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Original Communications.

PRESIDENT'S ADDRESS—"THE PASSING OF THE SURGEON" IN TORONTO.*

By F. N. G. STARR, M.B., TORONTO, Associate Professor of Clinical Surgery, Demonstrator of Anatomy, University of Toronto, etc.

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.

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,

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

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 martyr's 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 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 south-east 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. may be interesting to mention that James Street gets its name



DR. CHRISTOPHER WIDMER.

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 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, 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 good 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. served during the Peninsular war as surgeon to the 14th Light Dragoons, and came to Canada with his regiment during the Settling in York (now Toronto) about 1815, he war of 1812. took up his residence 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 where 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, yet if he suspected some well-todo person of trying to obtain his services gratuitiously, 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:



DR. JOHN ROLPH.

"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. 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 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, recall, in some degree, the countenance of Dr. Widmer."

Peter Deihl was born in 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 a quiet, pleasant manner, 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 residence on Lot Street, near where the Canadian Institute now stands. 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, Ontario, 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 William Lyon Mackenzie.

In many ways he was a remarkable man. Finding medicine too circumscribe! he became a barrister as well, and it is said



DR. WM. CHARLES GWYNNE.

that at one time he turned his attention to divinity and con-

templated taking orders.

He was closely associated with Wm. Lyon Mackenzie in the rebellion of 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 am., 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 "Barts," and was a dressing pupil of Abernethy. He came to Canada in 1841. In 1843 he was appointed Professor 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 was to be done, and for many years after 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



DR. EDWARD MULBERRY HODDER.

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 (5½ 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, Eng and, and to many other collections.

During the Fenian Raid in 1866 he had charge of the

hospital for the wounded at Port Colborne.

In 1865 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.

William 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 oftentime 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, a careful surgeon, and when he formed an opinion he held to it with bull-dog tenacity. An instance is related of a young man who in a midnight 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 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.

James Acland 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, returning 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 on 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.

^{*} Dr. Reginald Henwood, of Brantford, Ont., was the first to perform an ovariotomy. Dr. Bovell was some little time after, as was also one in Montreal, by Dr. Trenholme, -Eo.



DR. JAMES H. RICHARDSON.

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 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 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. medical studies he pursued in London, Dublin and Edinburgh. 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 know age 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 are inscribed the date of his death, and these words, 'Having practised his profession 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's 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 Bay companies: he died at Toronto, October 12th, 1892. He entered King's College (now University of Toronto) in 1843. Afterward he took post-graduate work at "Guy's," and at King's College, London. Returning to Toronto in 1849, he began practice.



DR. WM. THOMAS AIKINS.

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 picture now on the screen 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 was born at Burnhamthorpe, Ontario, in 1827, and died at Toronto, May 24th, 1897. 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 toward 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 leading 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, as many were then doing, for antiseptic surgery was yet in its infancy, and grant 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 the Toronto General Hospital. For many years he

was Surgeon to the Central Prison.

He devised and used the hoop iron splint for fractures of the humerus⁶; 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



DR. LACHLIN MCFARLANE.

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, then another, until all the blood was again in The patients recovered more quickly from their anesthetic, and there certainly seemed to be less shock. 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 I would linger longer only I fear that I have men of the time. 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.

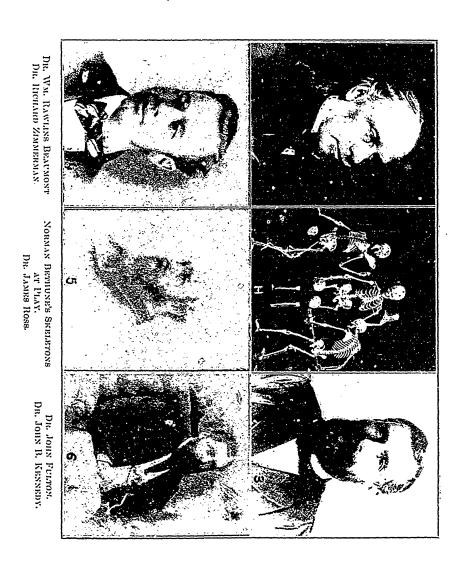
During the civil war in the United States he was appointed surgeon to a corps in the Northern Army, and was present at the battle of Antietam. In 1867, during the Fenian Raid, he

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 6,777 cases of midwifery in private practice. An accurate record of these was kept, and they have since been analyzed and published by his sou. He performed many of the major operations, such as amputations, lithotomy, paracen-



tesis thoracis for empyema, and had considerable experience in the treatment of fractures and of gun-shot wounds.

Hs 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.

Laughlin 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. 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 pres-Socially, he was "full of fun" and made many warm friends, while by his patients he was held in affectionate 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 Gounty, 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 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 Trivity College. After entering medicine he became clinical assistant to Dr. Joseph Workman at the Asylum for 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 1876 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 "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. 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 Laltimore, 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. William Canniffs "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 relations 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, Mac-Lure; I am proud to have met you; you are an honor to our

profession."

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- 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.
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VALUE OF EXAMINATIONS OF THROAT-SWABS AS A TEST OF FREEDOM FROM DIPHTHERIA.*

Br JOHN A. AMYOT, M.B.

Diphtheria is the manifestation of the reaction of the tissues to the toxins of the diphtheria bacillus. These toxins are developed by the bacilli during their life history. They can be produced outside of the living body in proper culture media. Within limits more toxin is produced the more oxygen is supplied. Other circumstances have like effect. These toxins can be separated from the bacilli and produce symptoms like those produced when the bacilli were present in the tissues, except we have the case under control when injecting the toxins alone. At the same time that these toxins are reacting in the tissues antitoxins are being produced. When this substance is produced in sufficient quantity to neutralize all the toxin that has gotten access to the body, the disease comes to an end. But in some cases before this neutralization has taken place, so much toxin has been produced, and has acted so deleteriously on the tissues that the patient dies. The tissues of the important organs have been so damaged that their protoplasm has been so changed to something else that life cannot go on. treatment of this disease by the use of antitoxins, when its use has been long delayed, we often come on the scene when too Irreparable damage has been done. We may neutralize the poison there; but in spite of this last the case is fatal, too much protoplasm has been changed into something else Therefore the necessity of commencing at the earliest possible time with the treatment.

Of people living in cities and ordinary communities, and looked on as being in good health, about I per cent. probably have the bacilli of diphtheria in their throats. This percentage has been gotten as the result of examinations made under the direction of a committee of the Massachusetts Association of Boards of Health. They have asked the co-operation of bacteriologists in various parts of the United States and Canada. The examinations were to be made from the throats and noses of people not exposed to diphtheria and in the ordinary acceptation in good health, and to be taken from as many varying sources as possible. So far over 6,000 cultures have been reported, and out of these about I per cent. show the presence of the diphtheria bacilli.

^{*} Read at the Executive Health Officers' Association, Brantford, June, 1901.

Dr. Hill, of Boston, examined a series of people who were in good health, but who had been in contact in one way or another with diphtheria patients; in other words, they were exposed people, and these showed 14 per cent. to have the diphtheria

bacilli present in their throats.

Diphtheria bacilli do not at all times produce toxins. ditions are not always identical for them. Very little variation in circumstances will make an at present non-toxin-producing bacillus a virulent toxin producer. Again we have in us a something that hinders or renders inert the activity of the toxins of bacteria generally. There is no exception in the diphtheria bacillus. The animal body can neutralize the toxins to an extent and can kill the bacilli to an extent also. No disease is produced, or rather no symptoms are manifested, until this barrier has been broken down. "The disease diphtheria is there only when," as Hill has clearly expressed it, "the body shows a reaction to toxins formed by the diphtheria bacillus, after giving the definition of any specific bacterial disease "as the reaction of the body to that portion of the specific bacterial toxins which the body fails to neutralize or eliminate."

The bacilli that are doing no apparent harm to the individual carrying them may easily do a good deal when they get more favorable ground in another subject. But in the great majority of cases we are as medical health men quite helpless with these so-called well people harboring diphtheria bacilli. But things are different with reference to convalescents from diphtheria. These cases are more or less under the control of some medical official. There are two ways of controlling their infectiveness to the general public. One is to isolate them for a stated time. The other is to release when they are free of the bacilli of diphtheria. Thirty days is the time, taking an average, that it has been the custom to hold the infected subject in quarantine. Now it has been shown by bacteriological examinations extending over thousands of cases, that some are free in ten days, some in fifteen or twenty days, and some are still not free from them even after seventy or even eighty days. One case in Copenhagen showed them continuously present for two whole years. From this it can be easily seen that those free, and they are a large percentage, before thirty days are subject to a real hardship as to time—this confinement hindering their proper convalescence, when freedom and what this can give is so important in recuperation. It has been found again that after the thirty days about 30 per cent. of the cases still harbor the bacilli. These though carry bacilli that in all probability, and we are not so sure of this, are not harmful to the subject carrying them, are in a great many cases, especially in children returning to school, using common drinking cups,

trading gum and sharing each other's apple treats, etc., decidedly dangerous to those about them. These, even though not virulent, may from changed environment prove so, on new ground. The thirty-day quarantine is too short for this 30 per cent in the interest of public health, and is too long in the interest of the great majority of the other 70 per cent. of the cases. Some other method is clearly indicated. If we are dealing with the individual, if his throat is clear and in a healthy condition, then let him go.

A test for the virulence of the organisms has been suggested. This has its disadvantage. First, at the time of making the test, and this takes at least ten or twelve days. From the time of taking the organism from the throat to the completion of the test in the experimental animal, the organisms remaining have had plenty of time to redevelop virulence, and even if it did not it might on being presented to a new individual. Again, the guinea-pig, which is used in these experiments, is not a human animal, and judging from analogy between different animals this is dangerous ground to tread. The difficulties and the uncertainties are too great to make it of much value.

There is left for us, it would seem, the absence of the bacilli only to feel safe from. And here we have difficulties too. The most important one is the difficulty of being sure that we have a true sample on our swab of the bacilli in the throat, or from the point of lesion, of the patient. When well-taken swabs have been obtained at one hour intervals from throats, it has been found that some of them did not show the bacilli, whilst the great majority of them did. Dr. H. Winslow Hill has found from the examinations of thousands of cases that about 30 per cent. of the cases showing a negative result on the first examination still harbored the bacilli of diphtheria. And they have adopted in Boston, and a number of other boards of health have fallen into line, the regulation of requiring that the patient show a negative result on two consecutive days, when as small a percentage as 0.5 only then are let go still with bacilli. other difficulty that presents here is the great number of varieties that the bacillus of diphtheria shows as found clinically. Dr. Wesbrook's valuable work, extending over some years, and covering thousands of cases as well, has demonstrated nineteen varieties, and to these might be added the twentieth in the shape of a branching form as pointed out by Hill. Sometimes one, sometimes two, sometimes even ten of these are found in a single clinical case. In pure cultures of one variety others are frequently found to appear. When separated out their virulence varies, the larger forms showing the greatest virulence, the smaller ones the least to no virulence at all. Clinical cases are often observed to commence with the large ones, and to end

with the smaller. Much work yet remains to be done in reference to these. For the time being our safest plan is to look on all of them as virulent, or, if not virulent, capable of developing virulence and thus doing harm, and to keep in quarantine all cases showing any of them.

The average time of isolation where this plan has been adopted has been twenty-five days, thus saving on the whole five days on the old plan, besides letting those out in ten days that show absence in that time, and keeping those in seventy days who do not show it until then. Justice to all and the greatest possible safety at our command to the general public results.

THE TREATMENT OF ABSCESSES IN TUBERCULAR BONE LESIONS.

By CLARENCE L. STARR, M.D., TORONTO,

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It is now ten years since the Society has discussed the treatment of the so-called abscesses in connection with tuberculous lesions of bone. A careful perusal of the discussion which took place at that time does not leave any clear conception of the plan of treatment most likely to prove efficient, as numerous methods are advocated by different men. It is with a view of getting a more recent and, if possible, a unanimous expression of the Society, for the benefit not only of the members of the Society, but also for the students who look upon the transactions as an authority, that this paper is presented.

It is within comparatively recent years that the nature of the cold or chronic abscess has been accurately known. The condition might possibly more properly be called a tuberculous cyst than an abscess, as there are none of the cardinal points of

inflammation present except the swelling.

In the commencement, a tuberculous nodule forms in the soft part adjacent to the bone lesion from an extension of the tuberculous process. After infection, these soft parts go through the same process of caseation and liquefaction that takes place in the bone. Thus a cavity is formed with liquid contents and a distinct wall, which has been long recognized as the pyogenic membrane. The wall is the most important part, as in it, in the outer part, are contained bacilli and the resulting gray tuberculous nodules. The inner portion of the wall is in process of

disintegration and, like the contents of the cavity, is comparatively inert, containing few, if any, bacilling. The growth of the abscess is in the line of least resistance and this being in the connective tissue structures, vessels and nerves or any fibrous The abscess burrows, structures are rarely attacked. the weight of its contents, downwards, infecting the soft tissues as it goes, and thus carries the tuberculous disease into distant parts, rendering the treatment of the diseased soft tissues harder than that of the original focus. In order successfully to get rid of the infection it is seen to be necessary to clear out the wall of the abscess, which contains the possibility of re-infection, as well as to evacuate the liquid contents. The various plans of treatment, as outlined in the discussion of the Society and seen in most text books, may be classified under the following heads:

1. To leave abscesses alone—the so-called expectant treatment.

2. Aspiration.

3. Aspiration with injection of antiseptics.

4. Incision with drainage.

5. Excision.

When the diseased bone from which an abscess originates is properly protected and put at rest, absorption of the fluid contents does sometimes take place, leaving a caseous mass with a fibrous capsule which may ultimately become entirely fibrous or calcareous, and result in cure. One undoubtedly finds cases in which it is the part of wisdom not to interfere in a radical way. Such might be a deep-seated abscess of the spine that is giving no symptoms, and others which with proper supporting treatment are diminishing in size. One may delay operative treatment also to get a more favorable point of exit, it being perfectly right to allow a psoas abscess to work down the thigh so as to open it away from the groin, and thus run less risk of infection. Under no circumstances should an abscess be left when the skin is becoming reddened from tuberculous infiltration, as it will refuse to heal if incised, and will ultimately break down unless completely excised.

Aspiration can serve no good purpose in the treatment of abscesses, as only the fluid contents which are comparatively inert, can be withdrawn, and that only with a good deal of patience and dexterity to prevent plugging of the needle with caseous material. The wall is still left to continue the formation of the pus and the infiltration of further soft tissues, and there is grave danger of the tract of the needle becoming infected with tubercle and a sinus result.

Injection with antiseptics after aspiration is open to the same objection, as one cannot hope to inject a sufficiently strong antiseptic to destroy the wall without getting serious constituional disturbances.

The common reply one gets from a student to the question as to treatment is to "incise and drain." This, to my mind, is a most dangerous doctrine, and yet it is the most prominent in nearly all text books, even on orthopedic surgery. remember the long months, and sometimes years, of treatment of discharging sinuses due in large measure, the writer thinks, to drainage tubes. If it were possible to open an abscess in a good location to drain well, under strict aseptic precautions, and have it drained and dressed carefully for a considerable time, one might possibly expect a cure, but it may be safely said that scarcely a single case of tuberculous abscess opened and drained with tubes escapes infection with true pyogenic organisms, the streptococci or staphylococci. A child thus infected is infinitely worse than before, and in cases of psoas abscess runs extreme risk of septicemia and death. So I think I am safe in making a positive statement, at least I so infer from my experience, that it is never wise to incise and drain an abscess except in urgent cases, such as when in spinal abscess dyspnea is present from pressure on the vagus or bronchi, or other pressure symptoms, require immediate relief.

The method advocated by Dr. Watson Cheyne, of complete excision of an abscess wall and contents entire, is theoretically all that could be desired, but practically its application is limited to certain locations. It can only rarely be used in spinal abscesses, but may be most useful in some abscesses of

the thigh.

The most practical and the most successful method in the hands of the writer has been that of free incision, inultiple if necessary, with careful scraping of the wall of the abscess with

a spoon and complete closure of the wound or wounds.

The incision should be as free as possible, the wall scraped carefully and systematically around all sides, as one would scrape a uterus for disease of the endometrium. If any vessels or nerves are near that might be injured, that portion of the wall may be efficiently curetted with a swab of iodoform gauze on an artery clamp.

One might expect a general infection following such an operation, but if the incision is free so as to allow the escape of all *debris*, and a flushing spoon used, such as devised by Barker, with sterilized water or weak sublimate solution, no

infection is likely to take place.

After as thorough a scraping of the wall as is possible, the whole cavity may be swabbed out with pure carbolic acid, followed by alcohol, to destroy any remaining bacilli or ubercles.

The incision may be then completely closed, and a firm dressing applied. In nearly all cases there is primary union, the walls becoming glued together, thus obliterating the cavity.

A. H. Tubby, in a recent number of the British Medical Journal in advocacy of the open method of treatment of spinal abscesses recommends the flushing of the cavity with sterilized water, followed by a solution of menthol as used by Robert Jones, the formula being: menthol, one drachm; rectified spirit, one ounce; glycerine, eight ounces. This should, according to Tubby, be rubbed into the edges of the incision to prevent infection of skin and subcutaneous tissue. The method has proved most successful in my hands, and in the hands of some of my colleagues in the Hospital for Sick Children. of my cases, some twenty-five in number, during the past year have been treated in this way, with very satisfactory results. If the bone lesion from which the abscess originated is still active and the tissue still being broken down, of course the abscess will recur, but the same operation may be repeated several times if necessary, and in my experience, will ultimately Thus you never have at any time foul discharges about the patient, you have no continued dressing, and small risk of septic infection and amyloid disease.

In the course of treatment of the wall of the abscess, whereever possible the bony focus should be sought for, scraped, and any sequestra removed. It does not necessarily follow that because all the tuberculous wall is not removed that the operation will be a failure. We know the recuperative power of nature, and if we remove the bulk of the diseased tissue the phagocytic power of the leucocytes will clear up the balance. This should not deter one, however, from removing as much

tuberculous material as possible.

This plan of treatment is applicable in a general way to abscesses in any location, but a word or two may be said about

the treatment of special cases.

In the cervical region abscesses should not be opened by way of the pharynx, unless urgent dyspnea is present, on account of the possibility of mixed infection. All lateral cervical abscesses should be opened in the posterior triangle immediately behind the sterno-mastoid. In the dorsal region above the eleventh vertebra, abscesses may be located in front of the spine, displacing the aorta and esophagus, or making pressure on the vagus or bronchi. These may rupture into the lungs or pleura or may work out between the ribs, or may pass down through the diaphragm. Those in front of the spine may be treated by expectant plan if symptoms are not urgent, but if interference is necessary a portion of rib and transverse process must be excised, and the abscess evacuated in this way. Abscesses in the last dorsal or lumbar vertebræ will follow the sheath of the psoas muscle and rupture the sheath just above or below Poupart's ligament, filling the iliac fossa and burrowing down into the thigh or up above the crest of the ilium into

the lumbar region.

The treatment should be by free incision, multiple if necessary, as far away from the groin as possible, with scraping of the wall, care being taken to avoid the posterior wall where the iliac vessels are situated, afterwards swabbing with iodoform gauze. It may be necessary to make an opening in the lumbar region as well, to entirely evacuate the cavity. A strand of gauze can be carried between the two openings and the cavity thoroughly cleaned in this way, afterwards closing both wounds.

Society Reports.

TORONTO PATHOLOGICAL SOCIETY.

Minutes of Meeting of October 26th, 1901.

The President, Dr. Rudolf, took the chair at 8.30 p.m. The minutes of the last meeting were read and confirmed.

PRESIDENT'S ADDRESS.

Gentlemen,—It is a time-honored custom of societies such as this that the President should, on first assuming his duties, give an address. The knowledge of this fact did much to mar the pleasure which I felt when last spring you did me the great, and to me quite unexpected, honor of electing me to this chair. A strong sense of my unworthiness for the position weighed, and still weighs, heavily upon me, and this is increased when I think of the men who have preceded me here, and of others who could do so much better than I.

But the fact remains that I am your President for the current session, and it is a great comfort to me that we have such a strong list of office-bearers associated with me, and I hope that with their assistance, and with that of every member of the Society, the work of this session will in quality quite equal or even surpass that of any previous one.

By way of becoming acquainted with the previous history of the Society, I have gone through the minutes of the meetings since the Society was organized twelve years ago, and what has struck me most has been the immense amount of good work that has already been accomplished by the members, and of what great service the Society must have been to those who

have regularly attended its meetings.

In thinking over possible material for this address my mind passed in review various themes which might prove of interest, e.g., the recent advances in pathology; pathology now as compared to what it was at various previous dates, and so on; but with an audience like this I felt that I would be merely in an indifferent manner repeating what everyone knew. The pathology of the ancients seemed a good subject, and really it is marvellous how many modern discoveries were foreshadowed many centuries ago. Thus Marcus Terentius Varro, the greatest of Roman savants, who lived about a century B.C., mentions "minute creatures invisible to the eye, which penetrate through the mouth and nose into the body, and occasion

diseases of a severe character." What a bacteriologist he would have made if he had not been born so soon! What was the humoral theory of disease, with the treatment of purging and bleeding based on it, but a crude way of expressing the condition of toxemia, about which we talk so much nowadays?

The ancients used to say, when severe fevers broke out amongst their marching armies, that the enemy had poisoned the wells along the route. Their acumen led them correctly to attribute the disease to drinking water; and probably the enemy did frequently poison the wells, although not in the

deliberate manner suspected of them.

This subject of ancient pathology was a most entrancing one, but after all not of much help nowadays, except as an antidote to modern conceit, and even if such a dose should be necessary here, far be it from me to administer it on, so to speak, my first visit. Finally, I came to the conclusion that the few minutes at my disposal might be most usefully occupied in discussing the general working of this Society, in seeing whether it would not be possible to make it even more useful

than at present.

And first of all a point which strikes me in studying the Minute Book, is the number of by-laws which have been enacted from time to time, which are certainly dead letter laws to us nowadays. For example, By-law XXVIII saysthat "Any member of the Society who shall be absent for more than two consecutive meetings, without assigning any reasontherefor, shall be dropped from the roll." Now, if this rule were enforced nowadays, it would sadly thin our list of members. Certainly the punishment does not fit the crime. By-law XIV as amended in June, 1890, reads that "The regular meetings of the Society shall be held on the last Saturday of the month from September to April inclusive." And yet of the eleven sessions of the Society since then, two have commenced in September, and nine, including the presentone, in October. I think that these two examples, and thereare many others, suggest that the time has come for a thorough revision of our by-laws, and I would propose that at the end of the session, at the annual meeting, to be held I presume in May, we thoroughly do this work and then have copies of the by-laws printed.

Again, as regards the by-laws, an idea seems to have become prevalent amongst the profession that in order to become eligible for election as a member of the Society, a candidate must present a communication to the Society which must be up to a certain standard—in fact, he pass a species of examination. This idea dates back at least seven years, for I find in the minutes of the meeting held in May, 1894, the following awe-

some note: "The acting secretary was instructed to notify Dr. — that his thesis was awaited by the Council." And what is strange to me is that the dilatory candidate evidently did obey the order, as his name is still on our list of members. I well remember the occasion when Dr. Bingham and I (and I am sure that Dr. Bingham must have an equally vivid recollection of the event) appeared before the bar of this house, so to speak, and read such communications and afterwards sat in nervous suspense while our fate was being decided. We were both elected, fortunately, but imagine our feelings if we had been rejected!

Now, this test, the very thought of which is, I believe, sufficient to keep away many men who would otherwise join us and be valuable additions to the Society, has, as far as I can

ascertain, no foundation whatever in the by-laws.

The rules on the point, as amended on June 30th, 1890, and again in 1896, read thus: "Every candidate for membership shall be nominated by at least two members of the Society, and the nominations, made in writing, shall contain a report of the candidate's qualifications and fitness for membership, as well as a report of any research or of any study which he may have pursued in pathology." And again, "Any person who has conducted a research in human or comparative pathology, or who has been engaged in pathological work, or who has promoted the study of pathology, shall be eligible for election." Nothing here about the necessity of reading a preliminary paper before the Society! There are three classes of men who might become members according to the by-laws, but not according to this custom which has somehow or other crept in.

The first are young practitioners who may have shown peculiar aptitude for pathology whilst still students, and hence could fairly be described as having been engaged in pathological work, and yet at the time that they desire to become members, they have no case on hand to work up into the communication at present demanded of them. They thus put off their joining and may never join—at the best they lose the benefit of one or more sessions just when they are best able to appreciate

such.

The second class of men are those who have been in practice for years in Toronto, and have given ample proof of their merit by work of a pathological nature presented at other societies or in the journals. Such men are certainly eligible for election under the existing by-laws without their having to present a communication, which they might very naturally object to do if there was the least suspicion of an examination odor about it.

The third class are those men who have done good work elsewhere and came to Toronto as strangers. According to the

by-laws the two members who nominate such a one have only to mention in their nomination the work or study in pathology which the candidate has done, e.g., quote references in journals, etc. We have no right to demand a preliminary communication from him at all, but proceed at once to his election.

The question naturally arises here whether we want a large membership. Is it any advantage to have meetings of fifty or

more instead of fifteen or less?

I for one think that the larger our membership is the better for us in every way. A large attendance is a stimulus to good work, and the result would be a more careful preparation of communications.

Further, we would have a larger amount of money at our disposal and hence might be in a position to publish our transactions in full. By-law XXVI states that this should be done annually, and I am sure that if we can manage to do so the

work would be a very valuable one.

The idea of enlarging the Society is not a new one. In 1891 the late Dr. Graham (to whose rare energy this Society owes so much) proposed that the meetings should be thrown open to the medical public, who were not, however, to be permitted to take part in the discussions, and we know how much the occasional open meeting held about Xmas time is thus appreciated. But it seems to me that it would be even better to enlarge our membership and then, as I have said, we would become richer. It has been suggested that we do not want members who are not keen on pathological work, but I do not think that any who are not keen on the subject in hand will turn out on winter nights to clog our meetings. No! they will stay at home, but our indefatigable Treasurer will be after them all the same! The Philadelphia Pathological Society consider as eligible for election to their membership all properly qualified medical men, and the London Pathological Society have recently done the same.

When this Society was founded, its avowed object was "the promotion of pathological science," and a better definition of the proper function of such a body could not well have been

given.

The London Pathological Society at first limited their members to the showing of specimens with accompanying remarks, and especially barred discussions upon abstract points. A few years ago, however, they found it necessary to alter this law so as to admit of discussions that were valuable although abstract. And surely this was right, if they were to line up to their name! "Pathology," as Dr. Pye Smith said in an address at Reading in 1898, "is not merely morbid anatomy, but the inquiry into the natural history of disease, the relation of cause

and effect in disordered bodily processes, the disturbing action of mechanical agents, of heat and cold, of poisons and parasites in human physiology." A Pathological Society should not, I contend, be merely one of morbid anatomy, but also of morbid

physiology.

A woman dies of hysterical anorexia. Surely a careful and concise description (shorn of all unnecessary detail) of her long suffering is a fitting subject for the consideration of a Pathological Society. No gross or even histological changes may be found at her death—no morbid anatomy, in other words, although too much morbid physiology. But the very negative result of the post mortem examination is of the greatest interest, and far more suggestive to the thoughtful mind of fields yet unexplored than is a "good specimen" of hob-nailed liver shown for its smallness, or a ponderous lipoma shown merely on account of its ponderosity.

"It is a great mistake," writes Dr. J. F. Payne, "to look on all that occurs during life as clinical and only that which is

observed after death as pathological."

It seems to me, in fact, that we cannot draw any line between the pathologist and the clinician. Both endeavor to find out where and how the patient deviates from the path of what we call health, but the one conducts his investigations during life while the other begins where the former ceases. They are both studying pathology—"the doctrine of sufferings or diseases."

The clinician is like a person watching a battle, he hears the thunder of the guns, sees the charges of rushing troops of horsemen, and amidst all the whirl and horror and blinding dust finds it hard to say exactly what has happened, whence came the fire that so withered the troops in front of him, what caused the one side at last to give way and take refuge in hasty

flight.

The morbid anatomist is the observer who next day comes wandering over the now still scene; he investigates the direction from whence the murderous fire must have come, counts the dead, measures the entrenchments and in every possible way tries from the facts before him to picture the scene of the day before. His description of the battle will be as incomplete and often as erroneous as that of him who watched it. Neither will have a thorough idea of what happened and it will be best if they compare notes, the one explaining one point and the other another, and thus they will arrive at the most perfect knowledge of the battle possible.

If you will kindly pardon this very war-like simile, I think it illustrates the close relationship which should exist between clinical and post mortem work. Every case that comes to the

dead-house should have as complete a clinical history as possible, carried right up to the time of death, and then only are we able to appreciate to the full the results of the sectio. It is of little or no value for the clinician merely to send his diagnosis, as is done in some places; who cares whether Dr. So-and-so is right or wrong in his opinion of the case? What we want to know is what symptoms and signs existed before death, and then what produced these phenomena. Of course much may be learned from post mortems performed on persons of whom there is no clinical history; good collections of rare conditions may thus be accumulated, but such work is on a par with collecting old china or scarce postage stamps, and has a very limited horizon.

And, in passing, I may remind you of how many physical signs may be demonstrated on the cadaver before the knife is taken in hand at all, and these are of great value as they are immediately verified.

When the student of disease constantly sees certain symptoms occurring during life associated with certain post mortem findings, then when he comes across these symptoms in his patients he will be able to call up a vivid mental picture of the pathological condition present—in other words he will tend to interpret his clinical facts in terms of morbid anatomy and physiology.

In some teaching centres the professor of pathology is also a clinical teacher, thus welding the two departments. The science of pathology has grown so enormously that such a dual position might not now be advisable, but although one man cannot now combine both branches successfully and yet find time for purely original work in either, let us never cease to remember

that the two are parts of a whole.

In studying diseased processes in man the clinician, bearing always in mind his chief function, must disturb the natural course of the processes by treatment, and it follows that where he is most successful he learns least. But a field is open where we can study many conditions of disease undisturbed by this factor, and may at any time find what state really exists. refer to the department of experimental pathology. In this country, where no anti-vivisection laws exist, we have a free field for this kind of investigation, and I should like to see many more communications of this sort presented here. Those junior members especially, who sometimes complain that they have no cases from which to prepare the two communications which are demanded of them by By-law XXIV, can readily obtain such at the cost of a few dogs, rabbits or guinea-pigs. In these, by mechanical, thermal, chemical, or infective means, they can set up a great variety of diseased conditions of the very greatest interest.

Now, lest I weary you, I will stop, and lest I have been involved I will summarize what I believe (and this belief is shared by all the members of the Executive) will be for the best carrying out of the original object of the Society, "the promotion of Pathological Science."

1. Revise our by-laws up to date and have them printed.

2. Increase our membership by getting as many desirable men as possible to join who are fairly eligible under the existing by-laws.

3. Publish our transactions.

4. Use our influence as a Society in urging a closer connection between clinical and post mortem work.

5. Encourage the study of experimental pathology.

And lastly, in the conduct of the many vigorous discussions which I trust we will have during the present session, let us wholly respect truth and reason and largely mistrust authority.

Unusually Large Urinary Calculus. - Dr. G. A. Peters.

The specimen presented is a urinary calculus of unusually large size. Its circumference in the longest diameter is $7\frac{1}{2}$ inches; in the shorter diameter, $5\frac{3}{4}$ inches. It is of a fairly symmetrical oval shape, being slightly larger at one end than the other. Its weight at the time of removal was 6 ounces and 230 grains. After drying, the specimen weighed a little less than 6 ounces.

The host was a farmer, Mr. A., otherwise strong and healthy, aged 39. He had been the subject of symptoms of stone in the bladder from the age of about nine years. At times it produced much pain, but latterly the symptoms had largely subsided, and he really suffered but little. This was explained at the time of operation by the fact that the stone had become partially en-

cysted and thus was immovable in the bladder.

The stone was removed by suprapuble cystotomy on the 1st June, 1901. On opening the bladder the stone was found with its large end upwards and its smaller end embedded to a slight extent in the fundus of the bladder behind the prostate. The wound in the bladder wall was made large enough to remove the stone without very much laceration. After removal the bladder was flushed out and stitched up with two rows of chromicized catgut sutures. The method employed for distending the bladder before operation was that advocated by Greig Smith, and after stitching up the incision the bladder was tested for retentive power by allowing it to become distended through the catheter. A tube surrounded by a layer of gauze was used for drainage down to, but not into, the bladder. The patient had no bad symptoms whatever, and the bladder wound healed by first intention, so that at the end of

ten days there was no leakage whatever. But shortly after this, however, a very small leakage occurred and persisted for a few days, ultimately healing, however, and leaving a good healthy retentive bladder.

On section the stone proves to have been in the first instance an oxalate of lime calculus. There is a nucleus of very firm laminated dark-brown exalate about 3 of an inch in diameter and bounded by a very dark crenated line of the same salt. Outside of this is another layer 3 of an inch in diameter, showing oxalates apparently of very much looser formation, with striæ radiating towards the centre. Had the stone been removed at this time it would undoubtedly, from its appearance, have proved to be a typical mulberry calculus. On the outside of this central oxalate portion is a laminated crust varying from half an inch to an inch in diameter, extending to the circumference and consisting probably of a mixture of urate of ammonium and phosphates. The X-ray photograph of the stone shows these laminæ most markedly, with various spots which are found on section of the stone to be probably due to the more dense phosphatic substance which is found irregularly distributed between the laminæ.

Method of cutting calculi.—The following is an original method of cutting stones of all kinds, hard and soft, which the author has found to be of great use and of equal simplicity:

The stone is first of all dipped for a moment into melted paraffin wax. This gives it a very thin coating of the wax, and prevents the sticking of the plaster-of-Paris in which it is As a means of holding the stone absolutely to be embedded. still while it is being sawn, the aid of a horseshoe, as shown in the accompanying preparation, is brought into use. The horseshoe is placed upon a board with its middle exactly over a line This line is previously drawn longitudinally along the board. to serve as a constant fixed indication of the centre of the stone. The heels of the horseshoe may be tilted up by means of a short board placed crosswise under the shoe, so that they will about subtend the centre of the stone. The horseshoe is then nailed firmly into position on the board. The stone is now taken in the hands of the operator and carefully centralized opposite the line drawn on the board. Plaster-of-Paris cream is then run around it and over it in such a way as to embed the stone completely to the extent of not less than half an inch of covering at any part, and in such a manner that the embedding plaster also embraces the heels of the horseshoe. This is then allowed to set firmly, and if it can be left for several days until it is thoroughly dried so much the better, as it is found that the saw works more easily in thoroughly dry plaster. After sawing the stone directly through the plaster which em-

beds it, a second section is made through the plaster between the stone and the heel of the horseshoe. This section can then be readily lifted out, and the corresponding half of the stone cut or lifted out of the embedding plaster. The removal of the stone from the plaster is facilitated by plunging the whole into hot water for a few moments, when the paraffin wax becomes softened and the stone can be easily lifted out of the plaster. The wax is then melted off by holding under a hot-water tap, or putting it into a basin of hot water for a few moments. The surface of the stone may then be polished rapidly and easily by grinding it on a ground-glass surface. In the case of very hard stones the polishing process is facilitated by using powdered pumice stone or emery. In order to get a good polished surface, the stone should finally be rubbed dry on plain glass, and later on some woollen fabric, which will bring up the polish of the stone.

Dr. Rudolf asked if urate of soda was usually darker in

urinary stones, because in senoliths it was white.

Diffuse Hemorrhage into the Meninges of Brain and Spinal Cord, associated with Albumenuria and Glycosuria.—Dr. H. B. Anderson.

Patient, woman, aged 28, domestic; mistress returning home found her insensible; removed to Grace Hospital, comatose, and died next day without having regained consciousness. Post mortem report showed straining on the dependent parts. On right forearm were seen livid spots, some on back of the hand, one below inner condyle. Blood froth in nostrils. Mammæ pendulous. Abdomen prominent with striæ. One para. Goitre fairly marked. On surface of left kidney cysts were found. Uterus contained a fetus of about 31 months. Hemorrhage diffuse into pia-arachnoid the same in cord through its entire length. Left lateral ventricle contained blood. Bacteriological examination of the blood from the livid spots gave Urinary analysis—urine removed p.m., sp.gr. no growth. 1028, ac. sugar 1 3/7 per cent. acetone, also trace of albumen. Casts granular, hyaline and epithelial. Kidney showed paren-chymatous and interstitial nephritis. There was no poison chymatous and interstitial nephritis. which could produce such profuse hemorrhage. Appears to be due to toxemia.

Discussion—Dr. McPhedran asked if there was any evidence of rupture of blood vessels or of hemorrhage from any small vessels.

Dr. Parsons asked if livid spots looked like clearing up of purpuric spots, or was there a suspicion of scorbutis. What was the condition of the gums?

Dr. J. J. McKenzie asked if capillary hemorrhage was to be

considered.

Dr. Peppler asked as to the contents of the stomach and chemical analysis.

Dr. McIlwraith, by invitation of President, took part in the discussion, and asked if there had been any necrotic area in the liver or other organs found.

Dr. Primrose suggested that after injuries homorrhage does not occur precisely in injured locality. He stated a case in point. Also hemophilia might be cause.

Dr. Fotheringham—Could coma be due to diabetes? uremic?

or coma due to hemorrhage only?

Dr. Rudolf asked as to goitre, was it cystic or of vascular variety?

Reply—There was no evidence of ruptured vessels. No suggestion of scurvy. Had never read of such a condition in scurvy or hemophilia. Stomach contained no erosions or ulcers. No external injuries to head suggesting violence. It was too general and the cord was involved. Goitre was cystic. There was a medico-legal inquiry.

Notes on Blood Pigment.—Dr. J. J. McKenzie.

He said hematoidin had been identified as bilirubin. Hemosiderin was iron holding. In a case of cancerous cachexia, hemosiderin granules were found in the liver. Phosphates were found absent. The extraction of iron by acids took hours, leaving granule present, hence organic accretion remained after the extraction of iron. In a case of brown atrophy of lung, what was called hemosiderin gradually disappeared under extraction by acids, showing a difference in the granule in liver and lung.

Dr. Peppler's Specimen of Cast Ureter Passed Through a Silver Catheter.

Discussion.—Dr. E. E. King asked if a microscopic examination had been made.

Dr. Anderson asked how the formation of the cast in the catheter had been excluded.

Dr. Primrose—Was catheter passed for first time?

Dr. Oldright said cast was as large as a No. 10. And how

could it pass through the eye?

Reply.—Under microscope only blood cells were found. For two weeks catheterization had been going on; they were sterilized before using each time, hence it was impossible for it to have formed in catheter. It was a perfectly organized clot.

By invitation, Dr. Hendrick said he had washed the catheter

each time, seeing that it flowed freely.

Dr H. B. Anderson showed his card specimens (a) Ruptured Bladder; (b) Tubercular Bladder.

Members Present.—Drs. Rudolf, Parsons, Anderson, Primrose, Fotheringham, Peters, Pepler, McKenzie, McPhedran, Carveth, Ashton, Fletcher, Reeve, Hamilton, King, Oldright. Visitors—McIlwraith, Bryans, Hendrick, Hooper.

Dr. Rudolf proposed for membership Dr. K. C. McIlwraith,

seconded by Dr. E. E. King.

It was moved by Dr. Anderson, seconded by Dr Reeve, that a vote of thanks of this Society be tendered Dr. Rudolf for his address. Carried.

Dr. Parsons, Vice-President, put the motion and tendered the thanks of the Society to the President, who replied in a few words of thanks.

Cast of Ureter.

Dr. Herman Rieder, of Maine, in his atlas of urinary sediments, speaks of two casts of ureter. 1. Five inches in length; it resembled an ascaris Limbricoide in a case of sarcoma of kidney, composed of sorcomatous masses mixed with decolorized blood clots. 2. Shorter, less regular, composed of decolorized blood clots; also a tumor of kidney.

Symptoms.—Renal colic, partial or complete cessation of hematuria, which reappears as soon as pains cease, i.e., as soon

as casts reach bladder.

The patient who passed this cast was a man forty years of age, suffering from a form of paralysis resembling spastic paraplegia. During September he developed lobar pneumonia, with temperature of 103.4. Pulse 132; respiration 32. About the sixth or seventh day after onset of the pneumonia the crisis occurred, the temperature dropped to normal and ran along in this manner for about two days, when there was a sudden rise of temperature. During examination of the patient the bladder was found distended, the patient suffering from retention. using the catheter I withdrew about half a basinful of urine with a very ammoniacal odor, and of a bloody color. this the patient had no trouble in emptying the bladder. urine was withdrawn per catheter for about two weeks and bladder irrigated daily. That which came through the catheter at the beginning and end of catheterization looked like pure The urine itself was very ammoniacal and bloody, and contained pus and mucus, blood cells, and bladder epithelium in abundance; neither the pus nor blood was thoroughly mixed through the urine at any time.

The specimen presented this evening was obtained during irrigation of the bladder, it passing through a No. 10 silver catheter. I should mention that it did not pass through the catheter completely of its own accord, but protruded from upper end for about two inches. Stopping the flow of irriga-

tion fluid, I withdrew it carefully and placed it in solution, and found that it was covered with mucus, and was quite soft and elastic. The patient never complained of any symptoms of renal colic. He ultimately died of surgical kidney.

W. H. P. G. B. H.

TORONTO CLINICAL SOCIETY.

The regular meeting of the Toronto Clinical Society was held in St. George's Hall, Elm Street, Toronto, on the evening of the 6th of November, and in the absence of the President, Dr. J. F. W. Ross, the Vice-President, Dr. Edmund E. King occupied the chair.

The following Fellows were present: Pepler, J. A. Temple, Ryerson, H. B. Anderson, H. J. Hamilton, Peters, Fotheringham, Baines, Small, McIlwraith, Orr, King, Elliott, Bingham, Harrington, Bruce, Boyd, Lehman, Rudolf, Garrett, Nevitt, Oldright, Primrose, Parsons, W. H. B. Aikins, Thistle and Fenton.

Thyroidectomy.—By Drs. George A. Bingham and J. T. Fotheringham.

This occurred in a female aged thirty years. Several years ago she noticed an enlargement in the thyroid region, to which she paid no attention. Her health then began to fail and she lost flesh from 167 pounds to 120 pounds in four or five years. The eyes were prominent; breathing embarrassed; heart action very rapid. The thyroid gland was enlarged and the whole mass circumscribed. Dr. Bingham advised an operation, which was performed, an oblique incision being made from the left mastoid process to the sternum. The inferior thyroid was tied off close to the tumor and the whole mass removed. form was only fairly well borne, so normal saline solution was introduced into the rectum during the operation. The cavity was obliterated by several rows of cat-gut sutures, by quilting. Subsequent to operation tachycardia developed with an elevation of temperature—103, pulse 170, respiration 46. The ice pack was used over the precordia with good results. On the eleventh day, pulse, temperature, and respiration became normal. Vocal phonation was lost entirely. Electrical treatment was begun under Dr. Wishart One night she awoke up suddenly from her sleep and found she could talk. As to her present condition, slie has not felt so well in five years. The following points are interesting: One source of danger in the operation is the anesthetic, and if we dispense with general

anesthesia we remove this danger. Another source of worry has been the yawning cavity behind the sternum and cavity. This can be entirely overcome by a careful resort to the method of quilting in these cases. Aphonia is not necessarily pronounced and may result from hysteria and laryngitis. As to post-operative treatment, Dr. Bingham insisted upon the imperative necessity of careful and scientific attention to the patient. He was particularly strongly impressed with the ice pack to the heart, which relieved the patient so quickly.

Dr. Fotheringham: The diagnosis was early made of course, and mainly on five or six points. There was fine tremor of the hands and tongue. Von Graaf's sign was absent. For years she had refused to sleep with enough clothing on, even in winter. She also had flashes of heat characteristic of the climacteric. The knee jerks were very active; and then there

was the goitre.

Dr. Anderson stated he had made a microscopical examination of the tumor and it showed a condition of parenchymatous goitre, the thyroid vesicles being extended and filled with thyroid material.

Drs. Boyd, Pepler, Thistle, Oldright, Hamilton, Peters, Nevitt, Bruce and King also spoke on the subject, after which Drs.

Bingham and Fotheringham replied.

Temporo-Sphenoidal Abscess.—By Dr. HERBERT A. BRUCE.

This case was originally presented to the Society by Dr. Bruce at the May meeting of 1901, and he gave this further report in compliance with a request then made by Dr. Grassett. Dr. Bruce stated that the wound had completely closed; there was no discharge from the ear, and the boy is now in perfect health.

Paget's Disease of the Nipple.

Dr. J. A. Temple presented this specimen and recited the history of the case. Paget's eczema of the nipple is not a very common disease. This was a fresh specimen, Dr. Temple having removed the breast the day before, assisted by Dr. Macdonald. The patient was an unmarried woman of forty-five years of age. A year ago she consulted her physician, presenting to him an excoriated nipple. At that time he examined her very carefully and found no growth in the breast at all. He tried various applications to effect a cure but failed to do so. He did not see the case then for eight or ten months, when she again came under his observation, and he noticed that there was a lump immediately beneath the nipple. This disease is very frequently associated with cancerous deposit in the breast, and Paget pointed out and other writers since that time, that

the cancerous deposit is situated immediately beneath the nipple. In this woman there was a very thin ichorous dischargeissuing from the nipple. The history would lead clearly to show that the disease commenced as an ordinary case of Paget's eczema of the nipple which Thin describes now as malignant dermatitis and leads to duct cancer. Dr. Temple removed the entire breast with all of the fatty tissue clean down as far asthe pectoral muscle.

Dr. Anderson spoke of the two forms of this disease.

GEORGE ELLIOTT,
Recording Secretary.

SURGICAL HINTS.

In furuncles and carbuncles of the upper lip it is especially important to operate promptly, usually by thorough excision under an anesthetic. The location of the disease, in such cases, makes them peculiarly dangerous owing to the possibility of the occurrence of rapid thrombosis of the facial veins, extending to the cerebral sinuses. This, in turn, is apt to cause fatal pyemia.

In every case of coma, whether from alcohol or any other cause, always investigate the bladder by percussion, in order to find out whether there is a retention of urine. Should this be the case, measures must at once be taken to empty the bladder. If coma is due to nephritic trouble, it must not be forgotten that the fact that no urine has been passed for a long time may be due to suppression instead of retention.—International Jour. of Surgery.

Infectiousness of the Clinical Thermometer.

Rosenberger (Amer. Med.), by experiments, has shown that simple rinsing and washing of the thermometer after use may not remove from it the usual flora of the oral cavity. Bacteria were found to retain their power of infection for at least two-months after the thermometer was used. Thermometers were found to be disinfected by immersion in a 1-2,000 solution corrosive sublimate for two minutes after washing and then permitting them to dry in the air. It is advised, however, that as far as possible each patient should possess a thermometer as sacred to his own use as is his toothbrush. Small amounts of formalin or of carbolic acid poured on cotton and placed in the bottom of the thermometer case were found to be ineffectual.—
International Medical Magazine.

Editorials.

MEDICAL EDUCATION IN TORONTO.

Lucius S. Oille, B.A. (Tor.), '53, M.A. and M.B. (Tor.), '58, M.D. (Tor.), '59, of St. Catharines, has published a letter in the Toronto *Mail and Empire*, which points out "two deficiencies of the medical status present in Toronto."

1. Absence of provision for polyclinic or post-graduate study. We are to a certain extent in sympathy with Dr. Oille's opinion, and would like to see further provision for postgraduate study. How are we going to get it? We will leave out of the question, for the present, laboratory work. We have fair facilities for that both for under-graduates and graduates, and expect to have better in the near future. What we want to develop is the clinical teaching. The medical colleges of Toronto are now using all the clinical material at their disposal in every possible way known to medical science. We are using every patient we can get in three hospitals (General, St. Michael's, Children's), and as many as possible in some other institutions, such as the Isolation Hospital, House of Providence, Home for Incurables, Asylum for Insane, etc. then can we develop anything more in the clinical line? We don't think that our system of medical teaching is yet perfect in Toronto, but we don't at present see how we are going to make any phenomenal jump upwards. It is possible that if something new, which we might call a post-graduate school or a polyclinic, were organized, we might fail to do any better than we are doing now. There is one polyclinic, and one only, in London, England. At the head of it are Mr. Jonathan Hutchinson and many other prominent men. The fee charged is five dollars. When the writer was in London last June, there were twenty-five to thirty Canadian graduates. How many of these were attending the polyclinic? Not one. Why? was "no good." They were attending other hospitals where they had to pay fees of forty to eighty dollars. feel that we ought not to give up the idea of establishing something in the shape of a polyclinic in Toronto, because the teachers of London have failed to make the most of their clinical material.

2. Neglect of original clinical and laboratory research.

We are glad to be able to throw some light on this subject by publishing in this issue a specific statement of a portion of the work of this sort, which has been done in the Medical Faculty of the University of Toronto during the last few years. It required quite an amount of research on our part to ascertain that there had been so much original research done by various members of the Faculty. We also publish in the same connection a partial list of graduates who have distinguished themselves in foreign countries.

Dr. Oille in conclusion states that the methods of John Hopkins and McGill may be studied to advantage. We presume from this that he thinks McGill is better than Toronto. may say that some years ago a fair number of physicians, even west of Toronto, held such an opinion, but we think very few do so now. The success of the Medical Faculty of the University of Toronto during the last few years, furnishes ample evidence of the position she now occupies in Ontario. There are registered this session one hundred and twenty-eight freshmen, and, altogether four hundred students, not including any occasional students. We are pleased to add that the teaching Faculty is at present doing the best work, all things considered, it has done since the reorganization in 1887. We understand that the University authorities do not object to fair criticism in regard to any of the Faculties, but they all regret that one of their own graduates should have published in the lay press such a letter.

CANADIAN MEDICAL PROTECTIVE ASSOCIATION.

At the meeting of the Canadian Medical Association at Ottawa in 1900, a committee was formed to consider the question of the formation of the above association, and to report at the Winnipeg meeting of 1901.

The following abstract of the report of the committee, which was adopted by the Association, explains the objects of this new organization:

We believe it to be in the interests of the medical profession of Canada that an association should be formed by this body for the protection of such members of the medical profession as may become members of this association, and who may be unjustly prosecuted for malpractice. The object of this association is to protect the members from prosecution where such action appears to our counsel and solicitor, as well as the committee in charge, to be unjust, harassing or frivolous.

The following officers were elected, as recommended in the report: President, Dr. R. W. Powell, Ottawa; Vice-President, Dr. Camarind, Sherbrooke; Secretary, Dr. F. W. McKinnon, Ottawa; Treasurer, Dr. Jas. A. Grant, Jun., Ottawa.

All expenses arising out of such defence shall be paid out of the funds of this association, and the treasurer shall be empowered to pay out of the treasury of this body such sums as may be required to carry on the defence to a final or proper determination upon receipt of an order signed by the president and secretary.

A sum of two dollars and fifty cents shall be levied annually on each member of this Protective Association.

Every member of the profession in good standing in Canada, excepting as hereinafter provided, shall be eligible for membership in this association.

No physician can become a member of this association after having a charge made against him for any offence that may be covered by the rules of this body until after his case h. 3 been disposed of.

Upon an action being brought for malpractice against any member of this Protective Association, it shall be competent for the defendant, to communicate the facts to the secretary, who shall thereupon convey the name to the committee, whereupon such committee shall submit the case to the solicitor, who shall decide upon the nature of the defence, if any defence is to be made.

It shall be the duty of the committee to follow the case through any and all courts until a correct judgment shall be obtained, if in the opinion of counsel such a course would be judicious. In no case shall the association compromise.

A meeting of this association shall be held annually at the same time and place as the annual meeting of the Canadian Medical Association.

The new association has absorbed the Medical Defence Union-

OVER NIAGARA FALLS.

From a medical point of view, many interesting questions would naturally arise from an investigation of all the circumstances of the case of the woman who lately went over Niagara Falls, and is still alive. For the present, however, we think it will be as well to leave the matter in the hands of the lay press. We extract the following from an article which appeared in the Literary Digest:

"Mrs. Edson Taylor is a teacher of dancing and physical culture. Her successful trip over Niagara arouses various reflections in the minds of editorial writers throughout the country. The Denver Republic, for instance, thinks that Mrs. Taylor 'seems to be taking a lot of credit that belongs to the barrel,' and the Kansas City Journal, in a similar spirit, remarks that 'if Schoolmarm Mrs. Taylor wants to produce a genuine sensation let her reverse her feat and go over the falls from The Detroit Journal finds that Mrs. Taylor's the bottom.' idea holds good in all kinds of careers, especially in politics, and that 'anything can get through with the proper kind of a bar'l' The Washington Post thinks that 'some day Niagara Falls will feel like producing a book on 'The Fools Who Have Gone Over Me.' The Buffalo Express, with a characteristic pride in local bits of scenery, speaks regretfully as follows:

"We really wanted the great cataract to remain unassailable, unachievable. It is fine to have something at hand which is absolutely master of itself, superior to everything. We thought we had it in Niagara Falls. And now comes along an estimable person—not a mighty athlete, or a wonderful swimmer, or anything of that sort, but a quiet, rather matronly-fashioned woman—who tucks herself into a barrel and glides over the awful precipice well-nigh as serenely as a decoy duck would bob over a two-foot mill-dam. Could anything—even the impending lectures which the trip has so obviously fitted Mrs-Taylor to deliver—do more to belittle Niagara Falls? The question really becomes serious: Are they any longer worth looking at?

"It is, apparently, an hour in which all the impossible things are getting done. Here is the great aeronaut, Santos-Dumont, flying around Eiffel Tower as blithely as a swallow around a

church spire. Here is this other eminent scientist, P. Bowser-Nissen, charting the bottom of the world's whirliest whirlpool, so that all other navigators in those crowded waters will be able to keep from running aground in midstream. Here is Alexander Winton doing ten miles in his automobile at a rate so close to a mile a minute that we may as well let it go at that. These are all achievements, just as Sam Patch's jumps were achievements. All the world knows how much better the human race has jumped since Sam Patch showed it how; and we shall expect to see a like train of useful consequences follow the edifying exploits of Winton and Nissen and Mrs. Taylor.

"But we can't get over wishing that Niagara Falls were as high and mighty as they used to be, before last Thursday."

THE EVILS OF SUBSTITUTION.

Much has been said and much has been written on the evils of substitution in the past of druggists in filling physicians' prescriptions. We, surely, may presume that no one will deny that such substitution is wrong in every sense of the word.

A very important question, however, arises. Is such substitution common? In other words, are our druggists honest or dishonest? The writer can only tell what he knows; but he is willing to say, without any hesitation, after a careful observation of over fifteen years, that the druggists of Toronto are, as a rule, honest; and that substitution, at least on the part of the majority, is rare. At the same time we have to admit in the evidence of other careful observers, that such disreputable practice has not grown quite obsolete.

We are told that the State of Tennessee has a law making it a criminal offence, punishable by fine and imprisonment, to substitute any drug in lieu of that prescribed. We quite approve of this, and would like to see such a law enacted in Ontario. It is well, however, to remember that pharmacy in this province is under the control of a strong corporation, composed of competent and conscientious men, who have been for years, and are now using their best endeavors to raise the standard of their profession in all respects. We are glad to say that we have the utmost confidence in this body, and believe that its members will try to have good laws enacted and observed.

SCIENTIFIC RESEARCH.

Publication from Medical Faculty, University of Toronto, 1900-1901.

1. "Acute Yellow Atrophy." By Drs. McPhedran and A. B. Macallum, Brit. Med. Jour., 1894. (The knowledge of the pathology of this disease was much advanced. The article has been many times referred to as one of the ablest on the subject, and many of its conclusions have since been corroborated by later German and Russian observers.)

2. "Molluscum Contagiosum." By Drs J. E. Graham and A. B. Macallum, Jour. of Cut. and Gen. Urin. Diseases, March, 1892. (Research conducted on material obtained from outbreak in Infants' Home. The subject of the nature of the molluscum

growth was thoroughly investigated.)

3. "The Absorption of Iron in the Animal Body," Cambridge Jour. of Physiology, Vol. 16, 1894. By Dr. A. B. Macallum. (This paper settled the question of the absorption of iron in the intestine, a fact which in Germany for the preceding ten years had been doubted and even denied. The results of this work have been fully corroborated by French, German, Italian and Russian observers, and all make mention of this paper in most commendatory terms.)

4. "A New Proteid Reaction." By Dr. J. H. Elliott (George Brown Memorial Scholar Univ. of Toronto, 1896-7), Jour. of Physiology, 1897. (A new reaction for proteids, which is now quoted in German text books on physiological chemistry as the

"Elliott Reaction," and is of great value and interest.)

5. "On the Structure, Micro-Chemistry and Development of the Nerve Cells, with Special Reference to the Nuclein Compounds." Transaction Canadian Institute, 1900, vol. 6, and No. 1 Physiological Series of the "University of Toronto Studies." (Though published only two years ago, is already quoted in German and Italian original publications at length.)

6. "Observations on Blood Pressure." By Dr. R. D. Rudolf, Transactions Canadian Institute, Vol. 7, No. 3, Physiological Series of the "University of Toronto Studies." (Highly commended by the London Lancet in a recent review of the paper.)

7. "On the Anatomy of Orang-Outang." By Dr. Primrose, Transactions of the Canadian Institute, Vov. VI, and No. 1 Anatomical Series of the "University of Toronto Studies."

S. "On the Cytology of Non-Nucleated Organisms." By Dr. A. B. Macallum, Transactions Canadian Institute, Vol. VI, and No. 2 Physiological Series of the "University of Toronto Studies." (This paper gives the results of studies on the structure and chemistry of bacteria, yeasts, etc.)

9. "On the Demonstration of the Presence of Iron in Chromatin by Micro-Chemical Methods." By Dr. A. B. Macallum. "Proceedings of the Royal Society of London, Vol. 50, 1891. (Records the discovery, not only of iron as an organic compound in the nuclei of cells, but also of a method of demonstrating it with certainty, a feat which has not been hitherto accomplished. It is as yet the decisive method of locating organic

iron compounds in cells.)

10. "On the Distribution of Assimilated Iron Compounds, other than Hemoglobin and Hematin, in Animal and Vegetable Cells." Quar. Jour. of Microscopical Science, Vol. XXXVIII, 1895. (This paper gives the results of four years' study on the localization of iron in animal and vegetable cells, and it is the most complete publication on the subject. The paper has been described as a "masterly" one, and as a "classical" one, and it will probably be for many years the authority on the subject. It is considered by British physiologists as opening up entirely new fields for investigation.)

11. "On the Detection and Localization of Phosphorus in Animal and Vegetable Tissues. By Dr. A. B. Macallum. "Proceedings Royal Society of London," Vol. LXIII., 1898. (This paper gives the results of studies on the method of demonstrating phosphorus and its distribution in animal and veget-

able cells. All the results are wholly new.)

12. "On a New Method of Distinguishing Fetween Organic and Inorganic Compounds of Iron." By Dr. A. B. Macallum, Jour. of Physiology, Vol. XXII, 1897. (The paper gives a new and decisive method of distinguishing between organic and inorganic compounds, whether in the test-tube or in the tissue under the microscope, which enables the practitioner to test for himself any of the medical iron preparations put on the market.)

13. "Contributions to the Morphology and Physiology of the Cell." By Dr. A. B. Macallum. Transactions Canadian Institute, Vol. I, 1891. (This paper gives the results of studies on cell secretion and its conclusions as to the processes of secretion and the origin of the ferments are now generally accepted. Further, this paper indicated that all the ferments are nucleo-

proteids, a fact which is now established.)

14. "Studies on the Blood of Amphibia." By Dr. A. B. Macallum. Transactions Canadian Institute, Vol. II, 1892. The author found as a result of his investigations that hemoglobin is not formed, as was generally believed, out of inorganic iron and a proteid, but out of an iron holding nucleo-proteid called chromatin which occurs in the nucleus of every cell, and abundantly in the nucleus of every undeveloped red blood cell. This has compelled a revision of the accepted view as to the action of iron in anemia and chlorosis as well as a reconsideration of the views as to the genesis of hemoglobin.

- 15. "On the Chemistry of the Cell." By Dr. A. B. Macalium, British Association Reports, 1899, 1900, 1901. These reports communicated by the author as Secretary of a committee summarize the results of investigations which have been carried on in the Physiological and Pathological departments in the University of Toronto on the composition of cells and tissues.
- 16. "The Histology and Physiology of the Gastric Glands." By Dr. R. R. Bensley, Proceedings of the Canadian Institute, 1896-7.
- 17. "The Structure of the Mammalian Gastric Glands," Quarterly Journal of Microscopical Science, Vol. XLI, 1898. By Dr. R. R. Bensley. A very important paper giving many new facts regarding the gastric glands and the nature of the process of secretion. It has won already very favorable notice amongst the French and German workers on the subject.
- 18. "Method of Utilizing Frozen Sections for Class Demonstrations of Visceral Anatomy and Anatomy of the Epiphyses." By Dr. A. Primrose, proceedings of the Association of American Anatomists, fourteenth session, held at Baltimore, Md., December, 1900.
- 19. "The use of Synthesized Media in the Study of Water Bacteria." By Dr. J. J. MacKenzie, read at the American Congress of Bacteriologists published in the Report of the American Health Association.
- 20. "On Microchemical studies on the normal nerve cell and upon the pyramidal cell of Rabbits in Rabies." By Dr. J. J. MacKenzie, read at the British Association for the advancement of Science, Toronto, 1898. Abstract in the report of the Association.
- 21. "On the Micro Chemistry of the Eosinophilous Cell." By J. J. MacKenzie, communicated by Professor Macallum to the International Congress of Physiologists. Abstract in the report of the Congress.
- 22. "On the Micro Chemistry of Blood Pigments." By Dr. E. N. Coutts, Brown Scholar of the University Medical Faculty, communicated by Professor Macallum to the British Association for the Advancement of Science, Glasgow, 1901. Abstract in the report of the Association.
- 23. "On a Diphtheria-like bacillus belonging to the Streptothrix group." By Dr. J. J. MacKenzie, read at the Bacteriological Section of the American Public Health Association, 1899. Published in the report.

Professor A. B. Macallum is Secretary of the British Association Committee upon the Micro Chemistry of the Cell, and Professor MacKenzie is a member of that Committee.

Partial list of graduates who have received appointments in other countries:

L. Barker, M.B., Professor of Anatomy, University of Chicago.

R. R. Bensley, B.A., M.B., Assistant Professor of Anatomy, University of Chicago.

D. G. Revell, B.A., M.B., Demonstrator in Anatomy, Uni-

versity of Chicago.

T. Cullen, M.B., Associate Professor of Gynecology, John

Hopkins University.

T. B. Futcher, M.B., Associate Professor in Medicine, Johns Hopkins University.

T. McCrae, B.A., M.B., Associate in Medicine, Johns Hopkins University.

N. M. Harris, M.B., Instructor in Bacteriology, Johns Hopkins University.

Hibbert Hill, M.D., Bacteriologist Boston Board of Health.

Dr D. Pease, M.B., Bacteriologist State of New York.

A. H. Montgomery, B.A., M.B., Assistant in Anatomy, Cornell University.

B. A. Cohoe, B.A., M.B., Assistant in Anatomy, Cornell

University.

W. C. White, M.B., Pathologist to the Indiana State Asylums. Dr. A. Coutts, M.B., Colonial Fellow in Pacteriology, Uni-

versity College, Liverpool.

John McCrae, B.A., M.B., Assistant Pathologist, Montreal General Hospital and Demonstrator of Pathology, McGill University.

Personals.

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Professor Wm. Osler, of Baltimore, visited Toronto December 2nd.

Dr. Kennedy McIlwraith, of Toronto, was elected a Fellow of the Obstetrical Society of Edinburgh in November.

Dr. Allen D. Stewart, after acting as surgeon on the steamer Empress of India for fourteen months, returned to his home in Toronto, November 7th. After a short holiday he went to Fort William, where he has commenced practice.

At a meeting of the Faculty of Medicine of McGill University, held December 7th, it was unanimously decided to re ommend to the University Board of Governors the appointment of Dr. Thos. Roddick as Dean in the place of Dr. Craik, who recently resigned.

MATTHEW LESSLIE SWEETNAM, M.D.

Another worthy member of our profession has succumbed to our dread enemy—septicemia. Dr. Lesslie Sweetnam, of Toronto, was well known as one of our most prominent surgeons. It is likely that for some years he did more major surgical operations than any other surgeon in Canada. For a long time his marvellous powers of endurance appeared to have no limit. His friends, however, frequently recognized the fact that there was a limit, which he had reached some time ago, and freely offered good advice, which was never acted on. He was a general surgeon, but devoted most of his attention to abdominal and gynecological surgery.

Dr. Sweetnam was born in Kingston, August 1st, 1859. He received his preliminary education at Upper Canada College, and pursued his medical studies at the Toronto School of Medicine graduating M.B. in the University of Toronto, and M.D. in the University of Victoria College in 1881. After graduating he acted as one of the resident physicians of the Toronto

General Hospital for one year.

He always took a deep interest in surgery, both in its scientific and practical aspects. He did much post-graduate work both in Europe and the United States. He spent a good portion of his holiday seasons with his most intimate friend, Dr. Howard Kelly, of Baltimore; sometimes in Johns Hopkins

Hospital, sometimes in the wilds of Muskoka.

On November 4th he amoutated a gangrenous arm at St. Michael's Hospital. During the operation he received a very slight wound on the tip of his forefinger, not enough to cause any blood to flow. He took the precaution to put his finger under running water, then sucked it, and applied carbolic acid. In a day or two he found symptoms of slight septicemia, which, however, did not cause much alarm. On November 13th, nine days after receiving the wound the symptoms became alarming, and he went to Johns Hopkins Hospital, where he was under the care of Drs. Osler, Kelly, Halsted and Cullen. In a few days we heard that all danger Then came a report that he had some se-ious was past. symptoms with high temperature. Some enlarged glands were removed from the axilla. Then for days came encouraging reports. On December 10th, Mrs. Sweetnam wrote to a friend in Toronto saying her husband was improving slowly

but steadily. A few minutes before this letter reached its destination there came from Dr. Osler a telegram saving that "Sweetnam died this morning after a series of convulsions. He had been perfectly well." It was bad enough to read such a message, but it made it seem doubly sad to turn to the letter from his devoted wife—so brimful of happiness on account of the bright prospects for recovery. Her happy thoughts turned for a time to those who were earing for him she loved. She said: "All the surgeons and doctors have been most kind and sympathetic with us, and we appreciate it thoroughly." Early in the morning of December 11th everything looked favorable until about seven o'clock, when he was seized with a convul-sion, and became unconscious. After a number of convulsions he died at nine o'clock. The cause of the convulsions is unknown. It may have been uremia, embolism or thrombosis. The remains were brought to Toronto, and buried on the afternoon of December 13th. The funeral was a very large one, among those present being "all sorts and conditions" of men, women and children. Among those from outside places were Drs. Howard Kelly and Thos. S. Cullen, of Baltimore.

Dr. Sweetnam had been Professor of Surgery in the Ontario Women's Medical College for thirteen years, and Associate Professor of Surgery in the Medical Faculty of the University of Toronto since 1897. He was on the active staff of the General Hospital, St. Michael's Hospital and the House of Providence. He did an enormous amount of work, especially in St. Michael's Hospital, and, in addition, a very large private practice. Apart from his skill as an operator, there was a charm about his kindly manner which went to the hearts of his patients, whether great or small, whether rich or poor. We know of no surgeon or physician who was more highly repected and dearly beloved by his patients than Dr. Sweetnam. It is inexpressibly sad to think that one so active and skilful should have been killed by such a calamitous accident at the early age of forty-two.

Correspondence.

POST-GRADUATE WORK IN TORONTO.

Editor of Canadian Practitioner and Review.

The records show that Toronto has been a seat of education in medicine for fifty-seven years. They likewise show great expansion from the small beginning of a teaching staff of five professors in the Medical Faculty of King's College-now Toronto University—and a first class of a score of medical To-day there are three medical colleges in students in 1844. this city with an equipment of forty-four professors, an immense number of assistants, and an aggregate yearly attendance of upwards of five hundred students. This expansion, however, has been entirely in the direction of educating classes of undergraduates, winding up with University degrees in medicine. Hitherto the college authorities have been contented Their ambition has reached no with this line of activity farther. They have made no visible practical attempt to furnish provision for polyclinic or post-graduate study, nor yet for carrying on original advanced research in medicine. There is no independent polyclinic in Toronto. I will point out several apparent results.

A regulation of the Provincial Medical Council, passed as long ago as 1892, compels all graduates in medicine who desire registration as legal practitioners in Ontario to spend a year in post-graduate study, and subsequently pass the final examination of the Medical Council to test their proficiency prior to being registered. There is a standing promise, but nothing more in the annual circulars of the Toronto Me lical College for the past four years, that a post-graduate course will be arranged.

In the absence of proper provision at Toronto for postgraduate study, these medical graduates are driven to foreign polyclinics for the requisite post-graduate training. Again, all medical graduates of Ontario Universities who intend to devote a year or more to post-graduate work prior to commencing practice outside this Province must seek foreign institutions for this work. Lastly, established Ontario practitioners of medicine who de-ire to improve themselves in any branches of practice by polyclinic work, must seek a foreign city to accomplish their object.

For the reason that the Toronto University and its Medical College and Trinity University and Medical College, through their representatives in the Provincial Medical Council, participated in the enactment requiring post-graduate study above referred to, it is a valid contention that among them, in an effectual way, proper provision should be made for such culture. The Toronto Medical College in effect admits the force of this claim by a standing promise in its annual announcements, although as yet it does nothing. Trinity Medical College neither promises nor does anything to supply polyclinic instruction to graduates in medicine. A forced annual exodus accordingly goes on of Ontario medical men to the higher centres of medical learning elsewhere for post-graduate training, contributes to the importance and influence of those higher centres, and causes an expenditure of thousands of dollars yearly outside this Province.

I strongly urge that one of these incdical colleges at least should exhibit ambition, spirit of progress and sense of responsibility sufficient to remedy the deficiency under comment, and during the coming year usher into being an active polyclinic. The college itself so doing will rise to a much higher and broader plane of eminence than at present, and the world will give it corresponding recognition.

Lucius S. Oille.

[As pointed out elsewhere in this issue, the University of Toronto has made provision for advanced research in medicine, and hopes to do still more in that direction after the erection, next year, of a new building, at a cost of one hundred thousand dollars. We agree with Dr. Oille's contention that some further provision should be made for post-graduate study. At the same time it should be remembered that graduates, during the last few years have, to some extent, "walked the hospitals" of Toronto. A certain amount of post-graduate laboratory work is being done in Toronto every year.—Editor.]

THE LONDON TUBERCULOSIS CONGRESS.

Editor of Canadian Practitioner and Review.

SIR,—In reply to Dr. Oille's letter in the last issue of the PRACTITIONER, permit me to say that modesty would have prevented reference to any part I might have taken in the deliberations of the Congress. Many of the most eminent menthere took no active part, so that as a listener I was in excellent company.

As to the Faculty of Medicine of the University of Toronto not having sent a representative, the criticism is quite unjust. So far as I am aware no other similar institution had repre-

sentatives present. A few delegates registered as members of Universities without having been expressly delegated, and I might have done so likewise had it occured to me that such was desirable. I might also have offered some remarks in a few of the discussions, or even prepared a paper, had I thought, that by so doing the University and the Faculty of Medicine would have been saved animadversion, or their reputation

materially enhanced.

I may furthermore point out that there are important congresses and meetings being held from time to time, such as the British Association for the Advancement of Science, the International Congress of Physiology, etc., at which it would be both pleasant and profitable for the Faculty to be represented, but the expense of sending delegates would, I fear, be more than it can well bear. Of course if any friends can see their way clear to provide the wherewithal, the Faculty will be delighted to send the delegates, and will see to it, too, that they do their part in "upholding the standing and authority of this centre of Medical Science"

A. McPhedran.

151 BLOOR STREET W., December 1st, 1991.

Book Reviews.

Gonorrheal Arthritis—Its Pathology, Symptoms and Treatment—By L. Vernon Jones, M.D., Cr. 8vo., 82 pages. Price 2s. 6d. Published pt H. K. Lewis, 136 Gower Street, London, W. C.

The idea of publishing small volumes on special subjects is a good one. Many a man is able to write a short treatise on some special subject that he has paid particular attention to, with the greatest advantage to his confrères—while the publishing of a large volume on general medicine would not be his fort nor needed. The reading public will appreciate the lesser volume and accept with pleasure the opinion expressed. L. Vernon Jones has written a brochure on gonorrheal arthritis which is timely and should be convincing. The author's idea that the term gonorrheal rheumatism is erroneous and misleading and should not be used, seems to be correct. treatment is simple yet thorough. We have, however, used in this affection with some success, hexa methylene tetramine, and would like to see it included in the next edition of the volume. The book is neatly gotten up and published at a most reasonable cost.

Dose-Book and Manual of Prescription-Writing. With a List of the Official Drugs and Preparations, and the more important Newer Remedies. By E. Q. THORNTON, M.D., Demonstrator of Therapeutics, Jefferson Medical College, Philadelphia. Second Edition, Revised and Enlarged. Octavo, 362 pages. Illustrated. Philadelphia and London W. B. Saunders & Co., 1901. Canadian Agents: J. A. Carveth & Co., Toronto. Bound in flexible leather. \$2.00 net.

This work is intended for the student of medicine both during his years of study as an undergraduate and in the early period of his professional career. The volume will also prove of value to the practitioner of many years' standing for purposes of reference. In the revision additions have been made to the chapters on "Prescription-Writing" and "Incompatibilities," and references have been introduced in the text to the newer curative sera, organic extracts, synthetic compounds, and vegetable drugs. To the Appendix, chapters upon Synonyms and Poisons and their antidotes have been added.

In addition to the consideration of the composition strength of all official preparations, space is given to the grammatical construction of prescriptions, accompanied by example prescriptions, illustrating some of the methods of employing the different classes of remedies. It is in all respects an admirable book both for students and general practitioners.

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publisher, offers to the purchaser many advantages which will be appreciated by those who do not care to subscribe for the entire work at one time. This American edition of Nothnagel's Encyclopedia will, without question, form the greatest system of medicine ever produced, and the publishers feel confident that it will meet with general favor in the medical profession.

Anatomy: Descriptive and Surgical. By Henry Gray, F.R.S, Fellow of the Royal College of Surgeons, Lecturer on Anatomy at St. George's Hospital Medical School. Edited by T. Pickering Pick, F.R.C.S., Consulting Surgeon at St. George's Hospital and to the Victoria Hospital for Children, H. M. Inspector of Anatomy in England and Wales; and Robert Howden, M.A., M.B., C.M., Professor of Anatomy in the University of Durham, Examiner in Anatomy in the Universities of Durham and Edinburgh, and to the Board of Education, South Kensington. A revised American, from the fifteenth English edition, with 780 illustrations, many of which are new. Philadelphia and New York: Lea Brothers & Co.

It is almost needless to review a work that is so widely known as Gray's Anatomy, yet it is important to review the work because it has served as a basis for the study of anatomy so many years. No graduate in medicine in the past forty years is unacquainted with Gray. It is really remarkable that any volume should have stood the test of time as this one has It is to-day recognized as one of the best authorities on anatomy extant, and a recognized text-book in all of the principal medical colleges of the world. There is no doubt that even the study of anatomy is advancing, and in this revision of the fifteenth English edition there have been additions of importance, especially in the chapter of embryology. We can recommend this work to every student, and many old practitioners would benefit by purchasing the new edition, if only for the exceedingly good illustrations that have been added to the volume. We hope some day to see added to Gray a chapter on frozen sections, which is a particularly fine method of studying anatomy, and we feel satisfied that in some future edition of Gray this method will be adapted and chapters devoted to the anatomical study as seen in frozen sections. The press work, typography and binding are all of the excellent quality that Lea Brothers & Co. always put forth.

The Physician's Visiting List for 1902. Fifty-first year of its publication. Philadelphia: P. Blakiston's Son & Co., 1012 Walnut Street.

For many years it has been our pleasure to speak in the highest terms of Blakiston's visiting list. We have before us the list for 1902. It is quite equal to any that have preceded it, and second to none among the many excellent visiting lists published in recent years. In fact the writer prefers this above all others