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THE COMING OF THE BRITISH MEDICAL ASSOCIATION.

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If the visit of a prince, statesman or military hero be hailed with delight by social, political and military circles, no less heartily will the medical men of Canada welcome the coming of the British Medical Association. This Association has years enough behind it to merit the respect due to age, whilst the character and achievements of a host of its members fill up some of the most glorious chapters in medical literature.

Lord Bacon has said that "No man who is correctly informed as to the past will be disposed to take a morose or desponding view of the present." If this be true of ordinary affairs, it is equally so of medicine in its literature and practice. In view of the coming meeting, it is opportune to view medical history in general, that of the British Association in particular.

The material at hand is so vast that it scarcely seems possible to deal with either alone, much less both, in the limits of a paper. I shall try, however, to briefly summarize what I do write under four heads: I. Historical; II. Scientific; III. Patriotic; IV. Social.

Historical.

In the paragraph or two to be devoted to this section, it will only be possible to mention a few of the names in medicine that correspond to mountain peaks in geography. I need not detain you with any references from the medical literature of the Bible, for I presume, as Biblical students, you are all familiar with these. We are indebted to some early Egyptians

and Greeks for rescuing from oblivion whatever was known of medicine in these countries before the Christian era. The mythical personage, known to the Egyptians as Thot, to the Greeks as Hermes, and to the Romans as Mercury, is the reputed author of an encyclopedia, six volumes of which are devoted to medical literature. The first treats of anatomy, the second of diseases, the third of instruments, the fourth of remedies, the fifth of diseases of the eye, and the sixth of diseases of women. A common custom in Egypt was to place the patient by the wayside, that he might receive advice from anyone passing by who had any experience to relate. The patient, when cured, repaired to a temple, where a record of the case was taken and kept.

In India, the Brahminical Organon of medicine taught that the body had 100,000 parts; of these 17,000 were vessels, each of which was composed of seven tubes, giving passage to ten species of gases. Any perturbation amongst these gases caused disease.

Homer gives to Chiron, the centaur, the honor of having introduced our art amongst the Greeks. Chiron is said to have been the teacher of Æsculapius, whose culture and skill won for him the distinction of being honored as "The God of the Healing Art." A very ancient statue represents Æsculapius as seated on a throne holding a staff, around which a serpent is coiled—an emblem often seen in medical books. Though worshipped as divine, he had some attributes of humanity, for he is credited with being the father of two sons, who become distinguished physicians, and of three daughters, from the names of two of whom, Hygieia and Panacea, we have our words "hygiene" and "panacea." Æsculapius acquired a reputation that vies with that of some of the modern charlatans exploited by the daily press. A fable states that Pluto, god of hell, becoming alarmed at the paucity of daily arrivals, complained to Jupiter, who destroyed the audacious healer, on which account some wit has said, "The modern children of Æsculapius abstain from performing prodigies." Some of the descendants of Æsculapius formed themselves into cults. These constituted what has been facetiously called "The Angelic Conjunction," that of priest and physician, and dwelt in temples.

Between 600 and 400 B.C., three names stand out conspicuously, Pythagoras, Democritus, and Heraclitus. These travelled widely in Babylonia, India, Persia, Ethiopia, and Egypt, and, therefore, could have qualified as specialists in medicine, philosophy, mythology, mathematics and miracle working. They introduced the custom of physicians visiting their patients, for hitherto the sick had been sent to the temples. Democritus was the author of the atomic theory. This brings us up to the time when there appeared one of the most sublime figures that grace

the annals of history, viz., Hippocrates, "The Great Father of Scientific Medicine." He was born on the island of Cos, B.C. 460, and lived 104 years. "Hippocrates was worthy a place in the most brilliant period in the history of Greece. We might also add, the most brilliant of all the ages in literature, philosophy, poetry, and the fine arts." He was one of an illustrious group that included Pericles, Sophocles, Socrates, and Plato. His culture, his keen and patient power of observation, accuracy of description and exalted ideals have left their impress deeply stamped on medical literature for all time. Following the Hippocratic era we have the great school of medicine at Alexandria, where, under the patronage of the kings, anatomy was systematically taught from dissections of the human body, and physiology from experiments on the lower animals. This school attracted the brightest intellects of the period included between B.C. 400 and A.D. 150. The great library of Alexandria was said to have contained over 500,000 volumes. It was burned A.D. 640.

We come now to the most notable period in the medical literature of the Roman Empire. Space will only permit of a brief reference to two names, Celsus and Galen. Celsus, who was born in Rome about the beginning of the Christian era, was a celebrated author, and versed in rhetoric, philosophy, arts of war, economics and medicine. He was a servile follower of Hippocrates, and in classical language summed up the medical literature of his day. He gave a very concise and admirable description of a surgeon's qualifications, but despite his high ideals the "rank and file" of Romans held surgeons in abhorrence, and even in fractures and dislocations looked to spells and incantations for relief. Galen, A.D. 131-201, was a native of Pergamos. He studied at Smyrna, Corinth, and Alexandria, and settled in Rome A.D. 164. He was a voluminous writer, the author, it is said, of over one hundred books. He found the status of medicine in Rome very low, and labored faithfully to elevate it. Such was the high character of Galen's attainments and ideals that his writings dominated medical thought for more than fifteen centuries. His teaching was considered so infallible that even as late as 1539 a physician in London was prosecuted for impugning some of his statements. Galen is credited with the first vivisection. He left no worthy successor, and soon after his time began the disintegration of the Roman Empire. What is known in history as the "Dark Ages" followed, during which time little or no progress was made in either the science or art of medicine.

About A.D. 400 the preparation and dispensing of drugs was assigned to a distinct class, known as pharmacopeists.

On account of the spread of Christianity in the earlier centuries, efforts began to be made in establishing institutions for the

care of the sick. Dispensaries became quite numerous (A.D. 500-700), and through religious convictions, charity, or other motives, large sums were contributed and expensive structures erected for hospital purposes.

What is known in medical literature as the Arabic Period began about A.D. 600, and lasted until about A.D. 1300. Arabia, India, Syria, Egypt and Spain were overrun by the followers of Mahomet. Though one of these Moslem rulers burned the great Alexandrian library, others took a great interest in learning. Manuscripts were collected from all sources. One Christian interpreter got the weight of a book in gold for translating it. Arabian medicine followed very closely the dicta of Hippocrates and Galen. Rhazes and Avicenna were the most noted physicians. The former wrote a very accurate description of smallpox, a disease prevalent in the East long before it invaded the West.

Whilst luxury and licentiousness were rapidly undermining the virility of the Roman Empire, the sterner virtues of patriotism and love of adventure were moulding into national life three young nations, Britain, France and Germany. Great as have been the achievements of each and all of this trinity, there has been no more important factor in the development of their high civilization than the quiet, unostentatious work of their physicians and surgeons, whose history may now be briefly reviewed.

Throughout the first sixteen or seventeen centuries of the Christian era the practice of medicine was not, as a rule, pursued as a special calling. The healing art, such as it was, belonged to the office of the clergy, who discharged the dual function of priest and physician. During the latter part of this time, medical literature and practice were both deeply indebted to the religious orders for the introduction of books and the establishment of medical schools in connection with the universities. The great school of Salerno, near Naples, reached its zenith in the twelfth and thirteenth centuries. The most notable work issued from it is known as "The Commentary of the Four Masters." It taught, *e.g.*, the importance of certain symptoms in fractures of the skull—the use of pressure, caustics, ligatures; in protrusion of the bowel it was to be enveloped in the warm abdomen of a slaughtered animal until normal temperature and color were restored, and then, when washed with warm water, returned, and the wound closed with sutures. Other famous schools were at Bologna, Montpellier, Naples, Oxford, Cambridge, Edinburgh, Vienna and Paris. Amongst the most famous pupils and professors whose names are associated with these schools are: Lull, Gaddesden, Villeneuve, Guy de Chauliac, Lanfranc, Mundinus, Linacre, Dubois, Vesalius, Eustachius, Fallopius, Fernel, Porta, Paré, Harvey, Willis, Borelli, Sydenham, Valsalva, Fénelon, Boerhaave, Cullen, Bichat, Blumenbach, Haller, Morgagni, Hun-

ter, Jenner. To these many other names might be added of the "immortals" of the first eighteen centuries of our era.

About A.D. 1300 Pope Innocent III. issued an edict forbidding priests and monks to practice surgery. This edict ushered in a new era, in which medicine, surgery and pharmacy ultimately became special callings. Each of these became associated into distinct guilds, associations, or corporations. When this edict was issued, that portion of the clergy who practiced surgery handed over their art to the barbers, who became known as barber-surgeons, and whose occupation was depicted by a poet as those "Who shaved, drew teeth, and breathed a vein." The more enterprising of these barber-surgeons, such as Vesalius, or Paré, began to attend lectures and make dissections. These eventually separated from the barbers, and became known as surgeons. In 1800 the Royal College of Surgeons of London was established, and in 1843 this became known as the Royal College of Surgeons of England.

In May of 1423 a Faculty of Physicians and Surgeons was established in London. Its President bore the title of Rector of Medicine, and the physicians were under the government of the surgeons of physic, and the surgeons under the Master of Surgery. This union was a very unhappy one, and begat dissensions between the two bodies that took centuries to remove. One of the great evils of this time was the large number of unlicensed practitioners. This led to the passing, in 1571, of the first Act of Parliament relating to the medical profession. In 1518, Linacre, at his own expense, founded the College of Physicians, which received a charter of incorporation, and thus became entitled to issue a license to practice medicine.

In the concluding sentences of this brief and very imperfect review of medical history, time will permit only of reference to but few persons and events in the sixteenth, seventeenth, eighteenth and nineteenth centuries. Vesalius (1514-1564) published at the age of 29 his immortal work, "On the Structure of the Human Body," in seven books. The title was "Fabrica Humani Corporis." His genius enabled him to break away from the authority of Galen, and to describe what he learned from actual dissections. Harvey (1578-1667) revolutionized medical science by his demonstration of the circulation of the blood. Morgagni (1682-1771) published his great work "The Seat and Causes of Disease Investigated by Anatomy," in his 79th year. His character was in keeping with his high attainments. A celebrated writer describes him thus: "It is difficult to say whether one should admire most his rare dexterity and quickness in dissection, his unimpeachable love of truth and justice in his estimation of the work of others, his extensive scholarship and rich classical style, or his downright common sense and

status of this Association are the character of the papers, and the manly speech. From every point of view, Morgagni stands alone as an almost unattainable example to modern medical men."

Amongst his contemporaries were Haller, the celebrated physiologist of Berne; William and John Hunter, in their masterful work in anatomy, surgery and natural history; Cullen in Glasgow and Edinburgh, and Auenbrugger (1722-1809), whose little brochure of some 95 pages on percussion of the chest, although "unsaleable in his time, is to-day held worth far more than its weight in gold." Of his successors we have the brilliant young Frenchman, Bichat, who, although dying at 31, founded the science of histology; Baillie's "The Morbid Anatomy of Some of the Most Important Parts of the Human Body," ran through several editions. Other celebrated clinicians were Bright, Addison, Stokes, Graves and Bennett, and lastly, that great medical triumvirate, Virchow, Pasteur and Lister, the full fruition of whose works we cannot hope to see, unless at some future time we may be allowed an opportunity of looking down upon this mundane sphere through celestial telescopes.

Turning from the old world to the new, we find that *pari passu* with the increase of wealth and population in the United States and Canada there grew up medical schools and universities in all the larger cities. The names of these, as well as of the men who have helped to make them famous, are "part and parcel" of current medical literature, and therefore so well known to all of us that any further mention of them is unnecessary. The later decades of the nineteenth century and the dawn of the twentieth show great progress, in the means and methods employed, in advancing medical education, as well as many radical reforms in the laws governing medical practice.

British Medical Association.—Any review of medical literature would be very incomplete without a special reference to this historic organization. In 1832 there met in Worcester a small but very optimistic body of men, amongst whom was Sir Charles Hastings, the founder of this Association. From 1832 until 1840 it was known as the London and Provincial Medical Association, and since then under its present name. It exists for several purposes, such as the collection and advancement of medical knowledge; the study of the sanitary and climatic conditions of the country; the improvement of medical education; to maintain a high standard of medical ethics, etc. There was little of anything in its early history different from that of any other medical society. In 1845 the first of a large number of branches was grafted into the parent stem. And these have not only spread all over the British Isles, but have extended into all the colonies. They now number seventy or eighty. The features which have contributed most to the building up and maintaining of the high

ability of the men who read and discuss them. Research work receives special attention. The addresses of many of the Presidents and other officers have greatly enriched medical literature. Another feature that has added much to the popularity of the Association is its truly cosmopolitan spirit. Men from all the colonies, as well as from other nations, have brought their contributions, and have always been welcomed with true British cordiality. It has yet another virtue that we Canadians think adds greatly to its reputation, viz., its graciousness in accepting for a second time an invitation to visit our country, and in closing this paragraph I believe that I am voicing a very general feeling when I say in expressive, if not in classical terms, that it is "up to" every physician in this city, and throughout the whole Dominion, to do his utmost to make the coming meeting the very best in all the history of the British Medical Association.

Scientific.

The course of scientific medicine down through the ages is somewhat analogous to that of some rivers part of whose course is above ground and part below. In some periods of its history it is quite discernible, whilst in other portions it is so submerged under systems, theories, traditions and religious dogmas as to be lost track of, until some great master arose and brushed away the *debris* that obscured and impeded its progress.

Before the Christian era, in Egypt, Greece, Rome, and in probably all the great nations of antiquity, physicians, either as individuals, or banded together in cults, had obtained from observation and experience knowledge of many facts pertaining to the causation, course and treatment of disease. These efforts were of a scientific character, in so far, at least, as they were supported by accurate observation and by experience. We can readily understand, however, why this kind of knowledge was so liable to become submerged at any time, when we remember how profoundly human thought was dominated in these ages by philosophical speculations, traditions, and religious edicts. Other factors, too, militated against the progress of scientific knowledge, such as the restrictions against dissections of the human body, the scarcity of books, want of instruments of precision, such as the microscope and stethoscope, and the absence of travelling facilities. The following are the chief systems of medicine evolved in the early ages:

Dogmatism—founded by Pythagoras. This system "regarded the universe as inhabited by acknowledged sentient principles which governed all substances in a determined way for preconceived purposes. Animals, plants and even minerals were supposed to possess vivifying spirits, and above them all was a supreme principle."

Methodism—"explained all natural phenomena without recourse to the intervention of intelligent principles." Believers in this system applied the atomic theory, viz., "Atoms of various sizes were supposed to pass and repass, without cessation, through cavities or pores in the human body. So long as the atoms and pores maintained a normal relationship, health was maintained, but it was deranged so soon as the exactness of these relations was destroyed or interfered with."

Empiricism.—This system taught that "Signs constituted the natural history of disease; they thus believed that their remedies could only be suggested by experience, since nothing else could reveal it to them."

The Eclectic System chose from each what seemed most reasonable and satisfactory. Various methods of practice grew up under these systems, *e.g.*, venesection, counter-irritation, use of purgatives, emetics, gymnastic exercises and resort to mineral baths, etc. To these were often affixed the obligations of religion —prayer, penance and fasting. A great impetus was given to research work by the famous school at Alexandria, where accurate anatomical knowledge was obtained from dissections of the human body, and physiological facts from experiments on the lower animals.

It would prove a very tedious and somewhat bootless task to endeavor to follow at all closely the silver thread of scientific medical knowledge through the dark chambers and mazy labyrinths in the catacombs of mediæval medicine, where lie the remains of departed myths, creeds, superstitions, traditions, speculations and disputations, that inspired or perturbed the minds of medical men in the earlier centuries of the Christian era. The writings of Celsus, Galen, and of one or two Arabian physicians, were the beacon lights of medical literature during the first fifteen centuries of our era. Smallpox was described by Rhazes in the ninth century; syphilis, of a very virulent type, became prevalent in Europe near the end of the fifteenth century, and mercury came into use as a remedy for it. Materia medica seems to have been as prolific a matron in ancient as in modern days. One mixture, which is said to have done duty for about two thousand years, contained, in addition to opium and vipers' flesh, some sixty other ingredients. Between A.D. 1400 and 1800 scientific medicine was enriched from many sources. Medical practice was emancipated from under the control of the clergy. Religious prejudices and penalties against post-mortem dissections passed away, thereby allowing the attainment of much more accurate knowledge of morbid conditions. About 1442 printing was invented. The art of printing became a factor of inestimable value in the production of books, and, through them, in the diffusion of knowledge.

The dissections of Mundinus in the thirteenth, and of Vesalius

and others in the sixteenth century, form epochs in the study of anatomy. Harvey's demonstration of the circulation of the blood, in 1628, revolutionized the sciences of medicine and biology. Paré shocked at the use of boiling oil and red-hot iron to arrest hemorrhage, adopted the use of the ligature in 1552. Malphigi described the capillaries, and Aselli the lacteals, in 1622. Sydenham, 1625-1689, and Boerhaave, 1668-1738, did much to make medicine more rational, and Morgagni gave his great demonstrations of pathological anatomy. Haller defined "sensibility and irritability," as properties of tissue. In the seventeenth and eighteenth centuries the study of physical science and the pursuit of experiments in physiological research gave a great impetus to scientific medicine. Lavoisier demonstrated the process of respiration, and Laennec the diagnosis of diseases of the chest, by physical signs. The discovery of the stethoscope, sphymograph, and microscope, gave a fresh impulse to the acquisition of new knowledge through the agency of more scientific methods. The discovery of the vasomotor system and its functions by Claude Bernard; the research work and rare anatomical collection of William and John Hunter; the introduction of ether as an anesthetic by Morton in the Massachusetts General Hospital, October 16th, 1846, and of chloroform by Simpson, November 15th, 1847; ovariotomy by McDowell; Beaumont's experiments through a gastric fistula; Virchow's cellular pathology; the new science of bacteriology and the inauguration of antiseptic surgery by Lister; the discovery of the X-rays by Roentgen, and the healing potency of certain rays by Finsen; local analgesia by cocaine; use of cold-water coil by W. T. Aikins; research work by McCallum; implantation of ureters in wall of rectum in exstrophy of bladder, by Peters, and the eliminative treatment of typhoid by purgatives, by Thistle—these are a few of the mile-posts that mark the highway along which scientific medicine has made slow but steady progress. "The history of scientific medicine is one of progress; one thought, one spirit, one mind is ever present through the ages. External events may disturb life and civilization, but nothing can check the development of human thought, or alter the operation of a law, whereby each succeeding age is the inheritor of an increasing sum of knowledge. We are heirs of all the ages. It is our privilege and vocation, not only to make such contributions to the sum of scientific knowledge as may be utilized for the benefit of the present generation, but to transmit an increased legacy to our successors."

Patriotic.

No Canadian can read British history aright and not feel a just pride in being a citizen of such a nation. The word Britain stands for infinitely more than mere vastness of domain and great-

ness of martial strength. It stands for all that is best in the great forces that make for the highest type of civilization. Her flag insures civil and religious liberty, and her courts of justice inspire respect for law and order. Her literature embraces a very large share of the best in human thought, and her history reveals wondrous growth in industrial and commercial pursuits. The ability and acumen of her merchants and financiers have created a storehouse of wealth on which the people of other nations have been drawing for ages. But no other element in her national life has added greater lustre to her name than have the character and achievements of her medical men. There have arisen in each period of her history physicians and surgeons whose genius not only did much to insure health and mitigate suffering in their own time, but the beneficence of whose work will be felt for all time. Of her scientific organizations none has excelled in the amount and character of its work that of the British Medical Association. Surely, then, no Canadian physician can say that the coming visit makes no appeal to his patriotic sentiments. We, as Canadians, can and ought to take a great deal of interest in this Association. It is bound to us both by national and personal ties. Many of its members have visited our country, and some have come expressly to take part in the meetings of the Canadian Medical Association. These fraternal meetings have been hailed with the greatest pleasure. In extending a very cordial and generous welcome we are discharging two obligations: (1) We are recognizing and honoring the ardent labor and achievements of a large body of intelligent, courteous, self-sacrificing men. Those of us who have had anything to do with medical societies know right well from experience that success is never harvested from slumberous beds of indolence. The British Medical Association owes its present proud status to the unquenchable enthusiasm and untiring zeal of its members. (2) We owe it to our country and to ourselves to make a favorable impression on our visitors. It is altogether proper, and quite obligatory also, to tell of the great resources of our country, to make known its wealth of fertile land, its richness in mine and forest, its salubrious climate. But we must never forget that the most important factors in national life are the character and accomplishments of the people. Right here the personal responsibility comes in. A nation is a collection of units, and what these units are individually the nation will be collectively. The coming meeting will be such as we individually help to make it. The physician who will take no interest in it under the delusion that he will not be missed, will to the extent of his absence injure the meeting. It is not a few leading spirits that make these meetings a success. They are important factors, no doubt; but the hearty shake of a friendly hand and the interested attention of the hearer, are just as potent in creat-

ing a good meeting as are the papers and addresses. The attendance of every medical man in the Dominion, not rendered unavoidable by sickness or other just cause, at the coming meeting of the British Medical Association in Toronto should be looked upon as an assured fact.

Social.

Doctors should never try to divorce themselves from the duties of citizenship. The practice of their profession and the pursuit of knowledge should be used as opportunities for developing the social sense. It is, of course, to be devoutly hoped that the time may never come when the laity will fail to accord a very large measure of gratitude, by way of a good fee to and admiration for those scientific minds who sacrifice in the pursuit of knowledge so much of what is popularly known as social pleasure. The physician, in acquiring the technical knowledge necessary for his equipment and in the making use of it in his practice, is called upon to make a good many sacrifices, *e.g.*, the social gathering, with its mirth, music and pastimes; the marriage festivities, and the stately ball—all these have to be laid upon the altar of duty. But as practitioners we all know, whether we recognize the obligation to our fellows or not, the wreck and ruin that are the inevitable result of such an irrational type of professional life as we see everywhere about us. Some diversion is a necessity, so no apology is necessary for calling attention to the purely social features of the coming meeting, for they are very essential factors. It is at the social functions that the sphere of friendship will be widened, and at these gatherings our visitors will have an opportunity of becoming better acquainted with the Canadian people. The hospitality of many of the homes of the laity will be extended to our visitors, and we who live in the city should see to it that invitations are sent to our friends outside to come and spend a few days with us. If every physician in Toronto bring one or two with him, we will have at least one thousand to help swell the attendance.

We are highly favored in having in our ranks many who may be justly styled "past masters" in the art of entertaining. They can make a dinner, a sail, a lawn party, a reception, or any other social function very enjoyable, so we need have no hesitancy in promising our confreres abroad or at home a very happy time. In conclusion, whether our part be high or humble, let each of us catch some of the enthusiasm of the poet, who sings:

> "Great duties are before us, and great songs;
> And whether crowned or crownless when we fall,
> It matters not so that our work is done."

POTT'S FRACTURE—SPECIAL REFERENCE TO THE DISABILITY WHICH SO FREQUENTLY FOLLOWS.

BY B. E. McKENZIE, B.A., M.D., TORONTO.

THE various joints of the body and of the extremities should present a condition of perfect balance in order that their proper functions may be performed. When all the parts which control and constitute the ankle work in perfect harmony, there is a certain ideal relationship sustained between the foot and the leg which enables the functions of weight-bearing and motion to be performed with ease, comfort and grace. The relationships of the foot and its duties subject it to great stress and strain in the thousands of times every day that it is called upon to move from one station to another on surfaces of varying degrees of unevenness, with varying degrees of force and speed and carrying a body-weight of one or two hundred pounds.

Disability of the foot and leg, within the range of my experience, is more than ten times as common as disability of the hand and arm. In order to have a clear conception of a foot which is fitted for the perfect performance of its functions, we must have a good knowledge of its architecture. Beside the longitudinal and transverse arches ordinarily described, we must consider that in the transverse direction each foot presents a partial arch having a pier supported at the outer border of the foot, completed only when the two feet are considered together. The inner limit of each half arch is at a distance from the ground at the inner border of each foot. If the feet be placed together so that the inner borders be in contact, then a dome is formed having its apex at the point where the scaphoid bones come together. The unsupported end of the half arch, passing transversely in each foot, shows a tendency to descend, thus rolling the foot into a position of pronation, lowering the inner malleolus and the inner border of the foot.

The tendency manifested by the foot thus to roll into pronation will be still more clearly seen if it be observed that the body-weight transmitted through the tibia falls not evenly upon the os calcis, but more toward its inner border. If the foot be considered a triangular base sustaining the body-weight and having its angles at the tubercle of the os calcis, and at the heads of the first and fifth metatarsal bones, the vertical line of transmission of the body-weight reaches the ground not centrally but at a point nearer to the inner side of the triangle than to the outer, and when the foot is much everted this line may reach the ground at a

point entirely internal to the triangle. This tendency to roll over into pronation is counteracted in the normal foot by the power of the inner group of leg muscles, the tibiales and the long flexors of the toes, by the fact that the foot is wedged in tightly between the malleoli, and because at each step the impact is outward as well as forward. The fibula has its chief function, not in weight-bearing directly, but in acting as a brace or guard to support the tibia and to hold the foot in place so that it may not become pronated nor dislocated outward.

If this brace (the fibula) be broken so that the malleoli be allowed to separate and the body-weight to fall upon the foot,

FIG. 1.
At A the overriding of the fragments is seen.

disability results from the strain put upon the structures at the inner border from the movement inward and downward of the inner malleolus and the relative outward displacement of the foot in its relation to the leg.

"By Pott's fracture of the ankle is understood the injury caused by forcible eversion and abduction of the foot upon the leg. The lesions which may be present in this fracture are a rupture of the internal lateral ligament, a fracture of the tip of the internal malleolus, a separation of the lower tibiofibular articulation, an oblique fracture of the fibula two or three inches above the tip of the external malleolus, a fracture of the outer

edge of the lower end of the tibia. Ordinarily, the mechanism of the fracture is somewhat as follows: As the foot is abducted, the strain is felt at the internal ligament and this gives way. If the force continues, the internal malleolus is pushed through the skin, and an open fracture results. If the internal lateral ligament holds against this lateral force, the tip of the internal malleolus may be pulled off."—*Scudder.*

It will be manifest that the likelihood of disability arising from eversion of the foot after recovery from a Pott's fracture will be greater in one who was predisposed to such a deformity before the accident occurred. The number of persons who suffer in a greater or less degree from having feet thus unduly everted is very great. It is commonly spoken of when it occurs in children as "weak ankles," in adults as "flat-foot."

When this disability becomes the subject of investigation by a court of justice, great care should be taken to ascertain whether there was an antecedent tendency to pronation. It may safely be asserted that in a case previously showing such a tendency to pronation, considerable disability must result after fracture, even if the surgeon succeeds in getting the foot and the fragments of the bones into just the relationship which they previously sustained. This disability would follow in such a case as a consequence of the traumatism alone. Many persons who are disposed to have the everted foot have just sufficient margin of reserve to enable them to get along, but no more. When this small margin is wiped out, as traumatism alone may do, even if replacement is perfect, and if the healing processes are complete, yet painful weight-bearing and locomotion must follow.

In the skiagraph here shown it will be seen that the outer malleolus was pushed still further outward, widening the space between it and the inner malleolus, while the upper end of the lower fragment of the fibula moved inward and upward until it came into contact with the tibia, the fragments of the fibula thus overlapping at the point of fracture.

It will be seen that the great danger in the treatment of this fracture is that the foot may not be placed and retained far enough inward in its relation to the leg.

Adjustment of Fracture and Dressing.

Scudder thus describes the adjustment: "The patient is anesthetized. The foot is strongly inverted by great lateral pressure put upon the posterior part of the foot. This inversion of the foot cannot be made too strongly, for the deformity cannot be over-corrected. The position of extreme inversion is not a painful one to maintain. Ordinarily the lateral pressure applied is too slight entirely to correct the deformity." Up to

this point I am in cordial agreement, but I must strongly assert my confident belief that there can be no fixation means employed so satisfactory as plaster-of-Paris applied and retained as the regular circular and continuous dressing. This I would apply whatever be the amount of swelling present. If sufficient absorbent cotton be applied over the foot and limb the plaster-of-Paris bandaging may be done so as to make comparatively firm pressure. The yielding of the cotton will, on the one hand, prevent undue and dangerous pressure, and its elasticity, on the other hand, will guarantee a moderate degree of pressure upon the foot and leg in all its parts. Under any circumstances where there is not a compound fracture, this dressing may remain on for several days. When the swelling has subsided, it may be removed and a more snugly fitting plaster dressing applied. If, in the meantime, fragments of bones have slipped out of position, a readjustment may be made. When plaster bandages are thus dexterously adapted to every unevenness and inequality in the foot and leg and applied so as to make a reasonable but safe degree of pressure, they make the most reliable fixation dressing which it is possible to employ.

While I have no statistics at hand to show the proportion of cases which result badly and cause disability from the mal-position of the lower fibular fragment just referred to, yet I am led to believe that it is a condition of frequent occurrence. For its relief either one of two methods of procedure may be adopted.

Mechanical Treatment.

(*a*) A boot may be so constructed by building the sole wider and thicker at the inner border as to roll the foot inward, bringing it more directly under the body-weight. This may be quite sufficient in cases of slight disability.

(*b*) This may be supplemented by a brace at the outer side of the leg passing from the boot, to the shank of which it is attached, to a point just below the knee where it is retained by a strap passing around the leg, while another strap passes around the ankle drawing it toward the brace at the outer side. These may be further supplemented by a strap securely attached to the sole of the boot inside and passing under the arch and upward by the inner border till it reaches across to the bar at the outer side where its upper end is secured.

Case 1.—Mrs. L., aged 56, a large woman weighing about 170 pounds, first. consulted me, August 15th, 1905. In July, 1904, she fell into a cellar, fracturing the fibula and causing outward displacement of the foot. Now she has marked eversion of the foot, and complains much of her inability to walk or stand for

any considerable length of time. I advised operation with a view to replacing the foot. Mrs. L. and her husband being averse to operation I proposed the use of a boot and brace such as described above.

In October last she came to Toronto and remained several days while the boot and brace referred to were made and carefully adjusted. She at once experienced marked relief in standing and walking. I saw her again on November 2nd, when she

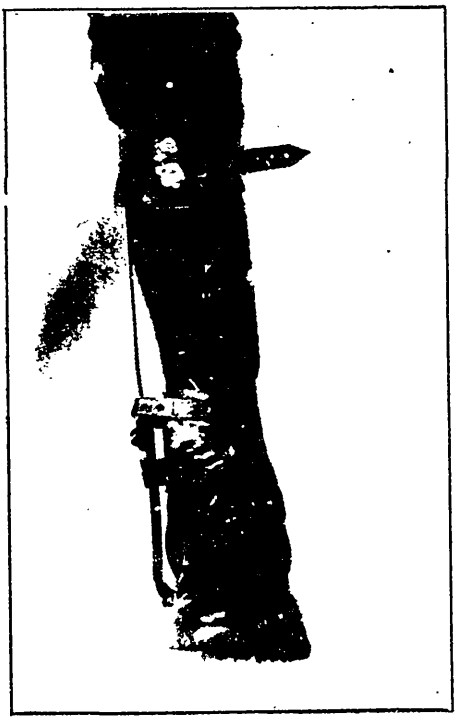

FIG. 2.

In this illustration the brace should be shown at the *outer* side and the strap should be reversed so as to pull the ankle *outward*. Sole of boot should be wider and thicker.

reported that the most marked benefit had resulted from the support given, that she was now doing her own household work, and that the function of the foot was constantly improving.

Operative Means.

Separation of the fragments of the fibula followed by replacement inward of the foot is likely to prove insufficient. The separation of the malleoli which resulted from the fracture of the fibula, the adhesions which have occurred during the healing

process, and the natural tendency of every foot to be everted, will prevent the replacement from being effective and satisfactory unless the foot be carried farther inward than can be done by operating upon the fibula alone. It will be found necessary, on the one hand, to cut the tibia at a point a short distance above its lower extremity and to carry the entire foot and the lower portions of the tibia and fibula inward to such an extent as to make quite a decided inward bend in the leg at the point of section. Scudder makes the very strong statement that in dealing with the ordinary Pott's fracture it is impossible to carry the foot too far inward when the parts are being adjusted and the fracture dressed. At one time I thought his statement too strong; but in dealing with cases of recent fracture, and realizing that the tibia is not broken except when the tip of the malleolus is torn off, I have reached the conclusion that the surgeon runs no risk by living up to Scudder's advice. It is true that in operating because of the disability which has resulted from a misplaced foot following the fracture, when not only the fragments of the fibula have been separated, but the tibia has been cut, it is possible for the surgeon to carry the foot too far inward. He is not likely, however, to err in this regard as it will be found necessary to make a considerable bend in the leg at that point in order that the foot may be moved sufficiently inward to bear firmly and evenly the super-imposed weight of the body.

After separating the fragments of the fibula and cutting the tibia, carrying the foot well into adduction and dressing the limb in plaster-of-Paris, it should be allowed to remain in this position for a period varying from eight to twelve weeks. After this the foot will be found to come so directly under the body-weight as to make locomotion much more satisfactory.

Case 2.—Miss M. B., aged 25; seen in August last. About four years previously she had been thrown from a carriage in a runaway accident and had sustained a Pott's fracture of the leg. The accompanying skiagraph will show that in adjusting and dressing this fracture the foot was left in an everted position so that the fragments of the fibula were overriding to an extent of about half an inch, and the upper end of the lower fragment was impinging upon the tibia, permitting an outward movement of the external malleolus, and a consequent widening of the space between the malleoli. During the four years that have intervened, various plans of treatment have been adopted without success. She walks fairly well for a short distance, but standing for any length of time or walking for a considerable distance, which should be easily and comfortably done by one of her age, is accompanied by pain and a feeling that the limb is giving way under her.

I advised operative treatment but spoke of mechanical treatment also. Agreeable to this advice, she was admitted to the Toronto Orthopedic Hospital, and, assisted by Dr. S. M. Hay, the operation was performed as described above. It was not necessary to secure the bones in position by suture. There could be no displacement of the fragments of the tibia seeing that the fracture was transverse following cutting of the bone by McEwan's osteotome. Plaster-of-Paris was relied upon entirely to hold the parts in their new position and to secure sufficient adduction of the foot. Healing was without incident, except for the fact that some small spicules of bone, having been separated while freeing the fragments of the fibula, prevented the wound from healing as promptly as usual. In the course of a few weeks, however, all was healed, a boot and brace were made similar to those described above, and these she will be asked to use for probably a year, until we have assurance that the fragments are remaining in the position in which they were placed. To summarize:

1. What is known as "Pott's fracture" consists of a fracture of the fibula a short distance above its lower end, rupture of the internal lateral ligament or fracture of the inner malleolus and outward displacement of the foot.

2. After adjustment and healing, disability frequently follows because the foot remains pronated, or becomes pronated from bearing the body-weight.

3. During adjustment the foot and external malleolus should be drawn strongly inward bringing the foot into adduction—even to the extent of over-correction—and bringing the malleoli as close together as possible, thus guarding against the foot relapsing into pronation.

4. It should in all cases be ascertained whether there was any antecedent tendency toward undue pronation.

5. The disability may be remedied by mechanical means or by operation and readjustment. In operating it will be necessary to fracture the tibia as well as to separate the fragments of the fibula.

6. The continuous circular bandage of plaster-of-Paris forms the best fixation dressing.

Selected Articles.

THE PROPHYLAXIS OF APPENDICITIS.*

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INFLAMMATION of the appendix vermiformis is so frequent, and is attended with so considerable a percentage of disastrous issues, that leaving out of consideration the very few cases occurring in the course of typhoid fever, of tuberculous or malignant disease of the intestine, of actinomycosis, or as the consequence of trauma, the question Can we do nothing to prevent such inflammation? seems perfectly pertinent.

What is the etiology of appendicitis?

In my book on "Constipation in Adults and Children" (1), in the first chapter on "The Consequences of Constipation," under the heading "Appendicitis," I say: "I hold that this very grave affection is in the majority of instances provoked by constipation (temporary or habitual)." The reasons therefor and the facts upon which they are based are then given.

Wyeth (2), in an article on "Appendicitis," published in 1896, lays great stress upon what he holds to be the unfortunate position of the appendix; that it is for this reason subject to distention from semiliquid fecal matter which passes into it from the cecum, and of which it cannot readily unburden itself, owing to the weakness of its muscular tunic; that the weight of the bowels tends to interfere with its nutrition by direct pressure upon the single artery that supplies it; people of sedentary habits and with chronic constipation suffer more on account of increased pressure.

It will, I believe, be generally admitted that the first part of this statement is not in exact accord with the facts. It has been demonstrated time and again by post-mortem section that under ordinary circumstances the appendix is empty or contains only a little mucus. It can be readily understood wherefore this is so when it is recalled that in life, in the normal state, the appendix is doubly closed to the cecum, first by the falling together of its lips, and secondly, by a fold of mucous membrane which projects

*Read at the meeting of the Medical Society of the Greater New York, November, 1902.

into its lumen on the inner side of its orifice, forming a sort of valve, as first described by Gerlach. This, though contrary to the positive statement of Treves (3), has been sufficiently demonstrated by others.

As to the weight of the bowels interfering with its nutrition, that is also a statement based on theoretical grounds only. If this were so, we should have many more cases without concretions than we do have; we should see many more cases of gangrenous appendicitis, and, more particularly, we should have a large number of cases in old people, in whom the general circulation is already of greatly lessened force, and who are, therefore, prone to ulcerative and gangrenous processes in those parts the nutrition of which is still further impaired by interference with its vessels, either by pressure upon them or by obstructive processes within or about them. The fact is, however, that appendicitis is most prevalent in the earlier periods of life, when the circulation is of greatest vigor, and naturally that of the appendix also of much better force than at subsequent periods of life. Thus, Fitz (4), in 251 cases, found 76 per cent. of the patients under thirty years of age. Hawkes (5), of 224 cases seen in St. Thomas's Hospital, found but nine-tenths of one per cent. in persons over fifty years of age. Furthermore, the bowels make no pressure on the other abdominal organs or between their various segments, as has been sufficiently demonstrated by studies upon intra-abdominal pressure. This is all so well and so abundantly proved by necropsies that no further evidence in its support need be adduced here.

Fowler (6) also looks upon the disease as caused primarily and principally by impairment of the nutrition of the appendix by interference with the circulation of its single artery, a terminal vessel only, as he describes it. He further fortifies his position by the report of Van Cott as to his finding in the mesoappendix of thirteen appendices exsected for the disease and submitted to him for examination, various forms of obstruction, para-, peri-, or endoangeiitis, or organized thrombus. The greater exemption of women is explained upon the ground of a better blood supply, namely, additional vessels that pass in the fold running from the broad ligament to the appendix, the appendicular-ovarian ligament.

The investigations of Breuer (7) made at the express instigation of Nothnagel have contradicted the assumptions of Fowler. Summarized, the results of these investigations are as follows:

1. The blood supply of the appendix is not of the scant character, furnished by a terminal vessel only, that some authors would have us believe. In fact, quite a number of vessels of fair size pass from the circulatory system of the cecum to the appendix,

are distributed among its various structures, in the mucous membrane, in the muscular tunic, and immediately beneath the serous covering, and anastomose with branches from the appendicular artery—representing, thus, a blood supply ample in all respects for the nutrition of so very small and functionless a segment.

2. The vessels supposed to furnish the appendix in women with an extra supply of blood could not be found by him either on microscopical examination, or even after careful injection of the parts.

3. The changes in the arterial vessels, which Van Cott asserts that he has seen with unfailing regularity, could not be discovered by him.

The conclusions of Nothnagel (8), based upon these results are, that it is true that the blood supply of the appendix is not so ample as that of other parts of the intestinal tract, and that, therefore, an obstruction of the artery at its entrance into the mesenteriolum would be certainly followed by the gravest consequences. But these accidents, though possible, are of so extraordinarily rare an occurrence that they are not to be considered in the pathogenesis of the so-frequently occurring appendicitis.

The seriousness of the objections that present themselves to any pathogenesis of the disease based upon the ground of anatomical construction, faulty position, or insufficient blood supply, was felt by Nothnagel (9) in his extensive consideration of the etiology of the disease, in which all the various theories are discussed and, frankly expressed, the reader thereof is left in rather a hazy state as to what is really the effective factor in its production.

However, and this is the point to which I desire to direct attention more particularly, whatever views may be held upon this point by the various authors, the influence of constipation of an overloaded colon is acknowledged by all and invoked more or less by all.

Mynter (10), in his treatise on "Appendicitis," counts indigestion and constipation among the predisposing causes.

Lange (11) is very outspoken on this point. He considers appendicitis unusually prevalent in this country, and particularly in New York. He attributes this to two of our national failings, that of eating too much and chewing too little, the result of which is constipation. Contributory causes of the prevalent constipation are our hurrying, restless, nerve-straining lives, which lead us to ignore the demands of Nature. Fecal accumulations set up trouble in the mucous membrane of the cecum. So-called fecal calculi are often found—but very rarely, much more rarely than was formerly believed, foreign bodies are a cause of the disease.

It is true that Fenwick (12) reports that, out of 43 cases of

perforating appendicitis, in subjects whose previous state of health had been recorded, only three acknowledged a constipated state of the bowels. This, however, as stated in my book already referred to, "does not detract from the force of my argument. My experience has taught me that many more persons are constipated than really have an idea that they are so. With some, the evacuation every morning of a few hard, rocky scybala, requiring considerable effort for their expulsion, with others a scant evacuation every third or fourth day, is held to be an evidence of regularity, and they will tell their physician, when the occasion therefor arises, that they are regular." I have had but lately some examples very illustrative of this.

1. A gentleman called upon me for treatment for his stomach. On questioning him, he informed me that his bowels were regular. An examination disclosed a marked hyperacidity. I treated him, but he did not make good progress. Finally, I questioned him again and with more minuteness, and then found that he was very constipated, and that he had been so for some time before he came to me, how long previously he could not remember.

2. A few months ago a lady came to consult me. Questioned as to the state of her bowels, she said that they were regular. A week later I discovered that she was of a decidedly costive habit.

3. Some days ago a gentleman came for treatment for a stomach trouble. To the question as to the condition of his bowels he answered, "Oh, yes, they are all right." However, close questioning disclosed the fact that he was constipated, and that unless he took something to move the bowels, either medicine or large quantities of cold buttermilk, he had no action.

"Moreover, attacks of temporary constipation of longer or shorter duration are entirely overlooked or forgotten by the great majority of persons." (13)

Upon this basis, holding constipation to be the essential factor, the pathogenesis of appendicitis stands out clear and distinct and is readily understood by all.

How does constipation affect the appendix?

First, it enables fecal matter to pass into the appendix. It is in this way: "In constipation the residual matter accumulates in the cecum and distends it; the orifice leading into the appendix is thereby opened. Feces can now pass into this part, or rather, are driven into it by the constantly growing mass. Their complete return, however, into the cecum is prevented by this same mass of fecal matter in the cecum, which acts as an obstructing wall to anything coming from the appendix and by the lack of sufficient muscular power inherent in the organ." (14)

Second, the fecal matter thus forced into the appendix and stagnant therein, may undergo liquefaction and permit of the

development of bacteria, which may give rise to an inflammatory process, either of a mild character, a catarrhal inflammation, or of a severe and grave type tending to the rapid formation of pus and with all the aspects of an acute infection, owing to the absorption of toxines by the richly developed lymphoid system of the mucous coat. All this depends upon the character of the feces that are forced into it, whether or not they contain matters that undergo putrefaction easily or not.

It is only in this way that the theory based upon the assumption of the semblance of the lymphoid structures of the appendicular mucous membrane to the tonsils, and from which Sahli (15) deduced his angina of the appendix, has any ground.

It is only in this way that the bacterial etiology of appendicitis has any basis. In proof of this may be adduced the fact that diarrhœa, even of putrid character with abundant development of bacteria of varied forms and characteristics, do not engender appendicitis. In the few cases recorded where it was said to have so followed it was a diarrhea with constipation as described by various authors, and by me in the book already referred to.

Third, it may lead to the formation of concretions. When feces become stagnant in the colon they have a tendency to become inspissated, hardened. No evidence is needed to prove this, for almost every medical practitioner of any experience is familiar with the hardened scybala that are so common in cases of constipation.

The appendix is part of the intestinal tract, is anatomically constructed like it, not a whit different, and there is no reason why that which is of so common an occurrence elsewhere should not happen here. On the contrary, the inspissation occurs here more readily, owing to the greater immobility of the contained matter, the greater length of the absorbing surface, as has been very clearly set forth by Finkelstein (16), and the closer application of this absorbing surface to the contained matter. The mucous membrane takes up from the feces the fluid portion thereof, and nothing but the dry, hard residual matter is left.

The findings of Lockwood (17) as to the abundance of bacteria in some of the concretions are also thus readily explained without recourse to the theory of a special bacterial invasion, for which no proof can be adduced, but rather much evidence to the contrary, as has been already indicated above.

There is no ground, as has already been pointed out by Nothnagel (18), for the supposition of Talamon (19) that the concretions are formed in the cecum and rolled into the appendix. The contents of the cecum are semifluid, or nearly so, and inspissation to such degree does not occur therein. No such

hardened masses—that is, of cecal origin—have ever been found there.

The observation of Goldbach cited in support (20) cannot contravene the position here taken, as the history of the case clearly points to a cholic origin of the two small concretions found in the cecum.

There remains only the question as to the greater exemption of women, since they furnish to the ranks of the constipated a contingent as large as, if not larger than, does the male sex.

To this answer may be made: First, that in woman the pelvic cavity is much roomier than in man, and thus, perhaps, permits of greater distention of the cecum without the orifice of the appendix being forced open. Second, that woman is more particular in her food, eats more at her home table, and is thus less liable to introduce decaying matter, which is likely to set up sharp putrefactive fermentation, into her digestive tract. Third, she is not given so much to the free consumption of alcoholic beverages, which of themselves cause a predisposition to congestive processes in the abdominal organs, and particularly in the terminal parts of the intestinal tract.

With the etiology of the disease thus clearly before us, the answer to the question propounded at the outset of this paper can be no other than an affirmative one. As the old maxim has it, *sublata causa tollitur effectus,* remove the constipation and there will be no danger of appendicitis.

By removing the constipation I do not mean the giving of a purgative to provoke an evacuation, to be followed only by a still more obstinately constipated state, but a restoration to the intestinal tract of its pristine, its inherent vigor, so that it can empty itself with regularity and spontaneously, of its own volition as it were, by the use of its muscle as Nature intended and provided that it should. That this can be done has been amply demonstrated by many eminent men, and the procedures therefor have been fully described in my book on constipation already referred to.

It would, of course, and I am fully aware of it, be a rather difficult matter to demonstrate clinically that to remove constipation will obviate the risk of appendicitis. However, if cases in which a first and even a second attack of appendicitis had occurred, and eminent surgeons had, after full examination, advised and urged operative interference, had been cured of their appendicitis by relieving their constipation in the manner just above referred to, then I believe it must be admitted that the correctness of the position here taken has been further fortified, in all respects, by clinical demonstration.

The following, as their histories show, are such cases:—

CASE 1.*—June 9th, 1897, M. J., a male, aged twenty-seven years; stoutly built young man, five feet eight inches in height; weight, one hundred and sixty pounds; clerk. He always enjoyed good health until two years ago, when he had an attack which was said to have been typhlitis. The physician who attended him employed, among other things, rectal injections, which brought away enormous quantities of fecal matter. After the lapse of some time he was able to be up and about. On April 10th, 1897, he had another attack which, according to his statement, was in all respects like the first. He eats well and always has a good appetite. His bowels have been constipated since he was eight years old, when he began to work. He does not know how the condition became a habit. He has used purgatives regularly, and therefore is at a loss to account for the large accumulations evacuated as above mentioned.† He was formerly much given to athletic exercises, riding a bicycle, jumping, etc., but since the attacks of typhlitis he does not ride the bicycle, and he has to be otherwise careful in his movements, for any unusual motion, such as jumping off a car, will cause pain in the right inguinal region. Since the attacks above mentioned he has had spells of bad breath. Occasionally he has headaches, not pains, but rather a dulness, a heaviness of the head.

Examination.—Stomach normal. Abdomen on inspection shows nothing abnormal; palpation reveals a dense, broad induration in the right inguinal region, extending from the right anterior superior spine of the ilium forward toward the umbilicus, eight centimetres in width and downward and forward, following the curvature of the region to the linea alba, six centimetres in length. The part is not sensitive to light superficial palpation, but a more forcible stroke, with deeper pressure, will cause him to wince, showing tenderness. I was rather in doubt whether anything could be done, but concluded to make the trial.

Treatment.—Dietary regulations; hydriatic applications over the seat of the induration; massage; electricity. Over the seat of the induration the massage was at first very lightly made, just skimming over the surface, and merely intended to stimulate the circulation, and thus to effect, if possible, an absorption of the exudate.

June 26th.—The bowels began to act spontaneously to-day. He had a large, natural, spontaneous movement this morning.

*This case has already been previously reported in my paper, Constipation—its Treatment by the Mechanical Measures, *Medical Record*, April 3, 1899. It is there case ii. of that series.

†This very strikingly demonstrates what I have maintained above, "that many more persons are constipated than really have an idea that they are so."

September 16th.—The bowels are moving regularly every day. The induration in the groin has disappeared entirely.

He remained under treatment—that is, the mechanical applications were made at intervals of from three to ten days—until February 14th, 1898, when he was discharged. His bowels have continued to act regularly. I saw him but lately, and he informed me that he was perfectly well, and last summer took a long bicycle trip through the Eastern States.

Since the publication of this report I have met him socially at various intervals, the last time only two months ago. He has had no further trouble. His bowels act with great regularity.

Case 2, April 18th, 1900.—A. P., aged twenty-five years; single; five feet three inches; weight, one hundred and five pounds. No particular occupation; lives at home with her parents, and helps in the housekeeping. She is of a lively disposition, and enjoys going out to parties and entertainments very much. She had enjoyed good health up to two years ago, when she had an attack which the physician in attendance diagnosticated as an acute appendicitis. She was sick for nine weeks, and then being convalescent she went to the country and remained throughout the whole of the heated term. When she returned she was in fairly good condition. However, her digestion was weak; she had no appetite, and took but very little food. At intervals of from three to four weeks she would have a recurrence of the pain in the lower abdomen on the right side, which made it necessary for her to take to her bed and to apply an ice bag. After several hours, or even as many as twenty-four or thirty-six hours, she would feel relieved, get up out of bed and resume her usual life. Last summer, while up in the mountains, she had such a seizure, and came down at once to the city to see her physician. As the pains began to recur with greater frequency, she was taken by a relative, some time during the past winter, to see an eminent surgeon, who, after an examination, informed her and her friend that she had a chronic appendicitis with recurrence of acute exacerbations, and that operative interference was absolutely necessary to insure her complete recovery. He urged an immediate operation. Since then she has become rather nervous, as with every seizure she is nearly frightened unto death.

Status presens.—She has no appetite, eats but very little, and then in a perfunctory way, because she says "she knows it is necessary for her to eat." Only at rare intervals, and then mainly when in company, does she experience any craving for food. Her bowels are constipated, and have been so as long as she remembers. Since her illness she has got into the habit of taking some laxative medicine almost every night. She has the pains now at varying intervals, sometimes every three or four days; then, again,

she may remain free therefrom for two or three weeks. Her tongue is always coated and, on awaking in the morning, somewhat dry. She sleeps well.

Examination.—Heart and lungs normal. Abdomen nothing abnormal to inspection or palpation. Abdominal walls very flat, no panniculus at all. No tenderness to touch or to percussion anywhere. The seat of the pain referred to above is, as pointed out by her, in the region of the cecum. No pain there now, even on deep pressure. No pain on pressure about rectum. A little of the feces adherent to the finger on withdrawal; had a very sickening and persistent odor. Stomach normally located, no splashing; water 7 oz.; no splashing. Liver and spleen normal and normally located. Right kidney movable to third degree.

April 23rd.—Re-examined abdomen; results the same.

Test breakfast E. and B.; one hour; tube introduced and thirty cubic centimetres of stomach contents withdrawn. Ordinary appearance; bread fairly well worked up. Reaction to blue litmus +; reaction to Congo +; reaction to Phoro-Gluc.-Van. +; reaction to Resorcin—Rennet (after Leo) +, pepsin +.

Diagnosis.—Atony of the intestines of long standing. Impairment of gastric secretion.. Motor function of stomach fairly good, but not quite up to the normal. Flatulence. (No doubt some of the pains—particularly those of short duration—are due to this.) As to an appendicitis, the examination disclosed nothing special; but the history and the names of the attendant leave no doubt as to the character of the illness mentioned above.

Treatment.—Dietary. Directions. HCl dilute, ten drops with lunch and dinner, in the way directed. Peptenzyme after meals. Faradaization of stomach. Massage to bowels. Inhibition of all medication to move the bowels.

The treatment was continued on these lines throughout the whole period that she was under observation. Progress was at first very slow. Though no pain was noted over McBurney's point and the appendicular region at the time of the examinations, as recorded, it was elicited subsequently at various times when she came and complained of the pain. Again, her stomach would revolt at the cruelties inflicted upon it in the shape of indigestible food matters ingested in the pursuance of social pleasures and duties. Then, in the earlier period, the peculiar pains that many women suffer prior to menstruation and with its oncoming were complained of, and with these were other factors that test the nerve stability of a person, and these contributed to aggravate the periodical suffering last referred to. On the whole, however, progress was made. Thus, May 31st, the record reads: Doing nicely. She says "she must admit that she is feeling much better." She complains that she has but little appetite. Take a

nux vomica tablet before meals. Take half a glass of beer before she eats her soup. Continue treatment as before.

At another period gastralgic attacks supervened at intervals and had to be combated. She was much troubled with flatulence, both of stomach and bowels; but gradually this mended also. On July 15th the record notes: She is feeling splendid (her own words). Leaves for the mountains in a day or two.

September 9th.—Came in to-day to report. She had a splendid time while away; ate well, slept well, and gained five pounds. She had no attacks of the pain during this whole period. When she felt any slight twinges of it she took an asafetida pill (with which I had provided her previous to departure) and it always relieved her (caused discharge of flatus). Her bowels have been regular. Advised her to continue a preparation of malt for some time to come.

February 9th, 1901.—Patient came in again to-day. She was perfectly well up to four weeks ago, when she again became constipated as a result of negligence on her part. Complains now of some pain across transverse colon. No appetite. Ordered a bitter mixture and gave her a massage.

February 18th.—Again the gastralgic attack. 19th.—Test breakfast as before. Reaction to blue litmus +; reaction to Congo +; reaction to Phoro-Gluc.-Van. +; Free HCl, 24; total acidity, 59. Marked improvement in the gastric secretion. 21st.—Much better; no pain; bowels open. Continue malt preparation and the bitter mixture. February 28th.—She is feeling very well again. She has gained somewhat in weight (two weeks ago 108 lbs., to-day 110 lbs.).

March 15th, 1902.—I saw her to-day at a social function. She has enjoyed good health all this time. "You have made a new woman of me," she said to me.

Case 3, October 10th, 1900.—O. F. H., aged twenty-five years; single; merchant; height five feet three inches; weight 115 lbs. (about two years ago, 128 lbs.). Had always enjoyed good health. Two years ago he began to be seized at intervals with cramps and diarrhea, which would last for a day and then be over. During the following summer the attacks increased greatly in frequency, to become less frequent with the setting in of the cooler weather. Last May he was seized with a pain in the abdomen more than ordinarily severe, which shifted (his own expression) and finally settled on the right side. A physician was called to attend him, but he was not relieved. After some days he called upon a very prominent surgeon for advice, and, after examination, was informed that he had appendicitis, that an operation was necessary, and that it should be done at early day, the sooner the better. He was very much alarmed thereat, and

went to consult another physician, who put him on a restricted diet, and treated him for quite a long time with medicines, enemata, etc. He was not benefited at all.

Status presens.—He is very constipated; has always been so, and is still more so since the onset of this illness. He is much troubled with pains in his bowels, particularly in the right side. These pains come on most frequently at night, and thus his rest is very much broken. Much flatulence. He eats very moderately. His face looks rather haggard, and pain is written thereon.

Examination.—Tongue clean. Stomach normally located. Some splashing herd in left epigastrium about the border of the costal arch. (He has himself noticed this splashing sound.) Water 6 oz., splashing to U. Liver and spleen normal.

Belly, nothing abnormal to inspection or palpation. No tenderness anywhere on deep pressure. October 11th.—Test breakfast E. and B. one hour; tube introduced; removed forty cubic centimetres of stomach contents, bread and fluid. Ordinary appearance; settled in two layers; bread one-quarter, fluid three-quarters. Reaction to blue litmus +; reaction to Congo +; reaction to Phoro-Gluc.-Van. +; free HCl, 32; total acidity, 58.

Diagnosis.—Atony of the intestines of long standing. Atony of the stomach. Much flatulence (dependent much upon the condition of atony of the digestive tract).

Treatment.—Dietary regulations; peptenzyme; nux vomica; massage.

October 21st.—Bowels moving regularly and spontaneously. The intervals of treatment were lengthened out, as good progress was made, at first to once a week, then once in two weeks, and finally once a month until June 25th, 1901, when he was discharged well.

August 20th, 1901.—He had been running around much in the heat the day before, had taken quite a number of cold drinks, and at dinner in the evening had eaten some cold watermelon. Later in the night he was seized with an attack of cramp colic. A physician was called, who gave him some composite tablets, and when I saw him the following morning (the 20th) he was considerably relieved. I prescribed a little rhubarb and soda mixture, with an addition of Hoffmann's anodyne, and kept him in bed. I saw him again in the evening, and he was better, all pain gone. As there was considerable flatulence I directed him to take an asafetida pill and to repeat the same to-morrow in the course of the morning. As a precautionary measure I directed a cold compress to be applied. The next day he was up, but was told to keep in the house for that day (on account of the heat outside) until he should have taken a more substantial meal the next morning.

October 14th.—Patient had another attack the night before, like the one of last August, consequent upon eating an inordinate amount of ice-cream on top of a very large dinner. He took several enemas, moved his bowels freely, and aplied a hot-water bag to his abdomen. When I saw him on the following morning (14th) he was rather better, but still suffered considerable pain —cramps. Gave him morphine sulphate, one-quarter of a grain, with directions to repeat in one hour if necessary. Saw him the same evening, and found him free from pain. The cramps had ceased after the first dose, and he had not required and had not taken another. Belly somewhat sore from the cramps, but no particular tenderness over the appendicular region or elsewhere. Some flatulence. To take an asafetida pill. The next morning he was up betimes, and after lunch went out to attend to his business. His bowels are regular, and he has passed several examinations for life insurance with satisfactory results. October 2nd, 1902. I saw him to-day while on a social visit. He has enjoyed health up to the present.

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—*New York Med. Journal.*

THE VAPOR METHOD OF ANESTHESIA.

BY JAMES TAYLOR GWATHMEY, M.D., NEW YORK.

THE stated meeting of the Medical Society of the County of New York was held at the Academy of Medicine on Monday, September 25th, 8.15 p.m. Dr. James T. Gwathmey read a paper on "The Vapor Method of Anesthesia." He portrayed the evolution in the administration of anesthetics from the time when chloroform was given "powerfully and speedily," and when an unmeasured quantity of ether was poured into the open cone, up to the present, when each drop of these powerful drugs is both measured and timed. Snow, Clover, Paul Bert, Junker followed in succession, and assisted in eliminating the unknown and placing anesthetics on a firm and solid basis. The Harcourt Chloroform Inhaler in England, the Braun Chloroform-Ether Inhaler in Germany, and the Gigliementi Oxygen-Chloroform Inhaler in France represent the very latest contributions towards the accurate administration of anesthetics. The objection to the French and English Inhalers is, that they are for chloroform alone and use closed masks with valves. The Braun Inhaler is the best, but the mask was undesirable. Dr. Gwathmey then exhibited his own inhaler, the unique features of which are that chloroform or ether can be given singly or combined in any desired proportion; the ability to increase or decrease the air or oxygen without, at the same time, increasing or decreasing the anesthetic; the mask, an anatomically correct-fitting face-piece, the rim of which is hollow and perforated around the inner margin to allow the vapor to escape; otherwise identical with a folding Esmarch mask. This is covered with four layers of gauze, over which is placed a piece of oiled silk or rubber tissue. A small opening is cut in the middle of this gauze, so that, during the induction period, a few drops of chloroform may be added as with vigorous alcoholics. Dr. Gwathmey's Inhaler gives a maximum 2 per cent. chloroform vapor with a minimum of .1 per cent.

The inhaler, which is made by The Kny-Scheerer Company, consists of three ounce bottles, in each of which are four tubes, varying in length from one that reaches the bottom of the bottle to one that penetrates only the stopper. These tubes represent four degrees of vapor strength. The longest, with the mask just described, has an estimated 1 per cent. vapor strength; the shortest, No. 1, representing a very attenuated vapor, one-tenth per cent. As the mask is not air-tight, the vapor cannot be compressed, thus avoiding the danger of an overdose. The advantages of this form of anesthesia are:

1. A pleasant induction stage.
2. Stage of excitement absent.
3. Pulse and respiration normal. No mucus râle or billowy breathing.
4. Complete relaxation.
5. Absence of unpleasant after-effects, on account of the attenuated vapor used.
6. The continued use of an attenuated oxygen or air and chloroform vapor of known percentage, to which an attenuated ether vapor can be added or substituted, when conditions require a change.
7. A possible change in the vapor percentage with the same flow of oxygen or air, by a change of tubes or by varying the pressure in the same tube, or by a combination of the two methods.

In the discussion following, Dr. John A. Bodine urged the desirability of overcoming the element of fear. Dr. Franz Toerck expressed himself as thoroughly satisfied with the method, having used it extensively. Dr. Wallace Lee said that he had often used this form of anesthesia, and had never seen a single case of nausea or any other bad after-effects.

THE AMERICAN MEDICAL ASSOCIATION BUREAUCRACY vs. PROPRIETARY MEDICINES AND vs. THE INDEPENDENT MEDICAL PRESS.

In the fierce controversy now raging concerning the relations of medical men to proprietary pharmaceuticals—a controversy which has been made the pretxet for an onslaught on the independent medical press by the rule-or-ruin element in the American Medical Association, aided by the *Journal* and its state journal satellites—the *Medical Standard* stands unequivocally for the following propositions:

1. That the attacks on proprietary medicinal preparations by members of the American Medical Association, by the *Journal* of the Association, and by the association's Council on Pharmacy and Chemistry, are inspired by men who fail to distinguish between the right and wrong in a system, and hence indiscriminately condemn the good with the bad.

2. That there are unscrupulous men in the proprietary medicine business, as in all other occupations and all professions; that this unscrupulous element is responsible for medicines which deceive and defraud, and that such medicines cannot be too strongly condemned.

3. That the unworthy and extortionate remedies are an in-

cident of the business, and not a natural product, just as the numerous failures and Shylocks in the medical profession are an incident and not a natural product of medical conditions.

4. That the denunciation of all proprietary medicines because some are bad is as unjust and criminal as would be the denunciation of all physicians because some are knaves.

5. That practically all remedies of merit are proprietary in character, in that nearly all are associated with the name of some manufacturer whose reputation is a guarantee of quality.

6. That, therefore, the essential distinction between so-called "proprietary" medicines and "non-proprietary" medicines is merely in the form of protection the manufacturer may deem most effective in his interest and not in the proprietary principle *per se.*

7. That a distinctive trade name, chosen by a manufacturer for the protection of a distinctive medicinal preparation, is as legitimate, proper, and, at times, necessary as a distinctive name for anything else.

8. That a proper trade name is the domain of medicine, as in that of foods or other merchandise, far from being "unethical," is the essence of good ethics, in that it serves to protect the owner from piracy, the physician from counterfeits and substitutes, the druggists from being victimized, and the patient from being irreparably damaged in purse and health.

9. That whatever will protect the physician in securing precisely the kinds or brands of drugs or preparations he specifies (and this is precisely the protection afforded by trade names), should have his support in justice to his own reputation and to the well-being of his patient, and this regardless of the fiat of men whose devotion to an ethical theory holds all related facts in supreme contempt.

10. That manufacturers, as happily nearly all do, should publish the essential constituents of their preparations as a guide to the physician, though not necessarily the "working formula," or such other specific information as would facilitate piracy; that a trade name should consequently be indicative of the manufacturer or his brand and not of the product itself.

11. That the publication of this information could by no possibility injure any reputable manufacturer, while it would serve to destroy the only excuse for the present crusade against proprietary medicines as a class.

12. That the crying need of reform is not so much with reference to proprietary pharmaceuticals as with reference to the "open" drugs and medicines of the market which are adulterated and degraded to a degree so notorious that medical men have been driven to prescribing reliable proprietary equivalents, even

though higher in price, or to specifying the goods of some particular manufacturer whose products are, as before stated, equally safeguarded by proprietary protection.

13. That even conceding, for the sake of argument, every charge against the proprietary principle in medicines, the incontrovertible fact remains that the physician has no moral or professional right to refuse to prescribe the drug or preparation he believes would prove of the greatest benefit to his patient, and this regardless of whether it is patented, or whether its name is trade-marked, or whether its exact composition is given, or whether it is advertised or not advertised either to the profession or to the laity, or whether it is approved or condemned by any association, committee, council, or group of persons acting for themselves or anybody else.

14. That the defamatory attacks on remedies universally prescribed by physicians of all degrees of distinction in accordance with the principle expressed in the preceding paragraph, are a libel upon the medical profession of America, and justify indignant protest against this attempt to terrorize and coerce medical men into obedience to the arbitrary decrees of a medical bureaucracy which aspires to absorb all power over things medical in this country, but which, unless all signs fail, is tottering to its fall before the fires of revolt everywhere evident among the mass of intelligent practitioners who in this, as in other matters, feel that their right to think and to do as they please, according to the dictates of their experience, or their conscience, must not be infringed by "machine" censorship or threats of "ethical" excommunication.

15. The defamatory policy of the *Journal* of the American Medical Association toward reputable remedies, which have defied the ukase of the Council on Pharmacy, and the persistent villification of the independent medical journals which have failed to fall into line with its ideas of medical propriety, are signs of autocracy gone mad. The establishment of branch "state" journals as side lights of the central luminary is clearly designed to rivet the bureaucratic fetters more firmly on the profession by crippling or annihilating the independent medical press.

The ring in control of the Association's affairs is pursuing a course as foolish as it is reprehensible; it can hardly hope to foreclose its assumed mortgage on the intelligence and rights of the medical men of America who have become very weary of dancing attendance on the royal medical family at the sessions of the American Medical Association, and weary also of relying on the Association organ for such recognition as the said organ in its superlative wisdom may deign to bestow.

The *Medical Standard* replies to the *Journal* and "state journal" propaganda of the past year with a paid subscription list showing a larger increase for 1905 than in any previous year in its history, and with a larger line of high-class advertising than ever before. For 1906 it has every prospect of unprecedented development.

The *Medical Standard* long ago announced its independence; it meant it then, and it means it now.—*The Medical Standard,* Chicago, January, 1906.

A MEDICAL ESTIMATE OF PRAYER.

At the recent annual meeting of the British Medical Association a testimony was given to the therapeutic value of prayer which should be recorded over against the skeptical views of some scientists. Dr. Theodore B. Hyslop, Superintendent of Bethlem Royal Hospital, has a reputation as a specialist in neurology and in the treatment of mental disease which adds weight to his words: "As an alienist and one whose whole life has been concerned with the sufferings of the mind, I would state that of all hygienic measures to counteract disturbed sleep, depressed spirits, and all the miserable sequels of a distressed mind, I would undoubtedly give the first place to the simple habit of prayer." It matters not, in Dr. Hyslop's view, what are one's theological conceptions —anthropomorphic or rationalistic—of the infinite environment with which prayer attempts to commune; the effect is the same: "Let there but be a habit of nightly communion, not as a mendicant or repeater of words more adapted to the tongue of a sage, but as a humble individual who submerges or asserts his individuality as an integral part of a greater whole. Such a habit does more to clean the spirit and strengthen the soul to overcome more incidental emotionalism than any other therapeutic agent known to me."

Mediæval superstition, connecting medical art with magic supposed to be learned from evil spirits, used the proverb, "*Ubi duo medici, tres athei.*" In some quarters this stigma is not yet entirely effaced, and medical men are perhaps not fully free of responsibility for whatever of it lingers. On the background of such a history Dr. Hyslop's testimony before an audience of specialists is highly significant of the trend of scientific thought away from materialistic conceptions of mind and of religion. "I believe it," said he, "to be our object, as teachers and physicians, to fight against all those influences which tend to produce either religious intemperance or indifference, and to subscribe, as

best we may, to that form of religious belief, so far as we can find it practically embodied or effective, which believes in 'the larger hope,' though it condemns unreservedly the demonstrable superstition and sentimentality which impede its progress."

Not many years ago Professor Tyndall's challenge of the religious world to try a prayer-test on a selected number of hospital patients was deemed by many, upon its being declined, to have refuted the claim of a healing power in prayer. As a physicist, Tyndall was, on this subject, not within his own province, as Hyslop, a psychologist, is. Religious men, to be sure, have made extravagant claims, and scientific men also have shot beyond the mark. But Dr. Hyslop's competence to speak in the name of science is unquestionable, and what he affirms as a discovery of medical science is identical with the immemorial faith of religion, that there is a place for prayer in the very nature of things. Not only does he find this place to be foremost among restorative agents. Of the religious enthusiasm which the nature of prayer is to feed and sustain he affirms that it "embodies the most healthy and preservative development of our social forces." Among the many notable utterances in which science is now evincing herself to be the handmaid of religion, these, the most recent, are as memorable as any.—*Outlook*, New York, Sept. 16th, 1905.

Leucocythemia Treated by the X-Rays.—C. H. Melland (*British Medical Journal*, July 1st) reports four cases of this condition in which the X-rays were used, with good results in three cases. In each case the spleen diminished in size with improvement in the character of the blood, the degrees of improvement differing in the three cases. The improvement in the general health of the patients, however, was more marked and of greater importance than the changes in the blood or in the spleen. He states that though it is too soon to assert that permanent benefit has been conferred in these conditions, it can safely be asserted that great amelioration of the conditions may be secured and that even if complete cure be not effected, the patients may have months or even years of comfortable existence.

OVERHEARD.

Sentimental Mother: "And if I should die, would you care to have another mamma in my place?"

Sensible Little Daughter: "Not at first, mamma; after a while I should like to have a nice, new mamma; but, then, I'd put hundreds of flowers on your grave, you know."

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Editorials.

SANITATION OF RAILWAY CARRIAGES IN ONTARIO.

FROM the fact that tubercular people travel by rail to and from the Gravenhurst Sanitarium, as well as other sanitaria outside this Province, and that many people suffering from tubercular diseases of the air-passages frequent railway carriages on the different railway lines in Ontario, some professional interest

inheres in the question of how far the railway carriage used in this Province may be an agent in the dissemination of tuberculosis. Up to the present time no Canadian bacteriologist has tackled this subject, and, unless the bacteriologist of some university in the eastern part of this country should supply the data, the editors of Canadian medical journals must seek them in the United States or in Europe.

However, it is reasonable to think that if the methods of cleaning and disinfecting Pullman and C. P. R. sleeping cars used in Ontario were applied to ordinary passenger cars, dining-cars and mail-cars, used by the Grand Trunk Railway and the Canadian Pacific Railway, then such cars would not be agents in the dissemination of tuberculosis. The only railway companies carrying passengers in Ontario are the Grand Trunk Railway and the Canadian Pacific Railway. The sleeping cars used by the Grand Trunk Railway on the Gravenhurst route, or any other of their lines in Ontario, are the property of the Pullman Company of Chicago. The cars of this latter company, placed on Ontario routes, are cleaned and disinfected after each trip at terminal points, Montreal or Detroit, according to the admirable system of cleaning and disinfection adopted and carried out by the Pullman Company.

Pullman cars operated on lines of health resorts, frequented by people seeking relief from tuberculosis, are fumigated after each trip with formalin, the berths being opened and the bedding spread so as to expose as much of its surface as possible. This regulation also applies to Pullman cars passing through any section of the country in which a contagious epidemic may be prevailing.

The cleaning of the ordinary passenger cars of the Grand Trunk Railway does not rest with the Pullman Company, but devolves on the company to which they belong. Ten years ago, a report on the hygiene of Canadian railways was presented to the Ontario Board of Health. (See Fifteenth Annual Report of the Provincial Board of Health of Ontario, 1896, p. 82.) The following extract from a letter sent by the Grand Trunk Railway of Canada was part of that report:

"Passenger cars are cleaned at the end of every trip. These trips are from one hundred to three hundred miles in length.

Sleeping cars, which run longer distances, are also taken care of by the porters in the cars. The floors of all ordinary passenger cars are washed daily, and every two or three weeks the panelling and ceilings are also washed. The upholstered seats are taken out, beaten and aired, about once a week. The closets are washed out with soft soap and water daily; but *systematic disinfecting* is not followed. In sleeping cars, the whole of the uphostering, bedding and carpets are removed from the car, beaten and aired once a week."

Now, inasmuch as the above method of cleaning Grand Trunk ordinary cars and dining-cars, without systematic disinfection, is still in force, and, inasmuch as tubercular people travel by these cars every day in the year, would it not be well for the Grand Trunk Railway Company to thoroughly and scientifically disinfect all their passenger cars in addition to the ordinary method of cleaning them?

Kinyoun, who recently made a report on a bacteriological examination of dust taken from American railway carriages, found the tubercle bacillus in dust, taken from a sleeping-car, in which cases of tuberculosis had been carried to the Southern health resorts, though there was no evidence that any such cases had been carried on the particular trip which preceded the collection of the infected dust. If the bacillus tuberculosis, in a viable condition, adheres to the dust of a disinfected sleeping-car, how long will it be found in an active, infective condition in ordinary passenger cars and dining-cars, which are rarely, if ever, disinfected? The answer to this question should be given by a competent bacteriologist. Our contention is this—when sanitary measures for the disinfection of sputum are enforced in a passenger car, the dust in the air is of secondary importance; but where carelessness in this regard obtains the danger of infection by the bacilli tuberculosis is a real one. Thus experiments conducted by Dr. J. H. Hance, at the Adirondack Cottage Sanitarium (*Medical Record,* December 28, 1895), show that five of the ten guinea pigs inoculated with dust from the oldest cottage, which was occupied by a man who had been complained of for promiscuous spitting, became tuberculous. Those inoculated with the dust from the other buildings gave negative results. Now promiscuous spitting is the rule instead of the exception in passenger cars. The conclusion is obvious.

What is true of the presence of the bacillus tuberculosis in passenger cars and dining-cars applies even more strongly to other infections. Thus Kinyoun states that samples of dust from the air of various American coaches were collected and were inoculated into 96 animals. One of these developed tuberculosis; 8 a pneumococcus infection; 4 a staphylococcus infection; 5 a general septicemia, and 1 malignant edema—76 animals gave negative results. It is interesting to note in Kinyoun's report that the greatest number of pneumococcal infections from the air of cars was obtained from smoking-cars, where promiscuous spitting is most indulged in.

A C. P. R. sleeping-car, making, for instance, the trip from Vancouver to Montreal, is cleaned at the latter terminal in the following manner:

(*a*) It is first stripped of everything movable; the only things not wood or metal, non-removable, being the plush arm rests.

(*b*) It is then thoroughly swept and brushed out.

(*c*) After which it is blown out by means of compressed air.

(*d*) In the meantime the equipment, which has been removed, is put through the same process.

(*e*) The car is then washed inside and out.

(*f*) Once a fortnight each car is fumigated with formalin, by means of a generator.

All travellers by this line, suspected of being ill, must be reported by porters, conductors, agents, or district superintendents and, even if a doubt exists, the compartment occupied by the sick person is closed. The equipment, however, is first removed, and if the illness should prove to be a serious contagious disease, the bedding is destroyed.

In reference to ordinary passenger cars, dining-cars, smoking-cars and mail-cars belonging to the C. P. R., a fortnightly disinfection with formalin should be employed, subsequent to the liberal use of soap and hot water to wood and metal surfaces.

J. J. C.

COLLOIDAL SILVER IN VARIOUS SEPTIC INFECTIONS.

Colloidal silver (Collargol), which is finely divided metallic silver, was introduced by Crédé as an antiseptic in 1898. By the process of trituration, metallic silver is converted into a soluble form, making, with water, a brownish solution. In this form it is used in internal hypodermic medication—½-1 per cent. (10-30 m.)—or the colloidal silver is made up as an ointment.

℞ Arg Colloid.....ʒ iv
Aq destill.....ʒ iɟ
Ceræ Albæ.....ʒ iis
Adipis Benzoinati.....ʒ iis

Simpler ointments may be made with vaselin or lanolin, the latter making one of the best bases.

The ointment is rubbed into the flexor surface of a limb for from twenty to thirty minutes. It has been found useful in the treatment of lymphhangitis, boils, septicemia, puerperal fever and other septic processes.

Professor Moosbruger has obtained good results from the medicinal treatment of appendicitis by collargol. His experience, which consists exclusively, or almost so, of the liberal employment of collargol, in acute and chronic cases of appendicitis has been obtained during the past five years.

In his series of 70 to 80 cases of varying severity, only 2 ended fatally, and, in both, diffuse peritonitis had set in when he was called. In the majority of his cases, the focus of disease was entirely cured. He now feels justified in giving a good prognosis in an appendicitis which has not progressed to a diffuse peritonitis, and in which a profound general infection is not present.

As to the mode of action of collargol, Moosbruger thinks that it combines with, or otherwise neutralizes, a certain proportion of the reabsorbed toxins in the blood, or the fluids of the tissues. The patient's color, facial expression and general condition improve, coinciding with an increased power of self-help in the organism. A favorable action on the focus of the disease and the neighboring tissues has also been observed.

A plausible explanation of the action of collargol was given by Schade lately. He proved that the heavy metals, under certain conditions of oxidation, act in the human body as carriers and transferrers of oxygen, and that, without change in chemical constitution, they play the part of the so-called ferments, the organic oxygen-bearers. Under these conditions they rob ptomains of their toxicity, since these substances are readily oxidized.—(*Munch. Med. Woch.*, Sept. 12th, 1905.)

G. F. (*La Presse Médicale*, December 30th, 1905) expresses a favorable opinion of the results he has obtained in puerperal infections from the intravenous injection of solutions of collargol. He employs a 1 per cent. solution and injects 0.06, 0.10, and even 0.15 centigrammes of collargol in grave cases of infection. Generally in four or five hours after the injection is given a slight, passing elevation of temperature is observed, and, occasionally, there are chills. However, Cealic and Dimitriu, who are promoters of this line of treatment in infections, think that the febrile reaction is a good sign, for it shows that the vital energy of the organism is sufficiently great.

G. F. prefers to inject the collargol into the internal saphenous instead of the median cephalic vein. The saphenous, having been exposed over a malleolus internus by an incision of three-quarters to one inch in length, is raised and incised; a canula is then introduced into its lumen and the injection of collargol pushed home. Two ligatures are placed around the vein and the external wound is afterwards sutured with catgut. This method of doing the operation prevents the escape of the collargol from the vein; it also obviates painful infiltrations, as well as sloughing at the site of the injection. In one case of puerperal infection, in which the patient had chills, a temperature of 104° F., filiform pulse and delirium, intravenous injection of collargol, done on two occasions, proved curative. In other cases, collargol caused the disappearance of septic fever, even after the disease had existed for some days.

Collargol may also be administered per os, the prescription being 15 grains of collargol in 6 ozs. of water, a tablespoonful every half hour or hour. In advanced cases, a stronger solution is used, containing 30 grains of collargol in 6 ozs. of water; 2½ drachms every hour. Crede ointment, a 10 per cent. prepara-

tion of collargol, is also rubbed into the flexor surfaces of the arms or thighs for thirty minutes.

When vomiting interferes with the retention of a solution of collargol, the medicine may be given in an enema. Thus, 15 grains of collargol in 4 ozs. of water may be administered in one enema, or may be divided into two equal parts and given as two enemas. J. J. C.

SPECIAL MEETING OF THE PROVINCIAL BOARD OF HEALTH.

THE Provincial Board of Health met at the office of the Board in the Parliament Buildings at 11 a.m., February 15, 1906. The following members were present: Dr. Kitchen, Chairman; Dr. Hodgetts, Secretary; Dr. Cassidy, Dr. Oldright, Dr. Thompson, Dr. Boucher, Dr. Douglas. The special objects of the meeting were to receive the report of the Committee of Legislation and the report of the Committee of Sewage and Water Supply (East.) As these committees were not ready to report, the Board adjourned until 2.30 p.m.

The Board spent the afternoon in committee of the whole, framing, amending and discussing several amendments to the Ontario Health Act. The amended Act will be presented to the Legislature during the present session. Several important amendments here were likewise made in the Cemeteries Act, which will likewise be presented to the Legislature.

The Board reassembled at 10 a.m., February 16, and spent an hour listening to addresses by Charles E. Rust, C.E., Toronto, and Dr. Charles Sheard, M.H.O., who spoke on the disposal of the sewage of Toronto. Mr. Rust expressed his own opinion in favor of the discharge of raw sewage into Lake Ontario from a trunk sewer, which would enter the lake near Victoria Park. If the Provincial Board of Health would consider this plan, it would simplify the scheme of disposing of the city sewage, and would certainly make it much less costly. Three other plans for disposing of Toronto sewage were described. Dr. Sheard disapproved of the plan of discharging raw sewage into the lake at Victoria Park.

The Board adjourned to permit the Committee on Sewage (East) to elaborate the report on the disposal of the sewage of

Toronto. On reassembling at 2.30 p.m. the report of the Committee on Sewage was presented by Dr. Oldright.

The committee approved of plan 2 of the City Engineer's schemes for the disposal of Toronto sewage. This plan embraces the construction of septic tanks in the vicinity of Ashbridge's Bay, near the Woodbine, and the purchase of 500 or 600 acres of land immediately north of Danforth Avenue in the vicinity of Woodbine Avenue, to be used as filter beds, the sewage to be lifted to this point. The land proposed to be purchased is of a sandy, gravelly nature, and admirably suited for the purpose. The figures in connection with the scheme would be as follows:

Capacity of intercepting sewers	100,000	gallons per day.
Capacity of septic tank	31,250,000	" " "
Capacity of pumping plant	37,500,000	" " "
Capacity of forcing main	25,000,000	" " "
Capacity of filter areas	25,000,000	" " "
Cost of high level sewer		$731,541
Cost of low level sewer		257,100
Cost of septic tank		344,700
Cost of force main		120,000
Cost of filter area		265,090
Cost of pumping station		355,000
Net total		$2,073,341
Gross total		2,384,342
Annual cost		76,000

The committee recommended Engineer Rust's scheme upon assurance that the soil is suitable and with the promise that the city will install properly constructed filter beds with thorough under-drainage, and will provide for the efficient maintenance of the same.

The report of the Committee on Sewage (East) was received and adopted.

Dr. R. P. Boucher and Dr. Charles Hodgetts had been appointed to make an examination of the water supply of the town of Prescott. They reported that Prescott water is polluted and recommended that the matter of purification by the proper authorities be at once taken up.

Dr. R. A. Reeves, Dean of the Medical Faculty of the University of Toronto, requested Dr. Kitchen, the Chairman of the Provincial Board of Health, to accept the position of vice-chairman of the Section of Public Health and Hygiene at the August meeting of the British Medical Association in Toronto. Dr. Kitchen declined the honor. The Board then adjourned.

J. J. C.

MEETING OF THE TORONTO MEDICAL SOCIETY AT ST. MICHAEL'S HOSPITAL.

THE Toronto Medical Society met at St. Michael's Hospital, at 8.45 p.m., January 18th, the President, Dr. Ralph Hooper, in the chair. Dr. Price Brown showed a patient, a gentleman, upon whom he had operated for deflected nasal septum, November 15th, 1905. The result was satisfactory, the left nostril, which had been occluded prior to the operation, being pervious. The operation, which had been done under chloroform anesthesia, was of a plastic character. The occluding septum in the left nostril was divided by an H-shaped incision, and, after being pushed away from its faulty location, was placed in a vertical position. A rubber splint was introduced to maintain the septum in its corrected position. Rubber was preferred to celluloid, as it is impermeable, and yet yielding. The case was discussed by Drs. Ryerson and Wm. McDonald.

Dr. Silverthorn exhibited three patients. The first had received so severe an injury to the right forearm that amputation had been deemed necessary. One of the wheels of a heavily-laden waggon had passed longitudinally over the man's forearm, crushing every shred of tissue on its anterior surface, except the pronator quadratus and the ulnar nerve. The skin, muscles and other tissues on the posterior surface of the forearm had been pulpified and had consequently sloughed. Amputation being refused, Dr. Silverthorn treated the injured parts antiseptically, and also practised skin-grafting. Owing to the absence of other tissues, some of the grafts had to be placed on the periosteum of the radius, and some on the periosteum of the ulna. The man's forearm had been successfully covered with skin. No muscular action was obtainable in the forearm, although several useful movements of the wrist and hand could be effected. A second specimen of conservative surgery exhibited by Dr. Silverthorn was in a young woman, from whom he had removed a myeloid sarcoma of the right shoulder-joint. A free removal of the upper end of the right humerus had been done, yet the patient could move her arm anteriorly and posteriorly, although, owing to the absence of the right deltoid muscle, horizontal movement of the right arm could not be made.

Dr. Silverthorn also showed a case of tubercular peritonitis, which had been improved by medical treatment. Drs. Dwyer, Oldright, McKeown and Chambers discussed this case, the general opinion expressed being opposed to surgical interference in tuberculosis of the peritoneum.

A patient with an eruption on the mucous surface of one of the cheeks, was exhibited by Dr. Fletcher (Secretary), who asked for a diagnosis of the case. Dr. Ryerson said he thought it was a case of psoriasis.

Dr. H. B. Anderson presented a man of about 50 years of age, a painter by trade, much given to the use of tobacco, whom he had treated for chronic myocarditis. He thought that la grippe might have been the exciting cause of the disease.

Dr. Dwyer discussed a case of pneumothorax, which had occurred in a youth of 17, as the result of an injury to the thorax. The result was yet in doubt.

Dr. A. Lorand, Consulting Physician of the Carlsbad Springs, Bohemia, who was present at the meeting, spoke at length on the etiology and treatment of diabetes. He was heard with much interest.*

Refreshments were served. J. J. C.

EDITORIAL NOTES.

Protection of Grade Railway Crossings.—A frightful accident occurred at a grade railway crossing, near Upton, Quebec, January 9th, 1906. The Portland-Montreal express train struck a carriage at the crossing, hurling the unfortunate occupants nearly a hundred feet into the air, killing and frightfully mangling three of them. There is nothing novel in the accident at the Upton crossing. In many of us the sentiment of pity, common to all, is briefly stirred by the recital; but we should scrutinize it more closely, for, to-morrow, lives near and dear to us may be crushed out at a grade crossing in Toronto. Railway companies are influential in quarters where influence is worth having. They stuff the pockets of legislators with passes;

* Dr. Lorand's pamphlet, "Le Traitement Rationnel du Diabète," was reviewed in this journal, September, 1903.

in a suit for damages the railway side of the case is defended by the best legal talent. The stockholders of railways call for dividends, and vote down expenditures for track improvements, which do not contribute to the earnings of the railways. To a railway company a grade-crossing is part of a useful public work, maintained at their expense—dangerous, if you will, when trains rush by on it; but, then, people crossing it in vehicles or on foot should refrain from frivolous conversation and reflect on the danger of their situation.

Graphology as an Aid in Making Out a Bill for Medical Services.—Although some people think that graphology is not a science, Dr. Quintard, Antwerp, thinks it has its uses in the art of making a diagnosis. Instances are given to show that a diagnostician can, in dealing with a new patient, derive more accurate information about his ailment from a study of the patient's handwriting than from the replies he makes to leading questions. Whatever the clinicians may think of this view, there can be no doubt that graphology may be useful to physicians when engaged in the delicate operation of making out a bill for medical services. For, in such cases, a physician naturally likes to have a clear notion of the real character of his patient, and graphology can reveal it, just as writing is reflected in a looking-glass. Therefore, before writing out a bill, a careful practitioner should, if possible, study the handwriting of his patient. If the finals of the words are partly juggled, the letters crammed together closely, with very little spacing, if there is little or no margin, and if he notices that the initials at the bottom of the page are written with a shabby, complicated flourish, the physician may conclude that his patient is a miser, and to keep on good terms with him he should make his charges low and use the minimum tariff. If the handwriting is fine, chaste, clear, without prolonged finals, with well-linked letters, one may conclude that the client has a noble, judicious mind, capable of appreciating the labors of the physician at their just value. Finally, if the letter is written in a large hand, widely spaced, showing plenty of white, with very few lines on each page, and very few words in each line, one may conclude that it is the writing of an individual who is not fond of calculating, and who would expect to be charged—a royal fee.

Hygiene and the Bedroom.—The ordinary hotel bedroom, or, for that matter, the bedroom in a good many private houses is not a thing of beauty; from the hygienic standpoint, it is a source of sadness. Dusty carpets, window curtains rarely cleaned, arsenical wallpaper, redolent of tobacco smoke, are not conducive to healthy dreams. The bed chamber of the twentieth century is to be a picture of simplicity, blended with taste. There will be no microbe-catching carpets to dust—just a washable rug beside the bed. The waxed floor will be mopped every morning with a damp, woollen cloth. The ceiling and walls of the bedroom will be painted white, with lacquer paint, which can be washed without spoiling the color. The window curtains will be of cotton or other washable fabric, and will be regularly sent to the laundry. The iron bedstead, with its woven-wire mattress, will contain just the needful quantity of bedclothes. Then a new feature for most of us will be that arrangement of the bedclothes introduced by the Germans, by which the upper sheet becomes a bag, in which the blanket is spread, so that only washable white linen comes in contact with the body of the sleeper.

John Burns and Vaccination.—Out of the hurly-burly of British politics John Burns has been thrown on the Cabinet tapis as President of the Local Government Board, which has charge of health matters in the United Kingdom, and, therefore, his views on sanitary and medical matters are of great importance. It appears that the following question was sent up at the end of one of his election meetings: "Will Mr. Burns vote for the repeal of the Vaccination Acts?" and his answer was, "Personally, I have always been opposed to vaccination, and I shall do my best in the direction of my own private views." Spoken like a man; but whatever Mr. Burns' private views on vaccination may be, and he cannot know much about that subject, his acceptance of office must be taken as evidence that he is prepared to administer the existing Vaccination Acts. However, the fact that an avowed anti-vaccinationist is in the hygienic saddle and riding the Local Government Board steed, looks very much like a snub to the members of the medical profession of the United Kingdom. Their ideas and his on vaccination differ *toto coelo*. Is it not time, that a Minister of Health should

have charge of medical and sanitary matters in the Local Government Board of England? Cannot British physicians unite even on the subject of vaccination? If Mr. Burns is true to his medical opinions, we may expect him to do his best to repeal the British Vaccination Act.

How Medical Advertising Affects the Physician.—A great deal of attention is paid nowadays to the advertising of proprietary medicines in medical journals. It will not be denied that much art and skill are employed in the manufacture of many of these preparations. It is, perhaps, regrettable that they are so numerous, but the physician, particularly if he be under forty, is not afraid of novelty in a drug, and will welcome it, so long as it holds forth the promise of victory over disease. As long as the drug manufacturer places before him in reputable medical journals a plain statement of the chemical composition and pharmaceutical character of a proprietary preparation, the reasonable physician does not object. His own studies in chemistry, physiology and pharmacology inform him whether or no the advertised drug is likely to accomplish the effects, claimed for it by its designer. His experience as a therapeutist will soon tell him whether it is more agreeable to patients, more potent in curative results than older arms of precision. Naturally, he does not care to be informed as to the applicability of a drug to the cure of diseases in pamphlets, labels or loose printed sheets. After studying the volumes of Stillé and Maisch, Butler and Brunton, and other pharmacologists and therapeutists of renown, he is loath to pick up ideas from the wrappers placed on packages of medicine. It might be more flattering to his self-esteem if the discovery of the fitness of an advertised drug for the cure of a special pathological condition were left to himself, instead of being suggested by the advertiser; but, anyway, if the suggestion appears in a medical journal, if the advertisement does not stare stonily at him from the columns of a daily paper, he feels that the manufacturer is not taking an unfair advantage, and that his representations may merit attention. The practising physician knows perfectly well that no matter what may be said by travelling agent, or written by advertiser; no matter what claims may be made in behalf of the new drug, even by well-known clinicians who have used it, the court of last appeal is himself. A drug may stand even in

the scales; it may show signs of might and worth. If the reverse be true, if the drug be of the gossamer variety—of little utility, made to sell—its vogue will be short. No self-respecting practitioner of medicine cares to prescribe a drug, regularly advertised in the daily papers, weekly journals and monthly magazines. Improbable statements appear in such advertisements, meant to capture the popular eye and fire the popular fancy. Even if he were inclined to try a preparation so advertised, he feels a sense of humiliation in placing himself in the same category with the patient for whom it is ordered. If he does conquer his repugnance and order it for some patient, is the latter not justified in proclaiming that the columns of secular journals are luminous with therapeutic gems, as well as other contributions to useful knowledge?

An Improved Form of Medical Society Meeting.—For some time back the medical societies of Toronto, to vary the monotony of their ordinary routine, have been devoting some of their meetings to the exhibitions of clinical cases at the city hospitals, followed by discussions. The writer, who attended a meeting of the Toronto Medical Society at St. Michael's Hospital, January 18th, 1906, was favorably impressed with the proceedings. The President in the chair, a well-seated, well-lighted room, free from noises, the exhibition of cases, illustrative of present-day practice, special and general, followed by discussion or criticism, sharp but not unfriendly—all disposed of in two hours—is as much superior to the old-time method of conducting a meeting of a medical society as the teaching of medicine and surgery by clinical methods tops mere didactic instruction. With the growth of the hospital in city, town and village, this new method of conducting the medical business of a medical society will naturally become general. The cases, medical and surgical, are at the hospital, the reports of the cases are kept there, promptly available when required by a speaker, the building is centrally located for most members, and, best of all, there is abundance of live material, with some not alive, to keep one's attention from wandering. A tariff of fees, a reception tendered to a distinguished foreign physician, or arrangements for the meeting of a great medical association may provide fuel for eloquence at ordinary medical meetings. To properly follow the trend of a medical or surgical paper calls for

clinical cases just as illustrations are called for in a medical book. To few medical men is it given to so express their ideas, that they can be clearly understood, unless they have examples by them to serve for further elucidation of the subjects. The peculiar propriety of the clinical meeting of a medical society at an hospital is, that the members who are not fond of talking can use other senses than that of hearing, and leave the meeting with a feeling that they have acquired proteid food for thought.

The Essentials of Cure in Tuberculosis.—Fresh air, sunlight and good food being the essentials in the treatment of tuberculosis, it would be a good thing if physicians were to preach the advantages of a fresh-air life to their tubercular patients. Life in a tent is just a return to the habits of our forefathers, sprung from the robust races who peopled Europe. It does not hurt anyone to sleep in a tent, though most people prefer a brick house. However, a tent is more easily ventilated than a mansion. Rebreathed air is an active poison, but most people, well and sick, have a horror of pure air in their homes, especially in their bedrooms. Yet fresh air during the night, as well as the day, is useful in preserving health and is an essential feature in the cure of tuberculosis. The method suggested by Dr. Cotting of raising the lower window sash a few inches, and inserting beneath it a board the width of the window secures a considerable ventilating space between the two sashes at their point of junction. By applying a board, slanting downward and outward to the top of the window frame, and lowering the upper window-sash a second ventilating opening is secured. A married lady (tubercular), who slept in a tent, erected on the shore of Lake Ontario, near Toronto, last summer and autumn (1905), was so much benefited by tent-life that she is spending the present winter —1905-6—in a tent, erected on the lawn, at the back of her home in Toronto. And why not? A double-roofed, double-walled Peterboro' tent, warmed by a stove, can be made quite comfortable, even in the coldest weather. Every Canadian who gets tuberculosis is not able to set up a tent in California or Colorado. And, even if he were, the essentials of cure are the same in Canada as in countries to the south and west of it. Besides, residence among strangers, in a strange land, can rarely, if ever, secure to the tubercular exile that kindly sympathy which assists materially in restoring health to the sick. J. J. C.

Obituary

MRS. CRAWFORD SCADDING'S DEATH.

On the morning of Wednesday, the thirty-first of January, Mrs. Scadding, wife of Dr. H. Crawford Scadding, passed away after an illness of only three weeks. Her untimely death was due to erisypelas complicated by pneumonia. Dr. Scadding and his little daughter have extended to them the heartfelt sympathy of the entire medical profession of this city in their intensely sad bereavement.

FAMOUS SURGEON, DR. FOWLER, DEAD.

Dr. George Ryerson Fowler, Brevet Brigadier-General and Surgeon on the staff of Major-Gen. Roe, of the National Guard, member of the State Board of Medical Examiners, and one of the best known surgeons of Brooklyn died on February 6th, Albany, N.Y.

Dr. Fowler had undergone two operations for appendicitis. His condition was most serious from the outset, owing to intestinal paralysis, which the operations failed to relieve.

At the outbreak of the Spanish-American war, Dr. Fowler applied for army service. His offer was quickly accepted, and he was made chief surgeon of the volunteer army, joining Gen. Lee, commanding the Seventh Army Corps. He sacrificed his large practice in Brooklyn, and served throughout the war, receiving his discharge in January, 1899, when he again took up his practice.

News of the Month.

BRITISH MEDICAL ASSOCIATION.

THE preliminary arrangements as to special fares, side trips, etc.

1. Fares, Going Dates and Limits.—(*a*) Domestic business certificate plan arrangements; free return regardless of number in attendance. Passengers going by rail, returning by R. and O. Navigation Co., or *vice versa,* rate to be one and one-half fare.

(*b*) European Business.—On presentation of certificate, to be prepared and signed by the Secretary of E. C. P. Association, and countersigned by the Secretary of the Canadian Committee, or the Secretary of the British Medical Association, one-way tickets to be issued at one-half lowest one-way first-class rail fare; round trip tickets at lowest one-way first-class rail fare between all points in Canada. Rates to Pacific Coast subject to concurrence of T. C. P. Association. Steamship lines to advise Secretary what, if any, additional arbitraries are required.

Dates of sale, July 1st to September 30th, 1906, inclusive. Final return limit, September 30th, 1906.

2. Extension of Time Limit.—On deposit with joint agent of Standard Convention Certificates, issued from points in the Maritime Provinces, from all points west of Port Arthur, and from points in the United States, on or before August 28th, 1906, and on payment of a fee of $1 at time of deposit, an extension of time until September 30th to be granted. Joint agency to be conducted in the name of G. H. Webster, Secretary, E. C. P. Association, will be kept open from August 21st to September 15th, 1906.

3. Side Trips.—Side trip tickets to be sold from Toronto to delegates from the Maritime Provinces, from all points west of Port Arthur and from the United States, on presentation of validated certificate, or deposit receipt, at lowest one-way first-class fare for the round trip, to all points in Canada. Dates of sale, August 23rd to September 1st, 1906, inclusive; return limit, September 30th, 1906.

Usual additional arbitraries *via* upper lake steamships to apply, viz., Going lake, returning same, $8.50 additional to be collected. Going lake, returning rail, or going rail, returning lake, $4.25 additional to be collected. Also usual arbitraries *via* St. Lawrence route for delegates desiring to return by steamer, on

presentation of tickets to purser, viz., $6.50 Toronto to Montreal; $3.50 Kingston to Montreal.

Via Northern Navigation Company on lines where meals and berth are not included, the rail rate will apply; on lines where meals and berth are included, rate to be single fare plus meal and berth arbitrary.

INTERNATIONAL MEDICAL CONGRESS.

ARRANGEMENTS are being completed with regard to this fifteenth Congress, which meets in Lisbon from the 19th to the 26th of April. The principal general addresses will be delivered by Sir Patrick Manson, London; Prof. Brissaud, Paris; Dr. Jose Maria Esquerdo, Madrid; Dr. P. Aaser, Christiania; Prof. Azevedo Sodre, Rio de Janeiro; Prof. Neumann, Vienna; Prof. Prince Jean Tarcharoff, St. Petersburg; Prof. E. von Bergmann, Berlin.

The different nationalities are well grouped, and we observe that the delegates from Great Britain, Canada, Australia and the British Colonies will have a common meeting-place.

As to the service of lodging, it will be in charge of M. Manuel Jose da Silva, Praca dos Restauradores, Palacio Foz, Lisbon, to whom may be addressed all correspondence on this subject.

Applications for membership will be received until the hour of the opening of the congress and during the congress, but in order to secure reductions granted by railways and navigation companies it is necessary to give your name as soon as possible. All such correspondence may be addressed to the Secretary-General, M. le Professor Miguel Bombarda, Nova Esola Medica, Lisbon.

Regarding the fetes and receptions which will be given in honor of the members of the congress, it is announced that there will be three general fetes and there will probably be several receptions and dinners de gala. A bull fight, according to the old Portuguese way, will be organized at the expense of the congress. The definite details will be published at a later date.

We understand that a number of Canadians have already decided to attend the congress. Any member of the profession in Canada who desires to join the Canadian committee is requested to communicate at an early date with Dr. A. McPhedran or Dr. W. H. B. Aikins of this city, who will be glad to furnish all available information.

Items of Interest.

The Quarterly Journal of Inebriety Changes Hands.—Dr. T. D. Crothers, of Hartford, Conn., has sold the *Quarterly Journal of Inebriety* to Richard J. Badger, of Boston, Mass. The *Journal* is the official organ of "The American Society for the Study of Alcohol and Other Narcotics." Dr. Crothers will still continue to edit the *Journal*.

The New York Post-Graduate Medical School and Hospital.—The Board of Directors of this institution have recently issued their annual report, and it is well worthy of careful perusal. The New York Post-Graduate Medical School and Hospital is doing good work, and, therefore, growing rapidly in popularity as a post-graduate teaching body.

Therapeutical Notes on New Remedies.—This is the title of a pamphlet issued by C. J. Hewlett & Sons, of Charlotte Street, London, England. This firm has been established since 1832, and, therefore, requires no commendatory word as to the goods they manufacture. They are the best, and the result of scientific chemistry. A copy of the pamphlet will be sent to any Canadian physician requesting the same.

An Important Decision.—Ichthyol Trademark.—The Federal Tribunal of Lausanne, Switzerland, recently gave its decision in an appeal against the decision of the Court of Appeal of Berne in the action brought by the Ichthyol Co., Hamburg, proprietors of the trademark "Ichthyol," marketed in the United States by Merck and Co., of New York, to prohibit Luedy & Co., Burgdorf, from infringing the trademark. The Lausanne Court rejected the defendants' appeal and confirmed the former judgment, which ordered that the defendant firm should no longer use for their products names containing in any way the characteristic word "Ichthyol." It was proved that the trademark "Ichthyol" is the legitimate property of the Ichthyol Co., and that only this company is able to supply the sulphur preparation known under the name "Ichthyol." The defendants had pretended to supply the same preparation as supplied by the Ichthyol Co., but the court stated that their product differed essentially in composition from the genuine article.—*Chemist and Druggist.*

Queen Alexandra's Statue.—The first statue of Queen Alexandra on English soil will be erected in the grounds of the London Hospital, to commemorate the completion of the rebuilding operations, which have cost £45,000. The sculptor will be George Wade, and the statue, which will be of bronze, will be of heroic size. It will cost £1,500, and of this sum £1,300 has been subscribed already by the committee, the staff, and a few personal friends.

The Canadian Association for the Prevention of Consumption.—The sixth annual meeting of the Canadian Association for the Prevention of Consumption and Other Forms of Tuberculosis will be held in the Railway Committee-room of the House of Commons on the 28th inst. The Hon. Senator Edwards will preside in the afternoon. In the evening a public lecture will be delivered in the Lecture Hall of the Normal School, by Dr. Arthur J. Richer, of Montreal, which will be illustrated with stereopticon plates, showing the stages of consumption, and some of the appliances now in use to check and cure the disease. The chair will be taken in the evening by His Excellency Earl Grey.

The New Asylum for Epileptics at Woodstock.—The Asylum for Epileptics at Woodstock, a new Provincial institution, has been completed, and on January 19th was formally handed over by the contractor to the Provincial Secretary's Department. It consists of two cottages, capable of accommodating seventy patients, and an administration building. Dr. Williams, of Lisle, is the superintendent. Mr. E. R. Rogers, Inspector of Asylums, and Mr. F. R. Heakes, the Government's architect, will inspect the building at once, and as soon thereafter as possible it will be officially declared opened with fitting ceremony. This is Ontario's first public institution for the care of epileptics.

Special January Issue of the Interstate Medical Journal.—The publishers of the *Interstate Medical Journal,* St. Louis, Mo., are to be congratulated upon their special January number. It is undoubtedly a credit to any medical publishing house. It is made up of well over two hundred pages of text, the sections covered being internal medicine, surgery, diagnosis, pathology and bacteriology, obstetrics and gynecology, pediatrics, orthopedics, neurology and psychiatry, laryngology and otology, dermatology and syphilis and opthalmology. The one issue is itself a volume, and there is not a page in the issue that is not replete with scientific matter. Congratulations to our friend, Dr. O. F. Ball, the Managing Editor.

New Department of Physics Toronto University.—Plans have been prepared for a new building for the department of physics, in connection with the Toronto University. It is expected that building operations will commence early in the spring. The total cost is estimated at $225,000. The project for the University Men's residences will take tangible shape during 1906. It is intended to erect four houses, each containing accommodation for fifty, at a cost of $50,000 each. A site has been selected on the corner of Hoskin Avenue and Devonshire Place, and plans are now being prepared. In connection with the department of botany it is proposed to erect plant houses, costing approximately $10,000. The probable site is on the east side of the ravine north of Hoskin Avenue. To provide space for the display of the collections in the departments of mineralogy and geology, President Loudon says a wing will probably be added within the year to the new Chemistry and Mining Building on College Street. In addition there is also the new General Hospital building in view for next year. The site has not yet been selected, but will undoubtedly be in the neighborhood of the Medical College so as to make clinical instruction convenient for the students.

Uric Acid Tophæ Treated with Magnesium Perhydrol.—Magnesium perhydrol is a new preparation, consisting of 15 per cent. magnesium peroxide, which is recommended in the treatment of gout and other forms of the uric-acid diathesis. Jaeger has found it of service in the treatment of uric-acid tophæ, and has used it in the following prescription: Magnesium perhydrol (Merck), 100 (3 1-4 oz.); sacchar. lact., ad, 500 (1 lb.). One teaspoonful in milk three times daily.—*Aerztl. Mitteilung.*, 1905, No. 36.

Action of Lecithin on Leucocytes.—Ladislaus Detre and J. Sellet announce that, after subcutaneous injections of lecithin containing serums into animals, a large proportion of these are rendered immune towards mercuric chloride. Post-mortem examination showed at the points of injection yellowish-white buttery masses which, in addition to concentric layers of lecithin, were mainly composed of leucocytes charged with globules of that substance to an extraordinary extent. Their appearance was not otherwise abnormal, and the authors think that by taking up lecithin in this manner the leucocytes acquire an exceptional degree of activity.—*Brit. and Colon. Drugg.*, xlviii, p. 258).

The Physician's Library.

BOOK REVIEWS.

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, London. Edited by T. Pickering Pick, F.R.C.S., Consulting Surgeon to St. George's Hospital, and to the Victoria Hospital for Children, London; 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 and Edinburgh, and to the Board of Education, South Kensington. New American edition. Thoroughly revised and re-edited, with additions by John Chalmers Da Costa, M.D., Professor of Principles of Surgery and Professor of Clinical Surgery in Jefferson Medical College, Philadelphia; Surgeon to the Philadelphia Hospital; Consulting Surgeon to St. Joseph's Hospital. Illustrated with 1,132 elaborate engravings. Philadelphia and New York: Lea Bros. & Co. 1905.

Dr. J. Chalmers Da Costa has brought out a new American edition of Gray's Anatomy. It gives one quite a shock to see a new, up-to-date Gray's Anatomy of 1,600 pages, brought out by Lea Bros. & Co. in 1905, when the second American edition of the same work, published by Blanchard & Lea in 1862, contained only 816 pages. Eliminations there may have been, but the changes and additions are so considerable, that the original work is barely recognizable in the new one. For instance, in the edition of 1862, the description of the Female Organs of Generation occupies 11⅛ pages, with 6 illustrations; in the edition of 1905 the same organs are described in 33½ pages, with 29 illustrations (both books being quartos). The illustrations form a prominent feature in the new edition. They number 1,132, and of these about 500 are new. Many of the old illustrations are recognizable, though improved by the addition of colors to designate arteries, veins and nerves.

The Latin nomenclature has been introduced in parentheses, following the names still used in English-speaking countries. This reform should be appreciated by writers for the medical press. If writers employing the English, German or other

language were to use the Latin nomenclature, in mentioning or describing organs, there would be no doubt as to their exact meaning. Although the pronunciation of Latin, as used by different nations, differs very much, written Latin is the same for all, and, in anatomy at least, should pass current among all physicians.

Special articles on histology and embryology do not appear in the new edition. With such a thorough revision, Gray's Anatomy should maintain its place for another generation at least.

J. J. C.

The Physiology and Therapeutics of the Harrogate Waters, Baths and Climate Applied to the Treatment of Chronic Disease. By WILLIAM BAIN, M.D. (Durh.), M.R.C.P. (Lond.), and WILFRID EDGECOMBE, M.D. (Lond.), F.R.C.S. (Lond.). London, New York, and Bombay: Longmans, Green & Co., 39 Paternoster Row, London. 1905. Price, 7s. 6d. net.

This book is divided into four sections and comprises in all about three hundred pages. Section one deals with the pharmacology and therapeutics of the natural mineral waters; section two with the subject of baths; section three, climate, and four, the treatment of chronic disease. The volume is, of course, interesting, as showing the therapeutic value of the Harrogate waters and baths, as against depending too much on treatment by drugs. The authors have given only facts supported by clinical experience, and can therefore be depended on. The subject is dealt with in a most methodical manner, the general principles involved being first taken up, followed by the physiological action, and lastly the therapeutic application.

W. A. Y.

The Eye: Its Refraction and Diseases. By EDWARD E. GIBBONS, M.D., Assistant Surgeon of the Presbyterian Eye, Ear and Throat Hospital; Demonstrator and Chief of Clinic of Eye and Ear Diseases in the University of Maryland, Baltimore. Vol. II. New York: The Macmillan Co. Toronto: Morang & Co. 1905. $5.00 net.

One has a favorable impression from the first opening of the book, for in type, paper and form it is a radical and pleasing departure from the usual medical text-book. In the arrangement of its matter there is just as striking a change, for the embryology and the anatomy of the eye and its appendages are dealt with separately instead of forming a preliminary to the study of the diseases of the individual parts. These sections are liberally illustrated, the most striking of the plates being taken from Testut's "Anatomy"—a work which our publishers might well have translated. In addition to the usual chapters on the diseases of the eye, there is one on ophthalmic migraine, and another on associated

diseases of the eye and ear. The illustrations of ophthalmoscopic conditions are far from being satisfactory; their coloring bears but the slightest resemblance to what is actually seen, but this is a defect common to nearly all works on the subject. J. M.

Progressive Medicine. A Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by HOBART AMORY HARE, M.D., assisted by H. R. M. LANDIS, M.D. December 1, 1905. Philadelphia and New York: Lea Brothers & Co. Six dollars per annum.

The December number is filled, as usual, with interesting discussions of recent medical literature. The first section deals with diseases of the digestive tract, including the liver, pancreas, and the peritoneum.

The second section is devoted to genitourinary diseases. Under "The Surgical Treatment of Nephritis" occurs the statement: "It is now evident that the anatomical changes commonly understood by the term chronic nephritis—those changes caused by toxins circulating in the blood and derived from the tissues—are not susceptible to improvement by nephrotomy or decapsulation.

In the section on general surgery the discussion on anesthetics is exceedingly interesting. While ether is thought to be the safest, yet no one anesthetic is considered suitable for all cases. The anesthetic must be selected for each indvidual case. Many writers report satisfactory experience from using the ether-drop method on a small, open chloroform mask, for administering ether.

The final section is given to practical therapeutics. It contains a full discussion of the various kinds of serum used in the treatment, or for the prevention, of disease. A. E.

Food in Health and Disease. By ROBERT F. WILLIAMS, M.A., M.D., Professor of Principles and Practice of Medicine in the Medical College of Virginia, Richmond.

Messrs. Lea Brothers & Co. have pleasure in announcing for publication early this month a completely new work on dietetics adapted to the use of practitioners and students of medicine, nurses and the laity.

The volume will be a convenient 12mo of about 350 pages. Its price has not yet been fixed, but it will probably be about $2.00, net, delivered to any address.

It is divided, for convenience, into two parts: Part I. dealing with food in health, and Part II. with food in disease.

In Part I. the needs of the body for different kinds of foods and the manner in which they are utilized are explained. The principles of cooking foods and detailed descriptions of the different articles of food in common use are given, with chapters

on the proper nutriment of infants, children, adults, and the aged.

Part II. deals with the variations from the normal diet in health, necessitated by the more common diseases, and includes a chapter on general methods to be observed in feeding the sick, as well as the special directions for nourishment in diseases of different kinds.

There exists to-day a need for a small, practical book on foods and how they should be used, which will give the facts, as known to-day, in a brief and clear manner, with the fewest possible technical terms.

The importance of a work of this kind, which is simple enough for a child to read and yet absolutely trustworthy and based upon the scientific achievements of accepted leading authorities, is obvious. Such books are in line with the best principles of hygiene and make for the betterment of the present as well as future generations.

A Manual of Diseases of Infants and Children. By JOHN RUHRAH, M.D., Clinical Professor of Diseases of Children, College of Physicians and Surgeons, Baltimore. 12mo volume of 404 pages, fully illustrated. Philadelphia and London: W. B. Saunders & Company. Canadian agents: J. A. Carveth & Co., 434 Yonge Street, Toronto. 1905. Flexible leather, $2.00 net.

Dr. Ruhrah's manual may be best described as being well written and altogether a practical and useful little volume. The section that most attracted our attention was that devoted to infant feeding, a subject which so frequently proves almost a stumbling-block to the busy practitioner. Dr. Ruhrah throws out lots of hints as to feeding which should prove of material assistance to his readers. The author also gives quite a number of prescriptions which he has found of greatest benefit in practice. The illustrations are capital and some inserts included in the book exceedingly useful for reference. W. A. Y.

Surgical Diagnosis. A Manual for Students and Practitioners. By ALBERT A. BERG, M.D., Adjunct Attending Surgeon to the Mount Sinai Hospital, New York. Illustrated with 215 engravings and 21 plates. New York and Philadelphia: Lea Bros. & Co. 1905.

This work is the most clear, modern and concise book which the reviewer has read upon the subject of surgical diagnosis. The author has availed himself very fully of the added light and knowledge regarding the early stages of disease-processes afforded by laparotomy, exploratory incision, radiography and bacter-

iology. Supported by the knowledge thus obtained and by the assurance begotten of aseptic methods, the surgeon exposes to view every organ and cavity of the body. Hence there arises need for close analysis and new classifications of clinical evidence. The work, while an excellent one for students because of its conciseness, lacks the fulness and fineness of distinction which the surgeon wants when he has occasion to consult a work of this kind. While in the main the language is perspicacious, and strictly scientific terms are employed having a correct significance attached to them, yet there are some exceptions. The term "chronic synovitis" is several times employed as if a definite disease were thereby denoted. As well might one employ the word "dropsy," meaning thereby a definite, pathological entity. A diagnosis has not been made until the underlying cause has been determined. The illustrations are clear, numerous, well-chosen and very helpful. The mechanical make-up is excellent.

B. E. M.

International Clinics. A Quarterly of Illustrated Clinical Lectures and Especially Prepared Original Articles on Treatment, Medicine, Surgery, Neurology, Pediatrics, Obstetrics, Gynecology, Orthopedics, Pathology, Dermatology, Ophthalmology, Otology, Rhinology, Laryngology, Hygiene, and other topics of interest to students and practitioners. By leading members of the medical profession. Edited by A. O. J. KELLY, A.M., M.D., Philadelphia, U.S.A., with the collaboration of Wm. Osler, M.D., Oxford; John H. Musser, M.D., Philadelphia; James Stewart, M.D., Montreal; J. B. Murphy, M.D., Chicago; A. McPhedran, M.D., Toronto; Thos. M. Rotch, M.D., Boston; John G. Clark, M.D., Philadelphia; John J. Walsh, M.D., New York; J. W. Ballantyne, M.D., Edinburgh; John Harold, M.D., London; Edmund Landolt, M.D., Paris; Richard Kretz, M.D., Vienna. With regular correspondents in Montreal, London, Paris, Berlin, Vienna, Leipsic, Brussels and Carlsbad. Volume III. Fifteenth Series. Philadelphia and London: J. B. Lippincott Co. 1905. Canadian agent: Chas. Roberts, Montreal.

We are glad to find the name of Professor McPhedran, of Toronto, as one of the contributors to Volume III. of this series of "Clinics." Our collaborator contributes a most able article of about six pages in length on "Mucous Colic, or Membranous Colitis." Mr. Sym, of Edinburgh, devotes a chapter on "Gonorrhea and Conjunctivitis," which is of unusual merit, but unfortunately too short. Our friend, Dr. T. D. Crothers, of Hartford, Conn., contributes ten pages or more to the discussion of "Injuries and Lesions Following the Toxic Use of Alcohol," and no one,

perhaps, in this country is better able to deal with that subject than is the editor of *The Journal of Inebriety.* Volume III. is fully the equal of its predecessors. W. A. Y.

Animal Heroes. Ernest Thompson Seton. Toronto: Morang & Co., Limited. Cloth, illustrated, $2.00.

Decidedly a gift book for a boy, written in short sketches in the author's happiest vein. The stories are illustrated with hoppers, crawlers and queer 'uns of all kinds, wild and tame. Sometimes the illustrator just throws on the page a fragment, sometimes completeness had an innings, and then a real "society" dude appears dressed for a party. Get the book for the boy, and surely through the stillness of night a voice will call from dreamland: "Daddy, I've seen things, please get me a drink." However, the game is worth the candle.

The Gambler. By Katherine Cecil Thurston. Toronto: Fleming H. Revell Company.

A well-written story of the life of a lovely girl; intensely interesting, with its bright bits of description of life in London and on the continent at the pace it is now lived. The interest never flags and a large circulation of the book is as assured as it is merited. W. A. Y.

A Manual of Physiology, with Practical Exercises. By G. N. Stewart, M.A., D.Sc., M.D., Edin., D.P.H., Camb., Professor of Physiology in the University of Chicago, with colored plates and nearly four hundred other illustrations. Fifth Edition. London: Baillière, Tindall & Cox, 8 Henrietta Street, Covent Garden. 1906. Canadian agents: J. A. Carveth & Co., 434 Yonge Street, Toronto.

The most prominent feature of this work is the combination of practical exercises suitable for the laboratory, with the ordinary descriptive text matter usually found in text-books. This method has many advantages for students, and it has been in a large measure responsible for the great popularity of this book. In some respects this method is of value to practitioners in reviewing separate chapters or subjects, as it gives a more practical and comprehensive idea without the necessity of consulting a special work on practical exercises.

The present edition has been completely revised, and in many parts rewritten. New matter has been added, especially in the chapters on the Blood, Digestion and the Central Nervous System. The illustrations are abundant, and are quite satisfactory in every respect. A. E.

The Signs of Internal Disease, with a Brief Consideration of the Principal Symptoms Thereof. By PEARCE KINTZING, B.Sc., M.D., Professor of Physical Diagnosis and Diseases of the Heart, Maryland Medical College; Physician to the Franklin Square Hospital, Baltimore, Md. Illustrated. Chicago: Cleveland Press. 1906.

It has been contended that the science of physical diagnosis cannot be learned from books. The personal method of instruction is doubtless the better one; but, as the author says, "The orderly setting forth of the ground work and a clear description of the phenomena on which are based the inferences and conclusions of physical diagnosis, are as necessary and helpful to the students as is the same work in any other department of science."

As all cannot take advantage of direct clinical teaching, a well-written book is a good second choice, and, when the voice of the teacher is stilled, what he has written remains.

Dr. Kintzing has covered the ground work well, has written of it well, and has made a judicious use of illustrations to strengthen his descriptions.

From a typographical standpoint the book is a creditable production. It deserves a large sale. J. J. C.

International Clinics. A quarterly of illustrated clinical lectures and especially prepared original articles on Treatment, Medicine, Surgery, Neurology, Pediatrics, Obstetrics, Gynecology, Orthopedics, Pathology, Dermatology, Ophthalmology, Otology, Rhinology, Laryngology, Hygiene, and other topics of interest to students and practitioners by leading members of the medical profession throughout the world. Edited by A. O. J. KELLY, A.M., M.D., Philadelphia, U.S.A., with the collaboration of Wm. Osler, M.D., Oxford; John H. Musser, M.D., Philadelphia; Jas. Stewart, M.D., Montreal; J. B. Murphy, Chicago; A. McPhedran, M.D., Toronto; Thos. M. Rotch, M.D., Boston; John G. Clark, M.D., Philadelphia; Jas. G. Walsh, M.D., New York; J. W. Ballantyne, M.D., Edinburgh; John Harold, M.D., London; Edmund Landolt, M.D., Paris; Richard Kretz, M.D., Vienna, with regular correspondents in Montreal, London, Paris, Berlin, Vienna, Leipsic, Brussels and Carlsbad. Vol. IV. Fifteenth Series. 1906. Philadelphia and London: J. B. Lippincott Co. 1906.

The first point of excellence in this, the closing, volume of the Fifteenth Series of International Clinics is the beautifully executed colored plate opposite the title page, illustrating "Localized Psoriasis." It is as fine a piece of color printing as we have seen in some time. The first lecture in the book is one by Dr. W.

S. Gottheil, of New York, on "The Treatment of Psoriasis," with illustrations. It is very practical, and is illustrated with four half-tone plates, showing general psoriasis, the circinate, annular and stellate forms, and psoriasis of the scrotum. Sir Dyce Duckworth contributes an excellent lecture on "The Later Stages of Cirrhosis of the Liver," and Dr. J. B. Deaver one, under Surgery, entitled "The Results of Operations, such as Gastroenterostomy, Pyloroplasty, etc., in the Treatment of Diseases of the Stomach."

W. A. Y.

Nervous and Mental Diseases. By ARCHIBALD CHURCH, M.D., Professor of Nervous and Mental Diseases and Medical Jurisprudence in Northwestern University Medical School, Chicago; and FREDERICK PETERSON, M.D., President of the State Commission in Lunacy, New York; Clinical Professor of Neurology and Psychiatry, Columbia University. Fifth edition, revised and enlarged. Octavo volume of 937 pages, with 341 illustrations. Philadelphia and London: W. B. Saunders & Company. 1905. Canadian agents: J. A. Carveth & Co., Limited, 434 Yonge St., Toronto. Cloth, $5.00 net; half-morocco, $6.00 net.

"Church and Peterson," as this now authentic work has come to be named, has met with a well deserved measure of success. It has already exhausted four separate editions, and again appears thoroughly revised and in somewhat new form. It is looked upon by many to-day as a most representative and authoritative work on nervous and mental diseases, and it deserves its reputation as such. The authors have from the first kept before them the necessity of making their volume accord with, as nearly as possible, all of the most recent advances in Psychiatry. New chapters on the Kræpelin Classification of Insanity, Manic-Depressive Insanity and Dementia Precox have been added with quite a number of new illustrations.

Ambulance Examination Questions. Being a Catechism on Warwick & Tunstall's First-Aid to the Injured and Sick. By D. M. MACDONALD, M.B., Surgeon-Lieut., 2nd Scottish Horse. Bristol: John Wright & Co. London: Simpkin, Marshall, Hamilton, Kent & Co., Ltd. 1905. Pp. 30. Price, 6d., net.

This unpretentious little pamphlet is designed to be a companion to Warwick & Tunstall's well-known book, and is more especially adapted to advanced first-aid pupils, assisting them to review their lectures and practical work and grasp the fundamental ideas of instruction in first-aid. To such it may be found useful.

C. R. D.

Text-Book of Anatomy. Edited by D. J. CUNNINGHAM, F.R.S., M.D. (Edin. and Dublin), D.Sc., LL.D. (Glasgow and St. Andrew's), D.C.L. (Oxon.), Professor of Anatomy, University of Edinburgh. Second and thoroughly revised edition. Illustrated with 936 wood engravings from original drawings, many printed in colors. New York: Wm. Wood & Co. 1905.

This book is dedicated by the editor "To Sir William Turner, K.C.B., in recognition of his eminence as an Anatomist and his influence as a Teacher." Dr. Cunningham's volume in its first edition received quite a warm reception, and now, three years after its publication, the author has had to almost rewrite it. Comparing the second edition with the first, it is readily seen that it has been very carefully revised. Quite a large number of illustrations have been added. The sections which have been most largely changed are those on the brain and nervous systems, the muscles, the lymphatics, the joints, and the genito-urinary system. Cunningham's "Anatomy" will soon be looked upon (if, indeed, it is not now) as one of the standard text-books on that subject.

Atlas and Epitome of Diseases of the Skin. By DR. FRANZ MRACEK. Philadelphia and London: W. B. Saunders & Co. Canadian agents: J. A. Carveth & Co., Ltd., 434 Yonge Street, Toronto.

The author deals with the various diseases in a concise and clear manner, which will be fully appreciated by students and the general practitioner. The illustrations are exceedingly fine, and would be of great service in reading any work on dermatology.

D. K. S.

A Text-Book of Physiology. For Medical Students and Physicians. By WILLIAM H. HOWELL, Ph.D., M.D., LL.D., Professor of Physiology, Johns Hopkins University, Baltimore. Octavo volume of 905 pages, fully illustrated. Philadelphia and London: W. B. Saunders & Company. 1905. Cloth, $4.00 net; half morocco, $5.00 net. Canadian agents: J. A. Carveth & Co., Limited, 434 Yonge Street, Toronto.

Everyone specially interested in physiology would expect a good book from Professor Howell, and I am sure no one will be disappointed who reads this one. The style is clear and simple. Facts are briefly stated, and theories carefully explained.

Physiology and the kindred sciences, chemistry and physics, are making rapid strides, and new literature on these subjects is abundant. The author states that the selection of what to give and what to omit is a difficult problem. He says there does not seem to be any sound reason why a text-book for medical students should aim to present only those conclusions that have crystallized

out of the controversies of other times, and ignore entirely the live issues of the day, which are of so much interest and importance, not only to physiology, but to all branches of medicine. With this idea in mind the author has endeavored to make the reader realize that physiology is a growing subject, continually widening its knowledge, and readjusting its theories.

This is one of the best books available on this subject, and we have pleasure in recommending it as a thoroughly complete and reliable text-book for medical students, and an accurate, up-to-date, and highly practical book of reference for practicing physicians. A. E.

Anatomy and Physiology for Nurses. By LeRoy Lewis, M.D., Surgeon to and Lecturer on Anatomy and Physiology for Nurses at the Lewis Hospital, Bay City, Michigan. 12mo of 312 pages, with 100 illustrations. Philadelphia and London: W. B. Saunders & Company. Toronto: J. A. Carveth & Co., Ltd. 1905. Cloth, $1.75 net.

This is an excellent text-book, containing a simple and comprehensive statement of the essentials of anatomy and physiology for the use of nurses. The descriptions are clear and accurate, the subject-matter well arranged, and the illustrations good. A special feature is the review questions at the end of each section. The press work is admirable. H. M'M.

Practical Massage in Twenty Lessons. By Hartvig Nissen, Instructor and Lecturer in Massage and Gymnastics at Harvard University Summer School; Director of Physical Training, Brookline Public Schools; Former Acting Director of Physical Training, Boston Public Schools; Former Instructor of Physical Training at Johns Hopkins University and Wellesley College; Former Director of the Swedish Health Institute, Washington, D.C., etc., etc.; author of "Swedish Movement and Massage Treatment," "A, B, C of Swedish Educational Gymnastics," "Rational Home Gymnastics," etc. With 46 original illustrations. 168 pages. 12mo. Philadelphia: F. A. Davis Company, publishers,, 1914-16 Cherry Street. Price, extra cloth, $1.00 net.

Many books are written on the authority of others, and are often compilations by a comparatively young and inexperienced author. "Practical Massage" has the merit of being written by a man with thirty years' experience as a masseur and teacher, and is, in fact, the result of his life's work. In twenty lessons the author gives much that is original in combination with the best and most useful "manipulations" and "movements" of other systems. Massage is based on plain physiological and anatomical

laws, and must not be confounded, as is too often the case, with "magnetism," "regular gymnastics," or "rubbing."

As a practical help in the treatment of the sick, this little book should find a place in the library of the physician, nurse, and masseur.

E. H. A.

Carbonic Acid in Medicine. By ACHILLES ROSE, M.D. New York and London: Funk & Wagnalls Co. 1905.

The use of carbonic acid gas for therapeutical purposes can be traced back many centuries. In modern times it has been employed by only a few persons, and its value in therapeutics is not generally understood. This work is an effort to describe the value and the mode of application of carbonic acid gas in medical practice.

The opening chapters deal with the physiology and chemistry of respiration, and the history of the use of carbonic acid gas in therapeutics. A description is given of its healing effects in such conditions as asthma, whooping-cough, dysentery, rectal fistula, chronic suppurative otitis and rhinitis. Many interesting cases are cited to show its value in these and in other diseased conditions.

The author appears to have succeeded in relieving or curing many of his cases. His success should encourage others to make a practical test of his methods.

Ayesha, The Return of She. By H. RIDER HAGGARD, author of "She," etc. Toronto: William Briggs. 1905.

This is Rider Haggard's latest production, and is indeed worthy of so noted a pen. It is a soul-stirring narrative of the adventures of two Englishmen in Thibet and the unexplored lands north of that country. They are in quest of a spiritual reality, an immortal named "She," "Ayesha," "Star that Hath Fallen," variously. Their quest is successful, and they find the object of their toil and love. It is a book which holds the reader's attention from cover to cover, and is of intense interest, especially to one who has read its forerunner "She." It is gotten up in very attractive form with several illustrations.

W. J. W.

BOOKS, PAMPHLETS, ETC., RECEIVED.

We have to hand Wellcome's Medical Diary and Visiting List for 1906. We can heartily congratulate Messrs. Burroughs Wellcome & Co., of London, Sydney, Cape Town and Milan on presenting such a complete and essential little book, full of pointers and useful information for the medical practitioner.

W. H. P.