New York School of Clinical Medicine; A. L. Turner, of Edinburgh, and our friend, Dr. A. D. Blackader, of Montreal. Of these, Drs. Ewart, W. S. Gottheil, W. G. Spiller and R. C. Norris contribute articles to Vol. III.

The section which interested us most was that devoted to dermatology and syphilis, by Dr. W. S. Gottheil, of New York. It is full of the most interesting material, containing the latest facts upon most subjects coming under this department. The half-tone illustrations come out clearly and distinctly, especially those illustrating blastomycosis, chromophytosis of the palm and face, gangrenous dermatitis, epidermolysis bullosa and lepra tuberosum.

Lea Bros. & Co.'s work, "Progressive Medicine," has met with a very good reception at the hands of the profession. This is but

deserved, as the publishers spare no expense to give the subscribers from quarter to quarter and year to year the biggest possible value for a very small amount of money, and at the same time present the material in a manner worthy of one of the oldest publishing houses in America.

Diseases of the Intestines. By DR. I. BOAS, Specialist for Gastro-Intestinal Diseases in Berlin. Authorized translation from the first German edition, with special additions by Seymour Basch, M.D., New York City. New York: D. Appleton & Company. 1901. Canadian Agents: Geo. Morang Co., Limited, Toronto.

The pathology of the alimentary tract is assuming a much more important stage than formerly in the relationship to disease, and with much benefit to the public, and the analysis of the intestinal dejecta is becoming a much more important factor than formerly in the diagnosis and treatment of disease. The deductions which can be drawn after repeated and careful examinations of the feces, will fulfil a long felt want as an aid in the diagnosis of many diseases and conditions of the system, which the analysis of urine and sputum have done for other organs and organic diseases of the body. The Germans have long been foremost in the progress of pathology, and certainly the American edition of this German work has exemplified the thoroughness and progressiveness of the German author, who has produced such an excellent work.

The name of the publishers is a guarantee for the excellent quality of the presswork and binding of the book, which contains some 560 pages, and is well illustrated.

In addition to what has already been said, among the most important features of this publication are the anatomical and histological remarks and the physiologico-chemical remarks on the intestinal gases; improved methods for the examination of the patient, such as the employment of Roentgen Rays in the diagnosis of intestinal diseases, and methods showing the diagnostic value of the examination of the stomach contents, and of urinary examinations in intestinal diseases.

The dietetic and hydrotherapeutic treatment of intestinal diseases, massage and electro-therapeutics, together with injections and intestinal lavage, are among the many subjects treated in connection with the general therapeutics of intestinal diseases.

A suitable portion of the book is devoted to the surgical diseases of the intestine; among these are typhlitis, appendicitis, intestinal neoplasms, ulcers of intestines and diseases of the rectum, which are thoroughly dealt with in an up-to-date way.

The book is to be highly commended to the general practitioner, as affording one of the best dissertations on one of the most important, and in the past one of the most neglected subjects con-

nected with the diagnosis and treatment of the diseases of mankind. The author thinks the medical practitioner should bear the responsibility for operative interference in intestinal diseases, while the surgeon should be responsible for the technic of the operation.

He is inclined to believe with conservative surgeons that we have almost reached the limits of possibility in intestinal surgery, and advises the medical practitioner to keep pace with the times as to progress in abdominal surgery, and to use every opportunity to witness operations on the intestine, etc., so that he can be the better able to decide on the indications for operative procedures in diseases of the stomach and intestines, as well as of the liver and gall bladder. E. H. A.

A Hand-Book of Pathological Anatomy and Histology. With an Introductory Section on *Post-mortem* Examinations and the Method of Preserving and Examining Diseased Tissues. By FRANCIS DELAFIELD, M.D., LL.D., Professor of the Practice of Medicine, College of Physicians and Surgeons, Columbia University, New York; and T. MITCHELL PRUDDEN, M.D., LL.D., Professor of Pathology and Director of the Department of Pathology, College of Physicians and Surgeons, Columbia University, New York. Sixth Edition, with 13 full-page plates and 453 illustrations in the text in black and colors. New York: Wm. Wood & Co. 1901.

It does not fall to the lot of many authors to live to see any of their works appear in the form of a sixth edition. There is nothing which could so conclusively prove the scientific value of any book, no matter what its subject might be, as the fact that its reception has been of such a character as to necessitate its being re-written five different times. Drs. Delafield and Prudden must indeed feel almost flattered at the manner in which their "Hand-Book of Pathological Anatomy and Histology" has been received by the profession. It can safely be said that this work is now looked upon as one of the standard text-books, and we feel that it ought to appear, not on some, but on all, of our college lists. We admit that the section which, in the sixth edition, took up our attention was that on "The Method of Making *Post-mortem* Examinations." There is no doubt that there is too little knowledge prevalent among ordinary practitioners as to the correct manner of making autopsies. Frequently does it occur, when necessity arises for the opening of a cadaver, that the medical attendant has, owing to lack of practical knowledge in such matters, to employ some one better fitted to do the work than himself. This ought not to be the case, and if all would study carefully the first forty-two pages of Delafield and Prudden, they would never again have to divide their fee with another. This book contains much information of especial interest to coroners, Chapter II. covering such subjects as sudden death, suffocation, asphyxia, death from strangulation, hanging,

death from drowning, from electricity and from burning. Part II. is devoted to General Pathology, *e.g.*, changes in the circulation of the blood, atrophy and degeneration, hypertrophy, metaplasia, animal and plant parasites, the infectious diseases, tumors and lesions induced by poisons. Part III. covers Special Pathology, *e.g.*, lymph nodes, the spleen and thymus, the thyroid and adrenals, the circulatory and respiratory systems, etc. For a work on Pathological Anatomy, which is complete and thorough, we heartily commend "Delafield and Prudden." W. A. Y.

Nervous and Mental Diseases. By ARCHIBALD CHURCH, M.D., Professor of Nervous and Mental Diseases and Head of Neurological Department, Northwestern University Medical School; and FREDERICK PETERSON, M.D., Chief of Clinic, Department of Nervous and Mental Diseases, and Clinical Lecturer on Psychiatry, College of Physicians and Surgeons, New York. Third Edition, Revised and Enlarged. Handsome octavo volume of 870 pages, with 322 illustrations. Philadelphia and London: W. B. Saunders & Co. Canadian agents, J. A. Carveth & Co., Toronto. Cloth, $5.00 net. 1901.

It takes but a short time for the reader of this work to recognize the fact that the authors have, in issuing their third edition, gone to a considerable amount of labor to make their book entirely modern, so that it can be looked upon as containing everything most recent in neurology and diseases of the mind. If there is one study in the whole of science requiring a clear, simple style of writing in order to make it at all interesting, it is the subject of this volume. It is quite common to hear men, who are even looked upon as litterateurs, say that for flat, uninteresting reading, commend them to the average book on nervous diseases. After looking, even cursorily, through "Church and Peterson," however, most readers will conclude that, except in one or two chapters, they cannot find this fault. The text is beautifully clear and the subject of each chapter or section so dealt with as to make the reader desire to continue the study rather than otherwise. The authors have divided the book into two sections, nervous diseases and mental diseases, the former subdivided into eight parts. Part I. includes the Examination of Patients; II., Diseases of the Cerebral Meninges and Cranial Nerves; III., Diseases of the Brain Proper; IV., Diseases of the Spinal Meninges and Spinal Nerves; V., Diseases of the Cord Proper; VI., Diseases of the General Nervous System with Known Anatomical Basis; VII., Diseases of the Nervous System without Known Anatomical Basis; and VIII., Symptomatic Diseases. Under the section on Mental Diseases are considered the Definition and Classification of Insanity, General Etiology of Insanity, General Symptomatology of Insanity, Examination of the Patient, General Treatment of Insanity, Mania, Melancholia, Circular and Epileptic Insanity, Dementia, Paranoia and Idiocy. W. A. Y.

Diseases of the Nose and Throat. By D. BRADEN KYLE, M.D., Clinical Professor of Laryngology and Rhinology, Jefferson Medical College, Philadelphia; Consulting Laryngologist, Rhinologist and Otologist, St. Agnes' Hospital. Handsome octavo volume of about 650 pages, with over 150 illustrations and six lithographic plates. Price, cloth, $4 net; half morocco, $5 net. Philadelphia: W. B. Saunders & Co. Canadian Agents: J. A. Carveth & Co., Toronto.

The present volume is intended to answer the needs of students as well as practitioners. The extensive experience of the author has enabled him to be concise and definite as to treatment, thus giving the student more definite guidance in practice than he gets from some, in other respects excellent, text-books of the present day.

The opening chapter on Anatomy and Physiology and the one concerned with the pathology of inflammation of mucous membranes are, we think, excellent. They are written in a most succinct and interesting manner, making it very easy for the student to read, and, what is of more importance, he cannot fail to understand as he reads, so giving him a clear knowledge of these subjects, which are of the utmost importance in the making of correct diagnoses, and the rational treatment of so many of the diseases of nose and throat.

The article devoted to nasal syphilis is one of the clearest and most satisfactory we have seen, although we cannot agree with the author as to the efficacy of the protiodide in the treatment of secondary manifestations.

An important and most comprehensive article on a subject of the greatest practical importance to both patient and physician is that on Empyema of the Antrum.

The author's operation for removal of the tip of the uvula is one which may save no small amount of pain to the patient. The chapter on intubation of the larynx, although occupying only nine pages, is most exhaustive and complete, giving every direction and detail which the student or practitioner could possibly require.

The volume is an acquisition, forming a most complete and trustworthy reference and text-book. J. D. T.

The Diseases of the Respiratory Organs, Acute and Chronic. By WILLIAM F. WAUGH, A.M., M.D., Professor of Practice and Clinical Medicine, Illinois Medical College, etc. Pages 221. Price $1.00 net. Chicago: G. P. Engelhard & Company, 1901.

In the author's preface he states that "this book has been prepared because of the writer's belief that the treatment of acute affections of the respiratory organs has progressed far beyond that given in the text-books or practice," and again, "this conception

of therapeutics points to the active intervention of the physician at a period in the history of the case not only before the time when the diagnosis is usually made, but even before the malady has become fixed in the tissues."

On page 107 we find the statement that "this method of treatment has been put to the test of clinical trial by thousands of physicians, not those leaders whose mastery of the art would carry their patients through with almost any method, but the rank and file of the profession in city and country alike."

The method as spoken of above is best exemplified in the treatment of acute pneumonia. It is as follows: Aconitine amorphous, half a milligram (1-134 gr.); veratrine, same dose; digitalin, one milligram (1-67 gr.), given together every quarter, half, one or two hours, according to the predominance of the acute sthenic symptoms; substituting strych. arseniate for the veratrine as asthenic conditions are manifested.

The author presumes that each agent, although of opposite physiological action, will be taken up by the tissue requiring its aid for the restoration of the physiological balance. We fail to find anything new in the administration of small and repeated doses of aconite, as this method was advocated by Ringer over a quarter of a century ago, and we would prefer clinical tests made by those "leaders whose mastery of the art" has made them known to us all, than take the statements of the rank and file, as we see them in some medical journals. W. J. W.

A Manual of Surgical Treatment. By W. WATSON CHEYNE, C.B., M.B., F.R.C.S., F.R.S., Professor of Surgery in King's College, London; Surgeon to King's College Hospital and the Children's Hospital, Paddington Green, etc.; and F. F. BURCHARD, M.D. and M.S. (Lond.), F.R.C.S., Teacher of Practical Surgery in King's College, London; Surgeon to King's College Hospital, and the Children's Hospital, Paddington Green, etc.; in six parts. Part V.: The treatment of the surgical affections of the Head, Face, Jaws, Lips, Larynx, and Trachea, and the Intrinsic Diseases of the Nose, Ear, and Larynx. By H. LAMBERT LACK, M.D. (Lond.), F.R.C.S., Surgeon to the Hospital for Diseases of the Throat, Golden Square, and to the Throat and Ear Department, the Children's Hospital, Paddington Green. London and Bombay: Longmans, Green & Co., 39 Paternoster Row. 1901.

The fifth volume of this work is over 100 pages larger than any of the previous volumes.

The same plan is followed in this as in the previous numbers, viz., just enough symptomatology, pathology, and diagnosis for a good understanding of the subject in hand, while the treatment comprises the methods found best in the experience of the authors.

The chapters on intra-cranial injuries and intra-cranial suppura-

tion and on the plastic surgery of the face and hare-lip and cleft palate are especially good.

A very interesting chapter is devoted to focal epilepsy and brain tumors.

Electrolysis is treated in a very practical manner by Dr. Arthur Whitfield.

In addition to the usual chapters on the surgery of the head, neck and face, 194 pages are devoted to the intrinsic diseases of the nose, ear and larynx, by Dr. H. Lambert Lack, of London, making this volume of especial value to the general practitioner, as it will give him all he will likely require in these diseases and take the place of a special work. There are 145 illustrations, which add very much to the value of the work, especially in the part devoted to plastic operations.

The high reputation of the previous volumes is well sustained, and we can heartily recommend the work to our friends. W. J. W.

Atlas and Epitome of the Nervous System and its Diseases. By PROFESSOR DR. CHR. JAKOB, of Erlangen. From the second revised German edition. Edited by EDWARD D. FISHER, M.D., Professor of Diseases of the Nervous System, University of Bellevue Medical College, New York. With 83 plates and copious text. Philadelphia and London: W. B. Saunders & Co., 1901. Cloth, $3.50, net. Canadian agents, J. A. Carveth & Co., Toronto.

Works upon the structure and diseases of the nervous system are numerous enough, and some of them cover excellently well the subject, but until the appearance of this volume there has been accessible to English readers no work which presented in concise, comprehensive and thoroughly modern form the structure, pathology and diseases of the nervous system, and illustrated its texts by lithographs and other illustrations of the very best modern type. Indeed, no approach to the perfection of illustrations found in this volume is available to the general practitioner in English or any other language. In the localization and study of nervous lesions it will be found most helpful, and while treatment is subordinated to other departments, it still received a satisfactory degree of attention. Without the least hesitation the work can be commended to all who have occasion to deal with diseases of the nervous system.

It is simply marvellous that a work so richly illustrated can, by simultaneous publication in many lands and many languages, be furnished at such almost trivial cost. N. A. P.

Encyclopedia Medica. Under the general editorship of CHALMERS WATSON, M.B., M.R.C.P.E. Volume VIII. Menstruation to Orbit. Edinburgh: William Green & Sons. 1901.

This volume contains no articles of more than ordinary interest. most of the subjects treated of requiring only brief notice. The

chief contribution is by W. Thorburn and R. T. Williamson, of Manchester, on injuries and diseases of the peripheral nerves. Reference is made to the epidemic of multiple neuritis occurring in the north of England during 1900, caused by the presence of arsenic in beer. Dr. E. S. Reynolds suggested the cause of the epidemic and first detected the presence of arsenic in the beer. Investigation discovered the contamination to be due to the use of sulphuric acid, containing arsenic as an impurity, in the preparation of the glucose and invert sugar used in the brewing of the cheaper kinds of beer. As a result of this discovery many of the physicians in the north of England argue that alcoholic neuritis is always due to some impurity and not to the alcohol itself, an opinion that our Scotch friends, in their loyalty to usquebaugh, are inclined to support.

Nestor Tirard writes an excellent, though rather brief, article on nephritis, and that on neurasthenia by Mrs. Garrett Anderson is clear and brief. F. E. Batten, of the National Hospital, London, contributes an excellent account of the various affections of muscles. Diseases of the nose are dealt with in ten articles by as many contributors.

Like its predecessors, this volume is also a credit to the publishers. A. M'P.

The Diagnostics of Internal Medicine. A Clinical Treatise upon the Recognized Principles of Medical Diagnosis, prepared for the Use of Students and Practitioners of Medicine. By GLENTWORTH REEVE BUTLER, A.M., M.D., Chief of the Second Medical Division Methodist Episcopal Hospital; Attending Physician to the Brooklyn Hospital; Consulting Physician to the Bushwick Central Hospital; formerly Associate Physician, Departments of Diseases of the Chest and Diseases of Children, St. Mary's Hospital, Brooklyn, N.Y. With five colored plates and 246 illustrations and charts in the text. New York: D. Appleton & Co. Canadian Agents, The Geo. N. Morang Co., Ltd., Toronto. 1901.

Of all the many medical books published by the different publishing houses every year, we fear that a large percentage of them are not by any means as practical as they ought to be. Too many of them deal largely with theory and pay by far too little attention to the practical side of the subject. The books the physician of to-day requires, indeed, must have, if they are to be of any great benefit to him, are those which, waving theory to a great extent to one side, deal with practice and what he in his busy career meets with every day. Dr. Butler's "Diagnostics of Internal Medicine" at once struck us as magnificently practical and something which must prove somewhat of an example to other writers in the manner referred to. It is full of what the busy doctor is hourly in need of, dealing at length with symptoms and their diagnostic importance. Dr. Butler's book is one we would recommend all in

need of a thoroughly practical book and one which will be a valuable addition to their library, to purchase, and purchase without delay.

La Cure Pratique de la Tuberculose. Par Dr. P. PUJADE, d'Amélie-les-Bains. Paris: Georges Carré et C. Naud, Editeurs, 3 Rue Racine. 1901.

Dr. Pujade has practised medicine for twenty years at Amelie-les-Bains, and having made a special study of tuberculosis of the lungs in the patients who visit that health resort, is in a position to speak with authority on the methods, climatic, nutritive and medicinal, most useful in the treatment of tubercular cases. He believes in the value of a life in the open air both as a means of preventing an attack of tuberculosis and also of overcoming that disease after it has effected a lodgment in the body.

The chief value of Dr. Pujade's book consists in his way of presenting to the reader his clinical observations. He has studied the consumptive sleeping and waking, has carefully noted the success or failure of certain drugs in controlling symptoms due to the tubercular disease, and expresses the results of his experience to his fellow-practitioners with sincerity and in a very readable manner. This book will be of considerable assistance to the practitioner who wishes to familiarize himself with the clinical aspect of tuberculosis. J. J. C.

A Text-Book of the Practice of Medicine. By JAMES M. ANDERS, M.D., Ph.D., LL.D., Professor of the Practice of Medicine and of Clinical Medicine, Medico-Chirurgical College, Philadelphia. Fifth edition, thoroughly revised. One handsome octavo volume of 1,297 pages, fully illustrated. Philadelphia and London: W. B. Saunders & Co. 1901. Cloth, $5.50 net.

Dr. Anders, in this edition, has brought forward the bacteriological aspects of disease as it is known up to the present date. He has formulated for the medical student and clinician nearly sixty diagnostic tables, which will prove a most beneficial edition. He has eliminated all prescriptions except those whose value is beyond question. This work is undoubtedly one of the very best text-books of the period, and cannot but hold one of the foremost places in the medical literature of the present day.

The Canadian Agents are J. A. Carveth & Co., Toronto, Ont.

A. J. H.

The Making of a Marchioness. By FRANCES HODGSON BURNETT. Cloth. Toronto: William Briggs.

A charming story of nobly-born English people, with love, of course, "for the theme of the song." A fitting trifle to find its place within my lady's boudoir.