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THE HYGIENE OF THE HOME.*

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In erecting a dwelling-house, special efforts should be made by the builders to secure dryness of the site. If the ground is dry and firm, and, if possible, underlaid with gravel or coarse sand, the site will be a naturally dry and healthful one. It is generally directed that dwellings should be erected so as to face the south, but this rule is objectionable, for, if the front faces towards the south the back of the house must face towards the north. If it is possible to secure it, an ideal location would be one in which the corners of the house point north and south, for, in that case, every window must receive direct sunlight at some time during the day, whereas, with sides facing directly north and south, the windows of the former receive no direct sunlight and the rooms are dull and cheerless. In general it may be said that a house should be so situated as to receive plenty of light and air. Shadows of adjacent buildings and trees should be avoided, so as to ensure ample exposure to light, as the darkening of rooms, caused by obstructions to light, makes gloomy rooms, which are injurious to the eyesight and the health of the occupants. As far as possible, sunlight should penetrate into every room of the house at some period of the day. The general arrangement and design of the home should, therefore, be made to conform to these requirements.

Of the greatest importance is the character of the basement of

* Read at meeting of the British Medical Association, Toronto, August 21-25, 1906.

the dwelling. The basement should extend beneath the entire house, and should, if subdivided, be provided with doors connecting all its subdivisions. Windows of sufficient size should be placed in the exterior walls of the basement, extending nearly to the top of the wall, so as to permit the entrance of light and the free circulation of the air.

Frank L. Packard, an architect, of Columbus, Ohio, says:

"The excavation for the foundation of the house should be made at least one foot larger on all sides than the walls to be built within the excavation, and trenches should be excavated at least 8 inches below the basement floor. These trenches should be made about 6 inches wider than the walls of the foundations. Extending around the outside wall, and on a level with the bottom of the trenches, lay a 3 inch soft tile drain, with proper fall to carry off any water that may come down from the surface. Fill the trenches with good coarse concrete the full width and depth of the trenches. This is known as the footing-course—one of the courses of masonry at the foot of the wall, broader than the courses above. The walls of the foundations may be of stone, brick, tile or concrete. In any event, they should be laid in mortar composed of good, sharp, clean sand and cement of good quality, all well bonded together, and all joints slushed up."

The foundation is intended to serve not only as a firm support to the building, but also as a barrier to the moisture and the damp air of the soil. Illuminating gas, escaping from leaking mains, has been known to enter a house by the basement. Besides, the air of the soil occupies the upper layers of the soil and fills all the interstices—as far down, at least, as the surface of the ground water. Decomposition and putrefaction are constantly going on in the soil, and the gases arising from these processes diffuse themselves through the soil. To prevent the entry of ground air or other deleterious gases into a basement, the late Colonel Waring, of New York, an eminent engineer, said:

"One of the safest materials for a cellar bottom and for the external packing of foundation walls is a clean, smooth, compact clay, which may be beaten into a close mass, and which has a sufficient affinity for moisture always to retain its retentive condition, for when used in the damp atmosphere of a cellar or about a foundation, it seems to offer a good resistance to the passage of impure air. In the cellar, of course, it may be covered with concrete for cleanliness and good appearance; but 6 inches of clay, well rammed while wet, will impede the movement of air to a degree with which ordinary cellar concrete can furnish no parallel. When clay is not available a good smearing of asphalt over the outside of the foundation wall and a thick layer of asphalt between two thicknesses of concrete for the bottom of the cellar will afford a com-

plete, though more costly, protection. Asphalt used in substantially the same way, if in connexion with a solid course of slate or North River blue stone in the foundation wall, above the ground level, will prevent the soaking into the structure of the moisture of a heavy soil."

Before the interior of the cellar is completed the waste-pipes and the drains for the plumbing fixtures and catch basins should be laid. The pipes should be of cast iron pipe, varying in size from 4 inches to 6 inches, provided with the necessary traps, clean-outs, and vents. A cheaper method is to use No. 1 salt-glazed sewer pipe, care being taken to see that the tile pipes are laid on a hard surface with a proper fall, and that all joints are well cemented. As a general rule, moderately hard, well-burned brick is the most serviceable material for outside walls. Sometimes, in exposed situations, it becomes necessary to cover an entire brick wall with a protective coating of paint, or even with a sheathing of tin-plate, owing to the fact that an unprotected brick wall becomes wet through by driving rain and does not quickly become dry again. For protection against dampness and cold, external walls should be built with an intervening air space, which acts like a double window. The outer and inner faces of the wall are joined at intervals by bonding bricks or ties of various materials, including hard, non-porous bricks, glazed bricks, and iron. A superstructure made of painted clapboard is often drier than one of brick, in an exposed situation. During hot weather clapboard walls are advantageous, because they cool rapidly after sunset. On account of the numerous joints and fissures in a frame wall, natural ventilation goes on through it very readily and to a considerable extent. The application of paint to walls of brick or wood, either with or without, completely checks the passage of air through the walls and limits natural ventilation. On the other hand, calcimine offers little obstruction to the passage of air. Wall papers are almost midway between paint and lime coating in their obstructive effect on the passage of air through walls. In northern climates, it will always be necessary to pay attention to the thorough construction of the walls of houses, so as not to permit a too large amount of natural ventilation taking place through the walls and a too great waste of heat.

The inside of the walls of a house should be of lath and plaster, thus providing a dead air space, which is a non-conductor of heat or cold.

All door and window spaces should be made tight, by means of felt strips and strips of zinc nailed and interlocked into the sheathing. The roof should be constructed so as to give a dead air space; it should be covered with felt preparatory to receiving the weathering material, whether it be shingle, slate, tile or metal.

All plumbing and gas-pipe fittings should be exposed, the pipes should be of the best wrought iron, put together with lead joints and tested so as to be airtight. The plumbing fixtures should be ventilated in the most approved sanitary manner, and the fixtures, without being expensive, should be of the best patterns.

The old fashioned floors made of boards entirely too wide and with open joints are never used in the modern dwellings. Floors can be made of hard pine, as well as of oak or maple. Narrow boards, evenly matched, fitted with elastic filler, and well beeswaxed, cost no more than a good carpet. If desired, rugs, which are easily handled, can be laid on some of the floors.

In finishing the rooms, covered corners should be used at the base at the floor level, and the angles of the ceilings and walls should be covered. Good plaster is best for the walls and ceilings. Wall papers should be avoided; when necessary, paint and enamel should be used. Rooms should be well lighted, the windows and doors extending well up to the ceiling. A judicious arrangement of the openings for light also provides for the ventilation of the rooms, by supplying cross draughts and a good circulation of air. As things go, however, a room cannot be ventilated in stormy or cold weather, unless it is provided with a working chimney flue. Whatever the system of heating a house may be—stoves, warm air furnace, hot-water pipes—it will be found that the presence of chimney flues in the rooms will facilitate the regular escape of vitiated air and the entrance of fresh air. When a warm air furnace is used to heat a dwelling, it is found that it is difficult to warm rooms which have no flues, because, in order to provide for the easy flow of warm air into the rooms, it is also necessary to provide for the escape of air from the rooms.

In probably no room in the dwelling is the evidence of correct hygiene looked for more expectantly than the bedroom. The ordinary hotel bedroom, or the bedroom in a good many houses, is not a thing of beauty; from the standpoint of hygiene it is frequently a source of sadness—dusty carpets, window curtains rarely cleaned, arsenical wall paper, redolent with tobacco smoke, are not conducive to healthy dreams. The bedchamber of the twentieth century is to be a picture of simplicity blended with taste. There will be no microbe-catching carpets to be dusted; just a washable rug beside the bed. The waxed floor will be mopped every morning with a damp woollen cloth. The ceilings and walls will be painted white with enamel paint. The window curtains will be of cotton or some other washable fabric, and will be frequently laundered. The iron bedstead, with its woven-wire mattress will contain just the needful quantity of clothes.

It is to be hoped, however, that less pretentious portions of the home will not be neglected. In a way, the most important parts of a dwelling are the basement and the kitchen.

The cleansing of the kitchen and its contents should be frequent and thorough. Garbage and refuse should always be kept under cover until removal, and this should be done methodically and at frequent intervals.

The automatic ventilation of the kitchen by a collecting cowl and heated flue is a praiseworthy feature of domestic economy. In Gouge's system of ventilation, the ventilating flue in the kitchen is heated by a gas jet, situated at the bottom of the flue.

As care has been taken by the builders in erecting a house to prevent the ingress of ground air and other deleterious gases into the basement, the housekeeper should also pay the greatest attention to the hygiene of the surfaces of this part of the dwelling, where the general over-seeing eye does not penetrate, as it does to the drawing room, where she receives her friends.

Selections, Abstracts, Etc.

HORACE WELLS.

Humanity's Greatest Benefactor, the Discoverer of Anesthesia.

BY BURTON LEE THORPE, M.D., D.D.S.

THE subject of this sketch descended from true New England stock, and himself possessed in a marked degree all those qualities which characterize a New Englander. His ancestors were among the earliest settlers of Windsor, Connecticut, under a name supposed to have been originally Wills, but in the progress of time changed to Wells. The grandparents of Horace were Captain Hezekiah Wells and Sarah (Trumbull) Wells. Captain Wells served with honor in the war of the Revolution; and was a man of much influence. He died in 1817. The old homestead, which he built in East Windsor, Connecticut, one hundred and seventy years ago, still remains in the family.

Horace Wells, father of Dr. Horace Wells, married Miss Betsy Heath, of Warehouse Point, Connecticut, and soon removed to Hartford, Windsor County, Vermont, where the subject of this sketch was born January 21st, 1815. This son was the oldest of three children, the other being Charles Wells, M.D., who practiced at Manchester, New Hampshire, and Mary, wife of Captain John Cole, a sea captain who resided in Medway, Massachusetts. Mr. Wells, soon after the birth of his first child, purchased a large farm at Westminster, Vermont, near Bellows Falls, on the Connecticut River. Here in a beautiful and romantic locality, and surrounded by every comfort his father could furnish, the childhood of Horace was passed. The parents of young Wells were intelligent, and, for that region, wealthy; and having the opportunity, gladly gave their children every advantage for moral and mental culture, sending them to the best schools, and sparing no expense to make them useful members of society. When Dr. Wells attained manhood he was peculiarly active in mind and of a generous disposition.

Young Horace was kept at a select school until he was thirteen years of age, and then went to Hopkinton, New Hampshire, where he spent a year in a private school for boys, kept by a Mr. Ballard, who entertained a very high opinion of the mental quali-

ties of his scholar. Much of his education, before commencing business, was acquired at the academies in Amherst, Massachusetts, and Waipole, New Hampshire. During these latter years he taught one district and many writing schools. While at the academy in Amherst he became converted and united with the church, and afterwards led a strictly religious life; he even at one period thought seriously of fitting for the ministry.

Young Wells manifested at an early day the traits so characteristic of the New England boy. He had a mind of uncommon restlessness, activity and intelligence. He early manifested great inventive genius and mechanical talent, and after reaching manhood was known in Hartford as quite an inventor. He constructed and patented several machines which would unquestionably have paid well if pushed upon the market; but he considered his work done when the ideal was embodied and in working order, and his restless mind, regardless of pecuniary considerations, flew off to try its powers upon some other subject of thought.

In the year 1834 he commenced the study of dentistry at Boston. Dental colleges were not then established, but Wells acquired the best professional education at that time possible, and after completing his studies opened an office in that city. The residence in Boston made him acquainted with medical men there, a fact which influenced him in seeking medical assistance at that place rather than in New York at the time when he announced his great discovery of anesthesia, an occurrence he afterwards had deep reason to regret. Still he was not frustrated in his main design, viz., letting the world know how valuable his discovery was, for his visit to Boston and statement of his case did result as he hoped in its reception by the world, yet in a manner greatly trying to one so artless and truthful, and so far removed from every taint of selfishness and dishonesty.

Wells's ingenuity led him to invent and construct most of his dental instruments, and the dexterity and judgment with which they were used soon made him popular, and he speedily took rank among the first in a city justly celebrated for its skilful dentistry. His professional brethren admit his high standing in the department to which he devoted himself.

In August, 1840, L. P. Brockett, of Brooklyn, New York, then a medical student at Hartford, went to Dr. Wells to have a molar tooth extracted. The operation was so difficult and painful that Dr. Wells remarked, "There ought to be some method of mitigating such suffering."

He had several students, among them John M. Riggs, of Hartford, and Wm. T. G. Morton, of Boston, the latter of whom afterwards was one of those who laid claims to the discovery of the principle of anesthesia. In later years Dr. Riggs was very active in the development of the idea which immortalized Wells, particu-

larly at the period when a little discouragement would probably have retarded, if it had not completely prevented, its development. Dr. Riggs was, moreover, honored by being the first individual who ever operated on a patient under the influence of anesthesia. He did this on Wells himself, by extracting a tooth. It was fitting that the head which gave birth to so great a thought should itself furnish the first practical clinical proof of its importance. Still, though very instrumental in aiding the great discovery, and most honorably connected therewith, Dr. Riggs ever honestly gave the credit to Wells, in whose brain the thought took its inception. Dr. James McManus, who has made a careful study of the subject, says:

"Professor G. Q. Colton gave a course of lectures on chemistry and natural philosophy in Hartford early in December, 1844. To popularize the idea as well as amuse the audiences at these lectures the exhibition of the effects of laughing-gas on willing subjects was made a special feature of the entertainment. Dr. Horace Wells, well known in Hartford as a skilful dentist, attended with his wife the lecture given the evening of December 10th, 1844. Dr. Wells inhaled the gas; the effect not being as pleasant as his wife wished for, she reproached him on the way home for taking it and making himself ridiculous before a public assembly. Dr. Wells went to that lecture to see, hear and learn. He inhaled the gas, and subsequently watched its effect on others.

"The exciting incident to him at the evening's entertainment was when Mr. Samuel A. Cooley, a well-known Hartford man, gave a lively exhibition of the effects of the gas by running and jumping about and falling, striking his legs against the wooden settees, and acting apparently perfectly unconscious of possible danger. After the effects of the gas had passed off, Dr. Wells asked him if he was hurt, and he replied that he did not know it at the time, but on looking at his legs found them bleeding from the injuries he had received. Dr. Wells, turning to Mr. David Clark, said: "I believe a man, taking gas, could have a tooth extracted or a limb amputated and not feel the pain."

"Before leaving the lecture hall Dr. Wells asked Mr. Colton whether one could not inhale the gas and have a tooth extracted without feeling any pain, and he replied that he had not given the subject any thought; that he had been giving laughing-gas for over a year and such an idea had not occurred to him, and he could not express an opinion. Dr. Wells then said that he was inclined to try the experiment on himself and have a troublesome tooth extracted if he would bring a bag of the gas to his office the next day. Late that evening Dr. Wells called on Dr. Riggs to tell him that he had attended the lecture of Professor Colton and with others had inhaled the gas, that Mr. Cooley had injured himself and was not conscious of it at the time, adding, If he did

not feel any pain, why cannot the gas be used in extracting teeth? A long discussion followed as to whether it would be right or safe for them to make an experiment with possible danger staring them in the face, but Dr. Wells was so confident and fearless that he agreed to take the gas and have a tooth extracted the next day if Dr. Riggs would perform the operation. As requested, the next morning Professor Colton, Drs. Wells and Riggs, made the experiment, having as onlookers, a Mr. Colton and Mr. Samuel A. Cooley, the star performer at the entertainment the night previous. Dr. Wells sat down in the operating-chair, took the bag in his hands, and inhaled the gas until he was insensible, when Dr. Riggs extracted an upper wisdom tooth. Dr. Wells remained unconscious a short time, and on recovering exclaimed, 'I did not feel it so much as the prick of a pin.' 'A new era in tooth-pulling.' 'It is the greatest discovery ever made,' and remarks of a similar nature, being, naturally, perfectly delighted with his successful experiment. Thus the not improbable value of nitrous oxide gas, as suggested by Humphry Davy in 1800, proved a certainty December 11, 1844, when the first surgical operation was successfully performed on Dr. Horace Wells while under its influence. On that day modern anesthesia* was given to the world, and nitrous oxide gas proved to be a blessing to suffering humanity and the forerunner of all other anæsthetics.

"Prof. Colton stated that later Dr. Horace Wells came to him to learn how to prepare the gas, that he gave him full information and advised him to go to Boston for necessary apparatus, as he could not furnish it. A few weeks after leaving Hartford he saw a paragraph in the papers announcing that Dr. Wells was extracting teeth without pain, and he stated on several occasions in connection with that paragraph how and when the discovery originated. Dr. J. M. Riggs testified that, 'We were so elated by the success of this experiment that we turned our attention to the extraction of teeth by means of this agent, and continued to devote ourselves to this for several weeks almost exclusively.'

"Dr. E. E. Marcey, a physician, testified that while a student at Amherst College he had inhaled the gas, and also the vapor sulphuric ether, and knew that the operation and effect of these substances were nearly similar, but he did not know that one or the other would produce insensibility to pain until Dr. Wells made the announcement. At the invitation of Dr. Wells he called at his office and witnessed the gas given and a tooth extracted, the patient showing neither excitement nor the slightest consciousness of pain. Dr. Marcey then suggested to Dr. Wells the use of sul-

*The word "anesthesia" was coined by Dr. Oliver Wendall Holmes in 1846, who wrote Dr. Morton: "Everybody wants to have a hand in the great discovery. All I will do is to give you a hint or two as to names or the name to be applied to the state produced and to the agent. The state should, I think, be called *anesthesia*. The adjective will be *anæsthetic*. Thus we might say the 'state of *anesthesia*' or the '*anæsthetic* state.'"

phuric ether, his impression being that it possessed all the anesthetic properties of the gas, was equally safe, could be prepared with less trouble, was less expensive, and could always be kept on hand. Dr. Marcey said he would prepare some ether and give him some of it, and also would make a trial of it himself in a surgical case that he expected to operate on in a few days. A few days later the ether was given to the patient alluded to, and an encysted tumor the size of an English walnut was cut from his head. Dr. Wells was present, the operation was successful, and conclusively proved the anesthetic properties of ether vapor. Dr. Wells then told of a conversation held with Dr. Riggs regarding the effects of both ether and gas, and gave the opinion of Prof. Rodgers, of Washington (now Trinity) College, that the vapor of ether was much more dangerous than that of the gas.

“At the urgent request of Dr. Wells I read what I could easily procure in relation to both articles and gave as my opinion that, as the gas was more agreeable and easy to inhale than the ether, it was, upon the whole, more safe, and equally efficacious as an anesthetic.” Dr. P. W. Ellsworth was also asked respecting the comparative safety of nitrous oxide gas and sulphuric ether, and he gave his opinion in favor of the gas, and advised Dr. Wells to confine himself to that agent. With ample evidence to substantiate his claim, a few weeks later, in January, 1845, Dr. Wells went to Boston to make generally known and to demonstrate his great discovery. He obtained permission of the elder Dr. Warren to address his class in the medical college, and at the close of his remarks he gave the gas to a boy and extracted a tooth. The boy made an outcry and the students hissed and cried ‘Humbug!’ although the boy on recovering said he did not know when the tooth was drawn. The first and only trial allowed Dr. Wells was denounced as a failure. If the surgeons of the Massachusetts General Hospital, or any of the medical or scientific men of Boston or the country, ever knew of the suggestion made by Sir Humphrey Davy, they evidently had forgotten it, or had not faith in his statement. Nor were they willing to treat seriously any attempt to investigate the anesthetic properties of gas.

“Dr. William T. G. Morton had been a student of dentistry with Dr. Wells in 1841 and 1842, but was living in Boston at this time, and renting an office of Dr. C. T. Jackson. About this period occurred an event which had a most important bearing on Wells’s future career, and which is mentioned because showing the reason why and how Wells, Prof. Charles Thomas Jackson and Wm. G. T. Morton (the three claimants) first came together.

“Dr. Riggs had become possessed of a new and peculiar solder for plate work, a great desideratum in dentistry, whereby eighteenth-carat solder could be made to flow on eighteen-carat gold. Wells proposed to set up an office in Boston, and by help of this thought

a great business could be done. The terms of partnership could not be agreed upon nor would Riggs part with his secret. Wells then set to work and speedily discovered a solder of equal quality except not quite as beautiful. With this Wells and his former student, Morton, went to Boston, opened an office, called on the chemist, Prof. Jackson (who for a round fee certified to the value and purity of the solder), and commenced business. This was what made Morton acquainted with Jackson, and shows why the aid of the latter was sought on a subsequent occasion. The partnership between Wells and Morton was brief, and the former returned to Hartford, leaving the latter in Boston.

"In the *The Boston Atlas*, October 23rd, 1844, appears the following:

"CO-PARTNERSHIP NOTICE.

"This certifies that the co-operation of Wells and Morton has been dissolved by mutual consent, October 18th, 1844.

"HORACE WELLS."

"Dr. Wells continued in the regular exercise of his profession until the year 1844, making great improvement in his department, and inventions outside of it. He wrote and published in 1838 a treatise called 'Essay on Teeth.' He built a beautiful cottage on Lord's Hill, in a spot at first supposed not particularly eligible; but his taste, cultivated by the romantic scenery of his younger days, soon developed the beauties of the situation, and a few years found the location and region around selected for some of the most aristocratic houses in the city.

"Both Morton and Jackson in conversation with Dr. Wells tried to discourage him, having no faith in his statements, and advised him to give up the use of the gas. Dr. Jackson, noted then as a chemist, treated the subject as lightly as did the medical students, calling it a humbug. That a dentist from a country town could appear in Boston and announce to the world that he had made such a grand discovery was not to be credited, and Dr. Wells soon learned that not one of the influential medical or scientific men in that learned city could be induced to interest themselves in investigating the properties of the gas or lend him any assistance whatever while he remained in that city. They preferred to hiss and cry 'Humbug!' rather than to give Dr. Wells a second chance to prove the value of his discovery. He returned to Hartford greatly depressed and in poor health, but in a short time was able to resume his practice. During that and the following year he continued to give the gas freely, and when not able from any cause to attend to the patients, he would bring or send them to the office of Dr. Riggs to have him give the gas.

"In the *Boston Medical and Surgical Journal* of June 18th,

1845, there was an article written by P. W. Ellsworth, M.D., of Hartford, Connecticut, on the 'Modus Operandi of Medicine,' in which he states that 'the nitrous oxide gas has been used in a number of cases by our dentists, and has been found to perfectly destroy pain and no unpleasant effects follow its use.' The unjust assumption of the Boston surgeons, that he had made a complete failure in the single experiment allowed him, and their contemptuous treatment of him and his claims, gave a set-back for two years to the general introduction of surgical anesthesia, and millions of sufferers were deprived of the use of a safe anesthetic for twenty years. At this time Hartford had no hospital or medical journal to push the introduction of this discovery, and for a time Hartford people alone realized that such a discovery had been made.

"Dr. Wm. T. G. Morton, while studying dentistry, lived in Farmington, Connecticut, and made frequent visits to Hartford as a student to recite to Dr. Wells. He was present when Dr. Wells gave his demonstration before the surgeons and class in Boston, and had frequent talks with him while he remained in the city. During the summer of 1845, he visited Hartford and called with Dr. Wells on Dr. Riggs to talk about the gas, and he wanted them to give him some and tell him how it was prepared. Dr. Wells referred him back to Dr. Jackson, who, he said, could prepare it for him, or tell him how it was prepared, as he knew all about it. In the summer of 1846 Miss Elizabeth Williams, of Hartford, met Dr. Morton in Stafford Springs, Connecticut; learning that he was a dentist, she told him her experience with the gas, and that Dr. Wells had extracted a tooth for her on the 6th of March, 1845. He asked her about the effect and operation of the gas, and gave no intimation to her that he had any knowledge of the gas, or any other anesthetic. Drs. Wells, Riggs and Terry continued to give the gas in their practice with success, and they were greatly surprised, when they learned that Drs. Jackson and Morton were heralded in the Boston papers in the fall of 1846 as the discoverers and inventors of a compound which, they stated, by breathing into the lungs, induced so deep a slumber as to enable them to perform the most painful surgical operations with entire unconsciousness on the part of the patient. Dr. Morton made his so-called discovery September 30th, 1846, when he extracted a tooth from Mr. Eben Frost, while he was under the influence of his pretended compound.

"He made known the result of his experiment to Dr. Jackson, and they found, as Drs. Mearns and Wells, of Hartford, had demonstrated nearly two years earlier, that by inhaling the vapor of sulphuric ether it would produce unconsciousness, and surgical operations could be performed without pain while under its influence. Soon after he called on Dr. Warren, who arranged for

him to test his compound on the 16th of October, when he made his first experiment at the hospital in a surgical case. Boston surgeons were at last convinced that anesthesia had been discovered, and Boston men were the discoverers. The managers of the Massachusetts General Hospital were now ready to claim for their institution the honor and credit of first demonstrating this great fact to the world, and Boston surgeons, Boston newspapers, and the public, were now very much interested and only too ready and anxious to assist the assumed discoverers in introducing their pretended discovery, and advising its use in general surgery.

"Dr. Morton wrote to Dr. Wells, October 19th, telling him of his discovery, stating that he had patented it, and wishing to know if he would not like to visit New York and sell rights to use it. Dr. Wells replied to that letter. October 20th, that he would be in Boston soon, and he and his wife took an early train the Saturday after, arriving in Boston about midday. After dinner he called on Dr. Morton, remaining with him about two hours. On his return Mrs. Wells asked him if Dr. Morton had discovered anything new, and he replied: 'No, it is my old discovery, and he does not know how to use it.' He said he perceived what it was on entering his room; he knew it was nothing but ether. On being asked if he would assist in selling his patent rights, he replied, 'No, he would have nothing to do with him.'

"Dr. Wells and wife returned home on the following Monday. The statement made in the letter of October 19th, to Dr. Wells, that he had patented his compound, was not true, and at the interview a few days later, in Boston, it did not occur to him that Dr. Morton intended to deprive him of the credit of the original discovery, but that he did claim the discovery and application of a new and more convenient agent. The possible money value that might accrue to them from the vigorous pushing of the discovery set the doctor and dentist to figuring out futures. They decided to apply for a patent, which the Patent Office records say was done in the names of Drs. C. T. Jackson and W. T. G. Morton, October 27th, 1846; but before the patent was granted, Dr. Jackson, fearing he might be censured or even expelled from the Massachusetts Medical Society if he took out a patent, made an assignment, which apparently gave to Dr. Morton all his right, title, and interest in the then assumed invention, but for which act he obligated Dr. Morton to pay him ten per cent. of all he made out of it, and later on, through his counsel, he demanded twenty-five per cent. of all the profits, both at home and abroad, which Dr. Morton refused to give.

"The patent was granted November 13th, 1846. Circulars were printed with the names of Drs. Jackson and Morton as the discoverers and inventors of a compound that later proved to be the well-known fluid sulphuric ether, and they were distributed

broadcast. Agents were sent out to sell the rights. The doctor, dentist, or anybody, qualified or not, who would pay the price, could buy the right to use this wonderful and powerful agent, the scale of prices being for cities of over one hundred and fifty thousand inhabitants, two hundred dollars; fifty thousand and under, one hundred and fifty dollars; cities under five thousand, thirty-seven dollars, for a term of seven years.

"The following advertisement was published in *The Boston Evening Traveler* of November 29th, 1846, signed by Drs. N. C. Keep and Wm. T. G. Morton:

"The subscribers having associated themselves in the business of dentistry would respectfully invite their friends to call on them at their rooms, No. 19 Tremont Row. They *confidently* believe that the increased facilities which their untied experience will afford them of performing operations with elegance and dispatch, and the additional advantage of having them performed without pain, by the use of the fluid recently invented by Drs. Jackson and Morton, will not only meet the wishes of their former patients, but secure to them additional patronage."

"This was a unique appeal to the Boston citizens for patronage, equaling, if it does not far surpass, many of the advertisements that are to be seen in the newspapers of our day.

"Soon after the extraction of the tooth for Mr. Frost by Dr. Morton, Dr. Jackson sent a letter to a friend in Paris, France, giving the particulars of his pretended discovery, stating that he had persuaded a dentist in Boston to administer the vapor of sulphuric ether to his patients when they wished to have teeth extracted, and they suffered no pain during the operation; and later a second letter, stating that it had been used in the Massachusetts General Hospital with great success. These facts he wished his friend to communicate to the Paris Academy of Sciences. Soon after the letters were sent there was a falling out between the Boston discoverers. The public then learned from their controversy of the bitter feeling existing, and found, also, that each one denied that the other had any just claim for the credit of the discovery.

"The Paris Medical Institute, in response to the letters sent by Dr. Jackson, and with the knowledge only of his claim and that of Dr. Morton, awarded to each one the sum of two thousand five hundred francs; to Dr. Jackson for the discovery of the principle, and to Dr. Morton for the application of it. The institute at the time knew nothing of the claims of Dr. Wells. While the controversy was going on so bitterly in Boston, Dr. Wells (in 1847) decided, partly on account of his health, to take a trip to Europe, and while there to interest, if possible, and to present his claim as the discoverer of anesthesia to, the English and Continental surgeons. While in Paris, he made the acquaintance of

the eminent American dentist, Dr. C. Starr Brewster, who was much interested in the subject, and through whose good influence the subject was again and properly brought before the French Academy of Medicine. The expense of this trip to Europe was paid by the purchase of pictures which Wells imported and sold on his return to the United States. On Dr. Wells's return to this country he found the influence of medical and scientific men, the professional journals, and newspapers were all in favor of sulphuric ether, and the tide running in favor of the claims of Drs. Jackson and Morton.

"Late in the year 1847 a new agent, chloroform, was introduced by Prof. James Y. Simpson, M.D., of Edinburgh, Scotland, and that for a time seemed likely to supplant sulphuric ether. Dr. Wells gave the nitrous oxide gas on January 1st, 1848, to Henry A. Goodale, and Dr. P. W. Ellsworth amputated his leg. Also January 4th, gave the gas to Mrs. Ganriel, and Dr. S. B. Beresford removed a fatty tumor from her right shoulder. Dr. Wells later in the month went to New York to visit the hospitals and to urge his claims with the surgeons in that city. The worry, annoyance and injustice done him by the rival claimants increased by the experiments he was making with different anesthetic agents, brought on a serious mental disturbance and under these influences, disheartened and despondent, he put an end to his sufferings, January 24th, 1848."

The following letter to Dr. Wells from his friend, Dr. C. Starr Brewster, arrived soon after his death:

"PARIS, January 12th, 1848.

"My Dear Wells:

"I have just returned from a meeting of the Paris Medical Society, where they have voted that to Horace Wells, of Hartford, Connecticut, United States of America, is due all the honor of having first discovered and successfully applied the use of vapors or gases whereby surgical operations could be performed without pain. They have done even more, for they have elected you honorary member of their Society. This was the third meeting that the Society had deliberated upon the subject. On the two previous occasions Mr. Warren, the agent of Dr. Morton, was present and endeavored to show that to his client was due the honor, but he, having completely failed, did not attend the last meeting. The use of ether took the place of nitrous oxide gas, but chloroform has supplanted both, yet the first person, who first discovered and performed surgical operations without pain, was Horace Wells, and to the last day of time must suffering humanity bless his name.

"Your diploma and the vote of the Paris Medical Society

shall be forwarded to you. In the interim you may use this letter as you please.

“ Believe me ever truly yours,
“ BREWSTER.”

Drs. Jackson and Morton from the start had persistently stated that the nitrous oxide gas was a failure; that it was not an anesthetic; and they also as persistently ignored the fact that Drs. Wells and Marcy had used sulphuric ether with success, but had decided, in consultation with Dr. Ellsworth, that as the gas was more pleasant and agreeable to take, as well as less dangerous, it would be better to continue its use in dental operations. The death of Dr. Wells left the field open for them, and as the new agent, chloroform, was making a very successful record, it soon became so popular that the use of gas was given up and by many forgotten.

Hartford had no medical school, hospital surgeons of national reputation, or professional journals, to compete with Boston, that had all these advantages, while the great influence of Boston surgeons, journals, and wealth were freely given to aid the Boston claimants in their attempt to rob Dr. Wells of the honor and credit of his discovery. Boston influence aided them in their successful appeals to the rich and the profession for remuneration, and Boston money helped them in winning and dining a memorable lobby influence in its attempts to get through Congress a bill granting them one hundred thousand dollars for the use of their pretended discovery. Through the efforts of the Hon. Truman Smith, United States Senator, and the members of Congress from Connecticut, the passage of the bill was defeated.

Soon after the introduction of chloroform, and the death of Dr. Wells, the use of gas was abandoned.

The surgeons and public were soon convinced that chloroform and ether were uncertain and dangerous agents. The frequent deaths reported and the ill effects that often followed their use, caused a feeling of dread on the part of both patient and operator, so that comparatively few cared or dared to risk taking either or giving either of them. From 1848 until 1862 the longing for a safe anesthetic was universal. Again Prof Colton appeared before the public as a lecturer and exhibitor of laughing gas. In his lectures he related the history of the discovery of anesthesia by Dr. Wells, and after his lecture in New Britain, in 1862, he gave instructions to Dr. R. C. Dunham, and he introduced the use of gas in his practice there, and in Hartford; and at a private entertainment to a specially-invited party in New Haven, June, 1863, he related the history of the discovery of anesthesia by Dr. Wells.

Dr. J. H. Smith, for many years treasurer of the Connecticut

State Dental Association, was present, and then offered to try the gas again if Colton would administer it. Colton said he would gladly do it, as he wished to again demonstrate what could be done with the gas. Their first patient was an old lady, for whom they extracted seven teeth; after recovering from the effects of the gas, she was so pleased with the result that she allowed Colton to announce to his next audience her name and that she had had seven teeth extracted without pain, and without any ill or unpleasant effects from the gas. In three weeks and two days from that time Drs. Smith and Colton extracted over three thousand teeth.

Their success induced Prof. Colton to abandon the exhibition and to establish The Colton Dental Association in Cooper Institute, New York, devoted exclusively to the extraction of teeth with the gas.

In a pamphlet published by Dr. Colton in 1866 he says: "Whatever credit I deserve in connection with this matter is derived from the fact that I revived the use of gas, after it had been condemned, dead and forgotten as an anesthetic, from 1848 to 1862. In this revival and demonstration of the value of gas as an anesthetic is not the world practically indebted to me for its use? If I had not revived it, by whom would it have been done? That poor Wells failed to convince the world of its value does not militate in the slightest degree against the honor he deserves as the discoverer of anesthesia? He did all that a man could do under the circumstance."

Dr. Colton's great faith, and the co-operation and good work done by Dr. Smith, encouraged the dental profession to again take up the use of gas, and from that time on its use has been general all over the world. It is only those who have had to undergo severe surgical operations that can fully realize what a great blessing the discovery and introduction of anesthesia is to the world, and it is only the surgeons now living that were in practice over fifty years ago, that can fully appreciate and realize the blessing this discovery is to the profession.

Several years after Dr. Wells proclaimed and demonstrated his discovery Dr. Crawford W. Long, of Georgia, discovered that he had discovered as early as 1842 the properties of sulphuric ether, and had performed an operation on a patient while under its influence. This information was not given to the public until December, 1849. He says in referring to his delay in making the fact known: "I leave it with an enlightened medical profession to say whether or not my claim to the discovery of anesthesia is forfeited by not being presented earlier; and with the decision which may be made I shall be content." It is possible that many surgeons in different parts of the world, at nearly the same time, or in the remote past may, with the aid of some agent, have per-

formed surgical operations painlessly as claimed by Dr. Long, but failing to publicly announce their success the world gained no benefit. Dr. Wells discovered, demonstrated and proclaimed the fact at once; and then within one month's time, went to Boston to make it generally known. The public should not be allowed to forget that the simple, honest desire of this dentist was to give his discovery to all, to be "free as the air we breathe." The motive that actuated Drs. Jackson and Morton, when they put their assumed invention on the market, was to get money. Its commercial value was its dominant idea, and it was well worked up. Dr. Jackson, sneaking behind the cover of an assignment of his rights in order to hold his membership in the Medical Society, demanded twenty-five per cent. of all the profits, both at home and abroad, from Dr. Morton. This resulted in a *Kilkenny fight*, each denouncing the other as a fraud. A bitter controversy followed, each claimant having friends enough to furnish the medical journals and newspapers with lively reading for years after.

Eighteen years after the death of Dr. Wells there appeared in the *New York Medical and Surgical Reporter* of January 6th, 1866, a report made by Dr. J. M. Carnochan, chief of staff in the New York State Emigrant Hospital, of three surgical cases that he performed, the patients being under the influence of nitrous oxide gas given by Dr. Colton, and February 10th, of the same year, he reported four more operations upon adults, making in all seven successful capital operations under the influence of the gas. After the first operation he said: "I have no hesitation in stating that the nitrous oxide gas as an anesthetic is far superior to either chloroform or ether; the operation being attended by no nausea or sickness, and without the dangerous effects often incident to chloroform and ether. It is not improbable that had Wells lived and had the boldness to follow up his early successful experiments, chloroform and ether would never have been thought of as anesthetics." In Dr. Carnochan's second report, giving a resume of seven (7) capital operations under the influence of nitrous oxide gas, he says: "I have also during this time used chloroform and ether in many operations, and my opinion in regard to the superiority of the nitrous oxide gas as an anesthetic is still unchanged. I believe, however, that there is great room for improvement in the mode of administration of the gas."

The success attending the revival of the use of the gas, and the testimony given by the surgeons in New York and elsewhere, was simply a repetition of the success attained by Dr. Wells while he was alive and able to attend to his practice in Hartford.

The General Assembly of Connecticut, in 1847, passed resolutions in favor of Dr. Wells as the discoverer of anesthesia, and declared that he was entitled to the favorable consideration of his fellow-citizens, and to the high station of a public benefactor.

The Court of Common Council of the city of Hartford passed resolutions to the same effect. The physicians and surgeons of the city united in a testimonial declaring their belief in the justice of the claims of Dr. Wells. The Paris Medical Society, January, 1848, voted that to Dr. Horace Wells, of Hartford, Connecticut, is due all the honor of having first discovered anesthesia.

The testimony of Valentine Mott, M.D., of New York, December, 1852, is that Dr. Wells is entitled to the credit and honor of the discovery. R. D. Massey, M.D., Cincinnati, Ohio, in a letter to the Hon. Truman Smith, United States Senator from Connecticut, December 24th, 1852, says: "I have long regarded Dr. Wells as entitled to the credit, and to the pecuniary award, if any such consideration is to be made, for the invaluable discovery of anesthesia."

Dr. C. H. Haywood, who was house surgeon in the Massachusetts General Hospital at the time Dr. Morton administered his pretended compound there, in a letter to U. S. Senator Truman Smith, concludes with these words: "But before all let full and ample justice be done to that noble genius which first conceived the grand idea which has been the basis of all the experiments and the father of all the discoveries. To the spirit of Dr. Horace Wells belongs the honor of having given to suffering humanity the greatest boon it ever received from science."

In the early days it was difficult to prepare the gas in large quantities, or to keep it on hand any length of time. Soon after the revival of its use, in 1862, many improvements were made in apparatus for making gas, and later, when the process was so perfected that dealers could furnish the gas to the profession in liquid form, in iron cylinders holding from one hundred to fourteen hundred gallons, to be used from as desired, without danger of waste, loss of power or purity, all the former objections to its use were removed.

Prof. S. D. Gross, of Philadelphia, some years ago, when speaking before the American Medical Association, said that "Dentistry is the most important specialty in medicine. Many people come into the world and go out of it, who never require the services of other specialists; but no child is born who does not sooner or later require the service of a dentist." True and true as this statement is, equally true is the statement that modern anesthesia, in all the varied modes of its administration, is undeniably the result of a dentist's heroic experiment and discovery. It is also sadly true that it was two years after the discovery, and after repeated successful operations in the hands of Hartford dentists, before Boston surgeons could be induced to accept the fact that an anesthetic had been discovered.

Dr. James Y. Simpson, of Edinburgh, Scotland, was the only

man connected with the introduction of anesthesia who had a remarkably fortunate life. He was eminently successful in his profession, acquired wealth, was created a baronet, and was probably better known all over the world for a while than any one else connected with the discovery. The last professional article he gave to the public was written by dictation, while on his sick bed, in reply to a bitter and unjust attack made upon him by Dr. Jacob Bigelow, of Boston. It was published in the *Boston Gynecological Journal*, May, 1870. He writes:

“An American dentist (Wells) works out to its practical results the suggestion published in England half a century before, by Sir Humphrey Davy, and which you seem to wish to efface from anesthetic records; and he travels a long distance to place the important results before the Medical School at Boston and some surgeons at the Massachusetts Hospital. There is a slip in the single experiment allowed him. He is spurned and hooted away. In doing this, the Medical School of Boston thus delays the whole subject of artificial surgical anesthesia for a couple of years. Was not the Medical School of Boston then, in your violent language, ‘chargeable with the continuance of operative tortures’ for that period much more than Sir Humphrey Davy? Did not your school stamp out and thus prevent for two years more the most beneficent discovery which has blessed humanity since the primeval days of paradise?”

Sir Benjamin Ward Richardson says in his monograph, “The Mastery of Pain”:

“It was fortunate that ether came in before chloroform: because if chloroform had come in first, the number of deaths from it would probably have put a stop to anesthesia at once.”

It is infinitely more fortunate that gas came in before ether, for the demands for its use are more urgent and general, and the deaths from it do not number more than one in over a million. There is no doubt if Dr. Wells had been a resident of Boston, an M.D., and a member of the staff of the Massachusetts General Hospital, his discovery in 1844 would have been quickly accepted. As a stranger and a dentist, his claim as a discoverer and the evidence he had to sustain it, as well as the prediction made by Sir Humphrey Davy many years before as to the probable properties of the gas, could not awaken enough interest in the minds of the stupid, stubborn, and jealous men that he appeared before to induce them to make another trial of the gas. They condemned it as a humbug, and suffering humanity was deprived of the blessing of an agreeable and safe anesthetic for over twenty years.

The record of millions of successful operations made while under the influence of the gas; with evidence accumulating daily, all over the world, that the gas is a safe and reliable anesthetic,

and abundant testimony to prove that Dr. Wells was the first to submit to a surgical operation while under its influence, are facts that cannot be blotted out by the efforts of magazine writers that either ignorantly or wilfully ignore them, nor does the inscription on the ether monument that stands in the public garden in the city of Boston negative the claims of Dr. Horace Wells.

The monument in Boston commemorates the discovery of anesthesia by inhalation of ether as first proved to the world at the Massachusetts General Hospital, October, 1846. It is a beautiful work of art, with bas-relief pictures that tell to the onlooker the great blessing that some one had given to suffering humanity. The inscription tells an untrue story, and the stranger seeks in vain for the name of the world's great benefactor.

On Bushnell Park in Hartford, there stands a monument erected by the State of Connecticut and the city and citizens of Hartford, commemorating this great discovery of anesthesia first given to the world in Hartford, in 1844, with the name inscribed and a portrait statue of Dr. Horace Wells, to whom alone belongs the honor of its discovery, and who gave it to the world to be "as free as the air we breathe."

At a memorial meeting held in Philadelphia, December 11th, 1894, under the auspices of the American Dental Association, to commemorate the fiftieth anniversary of the discovery of anesthesia by Horace Wells, a committee was appointed, on motion of Dr. Robert Huey, to erect in Washington, D.C., a permanent memorial to the discoverer. It is a bronze bust, the work of J. Scott Hartley, sculptor, of New York. The cost was one thousand dollars, the contribution from members of the dental profession of America. The bust is permanently deposited in the Army and Navy Museum in the national capital.

The Connecticut State Dental Association decided to commemorate the fiftieth anniversary of Wells' discovery of anesthesia. This was held at Hartford, December 10th, 1904, under the auspices of the Association. Prominent dentists and laymen were present to do honor to the occasion. Following the banquet the assembly unveiled a memorial tablet which was contributed by 270 American dentists and presented to the city of Hartford.

Horace Wells was interested in natural history, especially in ornithology, a branch in which he was well posted and on which he gave frequent lectures to the public.

Dr. Wells died in New York on the 24th of January, 1848, aged 33 years, at a period when his claims were being acknowledged by Europe and America, and just as he received the announcement that the French Academy had honored him with their diploma of recognition. He went to New York a few weeks before his death for the purpose of introducing anesthetics in the hospital and in dentistry. But the impression that chloroform

was a better agent than nitrous oxide gas or ether led him, with his usual zeal, to experiment upon himself to a dangerous extent with this powerful and almost unknown agent. By this his mind is believed to have been injuriously affected, and this was soon conclusively indicated by acts wholly foreign to his nature. His unfortunate end, and the circumstances attending it, consummated the proof of this point—his reason had been upset, and there was nothing to stay his own hand that cut the thread of his existence.

He was buried in the North Cemetery, in Hartford, where his grave will in years to come be visited and honored by those who revere the memories of the benefactors of mankind, among whom Wells certainly was not the least.

His widow and only son survived, who, with little pecuniary ability or foreign aid and relying only on the force of truth, contended eighteen years against the power of wealth profusely lavished, and all the machinery usually brought to bear in such cases; nevertheless, truth slowly, but surely, won its way, and the discovery of Wells was acknowledged by the medical and surgical profession and by the whole scientific world.

In 1844 Horace Wells gave to the world his wonderful discovery that surgery could be divested of pain, a discovery pregnant with untold value to the world, but of almost unmingled woe and sorrow to himself and his afflicted family. His widow declared that this great boon to the world "had been to her family an unspeakable evil," for it cost the life of her husband and substituted the "*res angusta domi*" in place of a lucrative profession and a happy home.

Dr. P. W. Ellsworth says: "Knowing Wells intimately, living beneath the same roof at the time when he went to Boston to announce his discovery, and in almost daily communication with him during the whole period between the birth of his great thought and the hour when his dead body, a sacrifice to his zeal and love of truth, was borne from my own door to its last resting place, I can and do bear witness to Horace Wells only belongs the honor of giving to the world a discovery which has played a more important part as respects surgery, than any other ever made, unless we except Harvey's of the circulation of the blood. The full value of this discovery is not yet known; after ages will make new applications and further improvements.

"Wells knew nothing of Davy's suggestion, but it is to be supposed reasoned out his discovery as one works out a problem? Neither he nor any one else could do this, but his mind, directed to the subject, was prepared to seize a fact and draw conclusions therefrom.

"This fact has been noticed a thousand times by other and more learned men, but not so close observers or so rapid reasoners.

It was at once grasped by Wells, who saw at a glance the consequences which must flow from a trivial occurrence."

The facts contained in this sketch are compiled from notes on "The History of Anesthesia," by James McManus, D.D.S, Hartford (Clark and Smith, press, 1896), and from a biographical sketch on "The Life of Horace Wells, M.D.," by P. W. Ellsworth, M.D., published in "An Inquiry Into the Origin of Modern Anesthesia," by Hon. Truman Smith, Hartford (Brown and Cross, press, 1867).—*Dental Brief*.

BROMIPIN AND ITS THERAPEUTIC IMPORTANCE.

BY LUDWIG HESSE.

THE results of a very thorough investigation of the action of bromipin were published by F. Schulze, based upon the observations carried out at the Gottingen Asylum.* Schulze began with small doses of four grammes and gradually increased them until after fourteen days he gave eight grammes, and after another eight days ten grammes. That dose was continued for some length of time, and then he gave twelve grammes for fourteen days, then fifteen grammes for another fourteen days, again increasing the dose every eight days to twenty or twenty-four grammes, and in the case of one patient to as much as thirty and thirty-five grammes. Then the daily dose was reduced gradually to twenty-five, fifteen, and ten grammes. His observations were made in reference to four male and two female patients, all of advanced age and bad cases. They had been previously accustomed to the administration of bromine preparations. In all instances the use of bromipin was found to be unmistakably attended with beneficial results in cases of epilepsy. With small doses of four to eight grammes Schulze certainly obtained only temporary effects, with medium doses of ten to fifteen grammes there was marked improvement, and with larger doses very distinctly favorable results. Even in the case of patients who had long suffered daily from violent attacks, the use of bromipin had the effect of bringing about freedom from attack for intervals of as much as fourteen days. Meanwhile the mental condition of the patients was very much improved and the improvement maintained after reduction of the daily dose. The character of the attacks was also milder. Schulze infers from his very careful observations that bromipin really has the capacity of counteracting epileptic seizures, and

* Dr. F. Schulze, "Further observations on the action of Bromipin in Epilepsy."—*Göttingen*, 1899.

at the same time it has the effect of improving the general condition of patients who have suffered very considerably. Under treatment with bromipin the acne nodules and pustules resulting from previous use of alkaline bromides disappeared, the appetite was good, and the digestion undisturbed. The formerly fetid odor of the breath also disappeared.

Satisfactory results have also been obtained in Italy from the use of bromipin in the treatment of epilepsy. Scipio Losio employed it in one case with very marked success, and he especially mentions that the preparation is well tolerated, while the general condition of the patients taking it is sensibly improved.

Wulff bears similar testimony to the efficacy of bromipin in the treatment of epilepsy. In the case of one patient who was unable to take potassium or sodium bromides even in moderate doses, since both salts caused loss of appetite, depression, weariness with very great production of acne symptoms; even Erlenneyer's bromide water in small doses had the same effects; but when bromipin was given in small doses an astonishing improvement was effected in the course of a few weeks. The seizures became less frequent and less violent, and at the time of the publication of Wulff's work the patient had already been free from an attack for a period of seven weeks. The bromine acne disappeared gradually and the general condition of the patient improved, especially the appetite. In the case of a child of eleven years with whom other treatment had been unsuccessful, Wulff also obtained very satisfactory results by the use of bromipin.

Dornbluth records similar experiences, and all these statements meet with confirmation from other sources. Reports issued from numerous hospitals agree in furnishing evidence that the frequency of the seizures is at least mitigated; they are less violent and pass off more quickly. The patients become more tranquil in every way, less irritable and more at ease. Moreover, it is generally agreed that the use of bromipin, as compared with the use of other bromine preparations, does not produce any disagreeable accessory effects. Under the influence of treatment with bromipin acne decreases, and in no instance has there been any manifestation of the symptoms of bromism. Numerous observers have, however mentioned the beneficial influence exercised upon the general condition of patients, under treatment with bromipin, with increase of body-weight and improved appearance. This latter result is, undoubtedly, due to the very ready digestibility of sesame oil, to which Professor von Noorden and Dr. Stuve have directed attention.

The circumstance that bromipin does not disturb the stomach or bowels, even when taken for long periods, is, no doubt, explicable by the very ready assimilation of the brominized fat by the

stomach. The quantity of alkaline bromide that may be formed, in consequence of reaction with the intestinal juice, is so minute that any disturbance of the bowels by so-called "salt-action" appears to be out of the question. That circumstance is the more important in connection with the therapeutic use of bromipin, because the treatment in such cases as are now referred to, frequently has to be continued for twelve months. The absence of bromine acne may be due to various causes. It may be that, as a result of the very gradual and progressive elimination of bromine from the brominized fat deposited in the body, a comparatively smaller quantity of bromine becomes therapeutically active at one time; or it may be that, in the absence of any disturbance of the stomach, the reflex irritation productive of acne pustules is not produced.

URIC-ACID DIATHESIS—REPORT OF A SUCCESSFUL CASE.

(Abstract.)

BY WM. H. INGRAM, M.D., PH. GR., NEW YORK.

Mrs. J. G., age 25, married, one child. First came under my care when the child was six years of age.

Family History.—Negative.

Previous History.—Healthy as a girl. Menstruation normal. For some months previous to marriage she suffered from so-called indigestion and developed a tendency to melancholia. Pregnancy normal except for mental depression, which, however, was not sufficiently marked to warrant interference with pregnancy. Delivery normal, child healthy. Mental depression and indigestion persisted after delivery, each growing more marked. Cystitis developed a few months after birth of child, urination being accompanied by violent pains. Became very hysterical, the attacks becoming more and more frequent. Three years before she came under my notice she was operated upon for gall-stones, several small stones being removed. This was followed by some relief as to the violent character of the pain experienced, but the cystitis and mental nervous symptoms persisted.

Present History.—When patient came under my care she was so hysterical and the melancholia so marked that her family feared insanity was imminent. The violent attacks of gall-stone colic were again a pronounced symptom, and at times urination was so painful that catheterization had to be resorted to for days at a time. A small stone passed was found to contain uric acid. I immediately ordered restricted diet, exercise and quantities of Buffalo Lithia Water. I soon found that I could not control the

diet to any appreciable extent. Being in her own home she had access to the table and pantry, and I found that she gratified to the fullest her almost voracious appetite: nor could I get her to take more exercise than the average woman takes. Medicines seemed to have little effect, so I fell back upon the solvent and eliminant plan, insisting that she drink abundant quantities of this water. For some strange reason this idea was the only one that seemed to impress her, and she religiously consulted, at frequent intervals, the bottle of water which she had always at hand. In a short time I noticed an abatement of all the distressing symptoms, which fact stimulated her ambition to drink more and more of this water. She gradually increased the amount to two quarts per day, and with this simple treatment improved gradually until at the end of about three weeks she was entirely free from cystitis, had no more attacks of gall-stone colic, the hysteria disappeared, and she is to-day as happy and cheerful as the average woman.—*Exchange.*

THE TREATMENT OF PAINS IN LOCOMOTOR ATAXIA.

BY E. C. SCHOLER, M.D., CHICAGO, ILL.

ALTHOUGH considerable progress has been made in recent years in the study of the etiology and pathology of locomotor ataxia, the treatment is still far from satisfactory. In spite of the predominance of the disease in persons with a syphilitic history the results of antisyphilitic medication have not been encouraging in the majority of cases. Our treatment in the main continues to be symptomatic, and the symptom for which the patient most urgently demands relief is the intense pain, which is present in nine-tenths of the cases. These pains vary in their duration, sometimes lasting only a few seconds or minutes, or, again, continue for hours or even days. Before the introduction of the newer synthetic remedies we were restricted to morphine in order to alleviate the suffering of these patients, and even at the present time we cannot have too many agents for this purpose, since the effect of any one of them is rapidly exhausted, requiring resort to others. Most authorities recommend the administration of such analgesics as phenacetin, antipyrine and acetanilid, before using hypodermic injections of morphine. I have tried most of these remedies, often changing from one to the other, but not with much benefit. The salicylate of sodium in large doses, 20 to 30 grains, has given fairly good results in most cases, but its drawback has been that the patients were unable to tolerate it on

account of the severe gastric disturbances and cardiac depression following its use in these doses. This led me to try acetyl salicylic acid, or aspirin, which I have found to act magically in 15 grain doses, promptly relieving the pains.

It has been my custom to administer aspirin in 15 grain doses every three hours until the pain was completely allayed, and then two doses of 15 grains each daily, morning and night, seemed to answer every purpose in keeping the patient in a state of comfort. I found that by using this drug I was able to control the jumping and jerking of the limbs which often caused annoyance late in the afternoon or evening, and since resorting to it I have been able to avoid or postpone the use of narcotics. I have been very careful to note whether aspirin produced any unfavorable symptoms such as cardiac depression, weakness, or collapse, and have yet to find my first case in which the drug was not well tolerated.

Perhaps the following cases may prove of interest in view of the fact that as far as I know the drug has not been employed, at least to any extent, in the treatment of this disease.

CASE I.—Mrs. M. S., aged 38 years, had sustained a severe injury of the spine in the dorso-lumbar region. After a time symptoms of locomotor ataxia developed. The patient complained of darting pains, at times lasting only a few moments, and then again for hours. At the time I was called she had been suffering severely for two weeks. As she had previously taken the customary analgesics I prescribed aspirin in 15 grain doses every three hours until she was completely free from pain, and then continued its administration in the same dose three times daily for the following two weeks. After that time an occasional dose when required afforded prompt relief and has kept the patient in a comfortable condition.

CASE II.—J. J. D., aged 38 years, had been a railroad engineer for thirteen years. During his last year of service he began to notice quite an unsteadiness in his gait, and later there developed an inco-ordination of his hand, so that he was hardly able to write and had great difficulty in buttoning his clothes. Soon after intense, sharp pains occurred in his limbs, accompanied by burning and tingling sensations, especially in the feet. For the relief of his suffering the patient was placed on 15 grain doses of aspirin every four hours, with the abatement of the pains after several days. An occasional dose of the drug is given whenever the pains become severe, and always with prompt relief.

The next case was one of injury of the spinal cord, presenting many of the features of locomotor ataxia.

CASE III.—Miss M. M., aged 18 years, several years ago while leaping from the third storey of a burning building fell upon her back. After the accident she was confined to bed for

many months, and at the end of five months motor phenomena became prominent. These consisted in a complete loss of co-ordination, and she also experienced intense, sharp pains, which at times became almost unbearable. Analgesics of various nature were tried, but without much relief. Under the use of aspirin, however, in 10 grain doses every three hours, the pains subsided in a very short time.

These cases are only cited to show that aspirin, although chiefly employed in rheumatic conditions, has also analgesic powers of marked character, and will often afford relief in neuralgic conditions in which other remedies have proved ineffective.

“MANNA” FROM HARVARD.

“Out of the eater came forth meat, and out of the strong man came forth sweetness.”

DR. FREDERICK C. SHATTUCK is Professor of Clinical Medicine in Harvard University, and his address on the value of drugs in Therapeutics is notable in several respects. It is notable, first, for its healthy anti-nihilistic appreciation of drugs in the treatment of disease. While we believe that Professor Shattuck puts rather too narrow limitations on the value of drugs, still, coming from a Harvard professor, we must be satisfied with small favors. The address is notable, in the second instance, for its having been delivered before a homeopathic body—the Boston Homeopathic Medical Society—thus offering us further proof that the chasm between the various medical “schools” is being bridged over, the bands of union becoming closer and more numerous. And, thirdly, and more important, the address is notable for teaching just exactly what we have been teaching these many years. Let us hear what Dr. Shattuck says. “It seems to me,” he says, “that the leading therapeutic principles can be stated somewhat as follows:

“First, Do no harm. This principle seems to be well met by the homeopathic who uses the infinitesimal dose. He does not harm, save in so far as he may miss doing good. And it is still better met by our teaching—to start with small—not infinitesimal—doses of the best procurable drug and give it until results are seen.

“Second, Try to see as clearly as possible just why you give a drug, your purpose in giving it, whether as a specific, curative, palliative, or as a placebo.”

Exactly what we have been teaching for years—give each drug only a definite indication.

“Third, As far as you can, give a drug uncombined. This

is a general rule subject to many exceptions. Rules, however, are made to break. They are our servants, though we too often allow them to be our masters. But in breaking rules we must use our brains, an exercise which most of us avoid as far as we can."

Another therapeutic truth which we have been teaching for many years, and which we could not express in a better manner if we tried. We have always taught and asked the profession to administer drugs singly whenever possible; but not faddists, not being wedded to one idea, we recognized that there are instances in which a combination of drugs acts better than any one single drug can, and in such cases we advocated a combination of drugs.

We know that one drug may act synergistically with another, or it can modify its action, diminish its undesirable by-effects render it milder in one respect and stronger in another—in all such cases we never hesitated to advise a combination of drugs.

But in this paragraph (three) Dr. Shattuck really says more than he perhaps meant to say. "As far as you can, give a drug uncombined." Why does he say that? Because he wants a clear-cut action. And this is a direct plea for active principle therapy. For opium is not an uncombined drug; to administer opium with its twenty-odd alkaloids is almost as irrational as it is to combine twenty isolated alkaloids and administer them in one dose. Jaborandi or pilocarpus with its antagonistic alkaloids is not an uncombined drug. And when we want clear-cut, positive, definite action we must administer the active principles.

"Fourth (and last), In using an efficient drug, be as sure as you can of a good preparation, and then give it until something happens—either the desired effect, or evidence appears that the limit of toleration has been reached, what is called the physiological, but what I should prefer to call the toxic, effect. Disregard of this law is, I believe, responsible for many therapeutic failures."

This sounds very much as if it had been taken from some issue of the *American Journal of Clinical Medicine*. Small doses frequently repeated until effect—doesn't this sound familiar to you?

We will conclude with the closing paragraph from Dr. Shattuck's address, which might be well heeded by some of our ultra-scientific physicians: "Scientific medicine," says he, "is open to the danger of going to the extreme of therapeutic nihilism, of disregarding the individual, of forgetting that while our knowledge is imperfect, and the big thing is to find out the true nature and cause of disease, the present-day sufferer demands, and has a right to demand, all the aid that our knowledge, imperfect as it is, permits.

In other words, this means that while we are hunting about for the ultimate cause of disease, we must not permit our present

patient to die, but must give him all the aid, no matter from what source obtained, all the help that our present-day knowledge—scientific or empiric—affords.—*The American Journal of Clinical Medicine.*

ABSTRACTS.

Pure Milk Supply.—W. Hempel (*Muenchener medizinische Wochenschrift*) describes the conditions in a model dairy near Dresden, in which milk is obtained under such aseptic conditions that it can be sent to Bremen without ice during the summer, and has been found sweet and pure after crossing the ocean in an ice-box. He gives illustrations of a contrivance which insures the even mixing of the milk in a pail while avoiding drawing the milk at the surface and that at the very bottom of the pail, where germs congregate most. If the milk is to be sent a great distance during hot weather, it is frozen in a freezer. Quite fresh milk does not suffer from freezing, but milk that is a little old curdles as it melts.

Cirrhosis of the Pancreas in Diabetes.—G. Herxheimer's (*Virchow's Archiv*, Berlin) communication fills 113 pages and is accompanied by several colored plates. He has had opportunity to examine the pancreas in 36 cases of diabetes, and his conclusions are rather against the "islands of Langerhans theory." He is inclined to accept changes in the parenchyma of the pancreas as the cause of diabetes. Recent research by Karakascheff and Reitmann has converted them also to this opinion. In 5 cases described in detail, the alterations in the parenchyma of the pancreas were very pronounced. They were accompanied also by the efforts at regeneration characteristic of cirrhosis of the pancreas. This indicates that not only anatomically, but also physiologically, the essential injury inducing the diabetes must be sought in the parenchyma rather than elsewhere in the pancreas.

Determination of Size of Heart by Roentgen Examination.—W. Guttmann (*Zeitschrift f. klinische Medizin*, Berlin) recapitulates the sources of error in Roentgen examination of the heart. It can never give the actual largest diameter of the heart with precision, as it shows only the largest diameter presented at right angles to the direction of the rays. Examination from the front, from the side and from above has each its advantages and its drawbacks. Orthodiagraphy is so unreliable that it is the rarest exception when two views taken of the same person under the same conditions exactly coincide. In conclusion, he remarks that it is really of comparatively little importance to determine the

true size of the heart. At the most, the increase in the size of the heart determined in a given individual, if the possibility of blunders can be excluded, will allow certain conclusions in regard to diagnosis and prognosis. In every case, however, greater stress should be laid on the changes in the shape of the heart as a whole and of its various parts, and on functional tests.

Genesis of Thermal Waters.—A. Gautier (*Bulletin de l'Académie de Médecine*, Paris) describes his connection of the dehydration of the rocks under the influence of the heat in the centre of the earth and of chemical affinities, and the escape to the surface of the water thus formed by volcanic action.

Mercury Lamp for Treatment of Skin and Mucous Membranes.—Kromayer (*Deutsche medizinische Wochenschrift*, Berlin and Leipzig) gives an illustrated description of a mercury and water lamp for phototherapy for which he claims many advantages. Among them is the fact that the therapeutic effect is obtained in one-half the time required for the iron lamp and in from one-third to one-fifth of the time of the Finzen lamp. The area that can be treated is much larger, generally 7 by 7 cm. at a time. The lamp can be arranged so as to throw the light on mucosæ of nose, throat, rectum, uterus, bladder, etc. Its application is convenient for physician, patient and attendant, while the expense is much less than that of the ordinary lamps, as only four ampères are required. He has used it with good results in a number of cutaneous affections, including eczema, acne, lupus, obstinate syphilitic lesions and in gonorrhœa.

Determination of Albumin in Blood.—Deyche and Ibrahim (*Zeitschrift f. klinische Medizin*, Berlin) have modified the Denigès cyano-argentimetric method of determining the albumin in the urine and applied it to the blood. The results have been so constant and the method permits of such precision that they recommend it in high terms after several years' experience and hundreds of tests on 56 patients. The principle of the test is that the albuminoids in the fluid are found and precipitated by a given amount of a potassium-mercury-iodid solution in the presence of acetic acid. They are precipitated in the form of mercury albuminate. In the filtrate, free from albumin, the loss of mercury from the formation of the mercury albuminate is determined in the albumin-free filtrate by the Denigès silver-cyanid methods. It was found that the proportion of albumin in the blood was the same as the proportion of hemoglobin. This allows the exact amount of hemoglobin in the blood to be expressed in absolute figures instead of merely in percentages. The details of the simple technic are given in full, with summaries of the 56 cases tested.



School Hygiene.



MENTAL OVERWORK IN SCHOOLS.*

BY EDWARD RYAN, M.D., KINGSTON, ONT.

Associate Professor of Clinical Medicine and Clinical Surgery, Queen's University.

THE question of mental overwork is one that might well occupy the time of a meeting of this character. For mental overwork is a great mistake. "It is a mistake in so far as the mere acquirement of knowledge is concerned. For the mind, like the body, cannot assimilate beyond a certain rate. It is a mistake, too, because it makes study distasteful. It is a mistake also, as it assumes the acquisition of knowledge is everything and forgets that a much more important thing is the organization of knowledge." It weakens the mind, it weakens the body, and in the end defeats the very object in view. It has been the source of numberless physical and mental wrecks. On the growth and proper development of girls and young women its effects are especially pernicious. Spencer: "In a child or youth the demands on vital energy are various and urgent. The waste consequent on the day's bodily exercise has to be met. The wear of brain entailed by the day's study has to be made good. Additional growth of brain and body has to be provided for."

The problem that should be kept constantly before our minds should be how to train our youth to produce a nation of the best men and the best women. Culture and refinement, the mental and moral elevation of a people, a high standard of the life intellectual, these qualities are the outcome of a generous and well-balanced system of education. To reach the highest standard of mental life we must also attain a high standard of physical life.

In the golden age of Greece, unsurpassed in all departments of mental activity, the physical well-being of her people laid the foundation of Athenian culture. The care and cultivation of the physical man preceded the mental activities. In the ideal republic those found wanting in bodily perfection were eliminated from the foundations and from the functions of the State.

Social conditions are changing in this country. In the early pioneer days people lived an outdoor life. The stern

*An address delivered at the Annual Meeting of the School Hygiene Department of the Ontario Educational Association, held in the Medical Building of the University of Toronto, April 18, 1906.

ring of necessity permitted no self-indulgence. The earth, the sky, the forest and the streams were man's daily companions. From these great masters he learned his lessons. Mental overwork, in the form it is taking to-day, was neither a question nor an issue. The youth from early life was obliged to take part in the cultivation of the soil.

Thus the time spent in the open air increased the physical capacity of the student. It is worthy of remark also that until quite recent years male teachers were in the majority. Open air exercise was thus more encouraged, and the strain of study lessened, at least in a measure, by games and sports, in which the teacher led the way. In the primary schools at least female teachers are now almost entirely employed, and the stimulus to open air exercise is thus withdrawn.

Social life has also changed materially. It has become far more complex, more exacting, and, therefore, more exhausting, demanding a greater expenditure of nerve force even in early life. The physical and mental resisting power of the nation is being gradually lowered. Now, let us consider what we wish to grow on this unproductive soil. Modern education is day by day becoming more diversified, more complex. The subjects of study are increased and multiplied. Technical studies form part of even a primary education. There is an ever-increasing demand on the time, on the physical and mental powers of the student. The hours of study are being lengthened. The natural competition among children, stimulated by the ambition of parents, leads to study pressure by day and by night. If we take the time occupied in going to and from school, the hours actually spent in the school-room, the hours spent in home work, more time is consumed than the labor unions permit for manual work. The continual strain of examination is a source of nerve pressure and exhaustion. It is not the actual time spent in preparation for examinations that brings the worst result. It is continual anxiety, the fear of failure, the supposed loss of caste among comrades and often, indeed, the dread of parental displeasure, that causes the strain and the breakdown of many students, young and old. Worry, Osler wisely remarks, causes more trouble than work. "It is very fortunate there are idle people in the world. They save the race from too rapid degeneration."

The pernicious system of home work has much to do with nervous pressure. This work is pursued often under the greatest difficulties. Exhausted mentally and physically, the student has to take up his burden again under the worst possible conditions. With poor light, lowering hygienic surroundings, constant interruptions, and a system utterly fagged, the student undertakes another term of labor. I will say nothing of the vitiating practice of

working in sleeping apartments, and then going to bed without a change of air. Richardson's "Health of Nations" quotes Sir Edwin Chadwick's London experiment: "He divided the boys of a school into two. One series worked half a day, the other all day. After a time they were both set to work together. The half-time school often beat the full-time school at school work and always at games." Nor is any account whatever paid to individual capacity or inclination. No matter how agreeable to the student certain lines of thought may be, he is not permitted to indulge them. No matter how obnoxious certain subjects may be he has no peace till he masters them. How else could he pass his examinations?

What wonder is it that under these conditions we are fast becoming a nation of neurotics! What wonder is it that many an erstwhile and promising life lapses suddenly into a condition of useless inactivity and remains fallow for years, if not forever! What wonder is it that under this constant strain and pressure and wanton wasting, crippling and strangling of the forces of nature, we are producing nothing of supreme intellectual value! M. Simon: "There are students, but no scholars. There is instruction, but no education. They make bachelors, licentiates and doctors, but making a man is out of the question. What they do turn out is a ridiculous little mandarin, who has no muscle, cannot leap a gate, give his elbows play, shoot nor ride."

What is the remedy for those conditions? There must be a return to simpler and more natural methods. Physical and mental training and cultivation must go together hand in hand. More care, time and accommodation must be given to natural healthy sport and outdoor exercise and occupation. The teacher should have a watchful regard for the mental capacity of a student, and under no conditions should the margin of safety be approached. The hours of study should be lessened, or at all events controlled. Against the pernicious system of home work, as now conducted, I protest in the strongest terms. No work requiring intellectual strain should be undertaken at night. The solution of mathematical problems and work of like character should be utterly prohibited. Reading of such a character as will entertain and relieve the mind may well be prescribed. The incidents of history, tales of discovery and adventure for the young, and the standard authors judiciously selected for those more mature will in the end prove a greater source of mental strength and culture. The present system of conducting examinations should be withdrawn or widely modified. The dread of examinations and the mental conditions occasioned thereby are prolific of the greatest physical and mental evil. Neither the love of learning nor the desire for knowledge for its own sake begot the ex-

amination craze. It had its origin in a lower sphere. Teachers had to obtain situations, institutions must have students, and what better recommendations could either give than that so many successful students were "manufactured" by them. The system is commercializing teachers and institutions and lowering the standard of both. Far better would it be to permit the whole educational term of the student to speak for itself. To state that an educational life would be retarded without a "system of examinations" is both mischievous and illogical. I should like to be informed what great intellectual periods in the world's history have been generated through a "system of examinations."

Now, as a relief or as an antidote to mental overwork, stands the value of bodily exercise, games and sport. "For girls as well as boys the sportive activities to which the instincts impel are essential to bodily and mental welfare."

It is a fair statement to make that nowhere can be found better types of men than those produced by the great schools of England: Eton, Harrow, Rugby, Stonyhurst and others of like character. Yet in these schools all kinds of manly sports are encouraged, and on two or three days out of the week afternoon classes are suspended and the entire time given over to sports and games.

More space, more encouragement is required in our educational institutions for physical culture and physical perfection, without which over-pressure cannot be restrained, and intellectual life can make but little progress.

MEDICAL INSPECTION OF SCHOOLS IN MONTREAL.

THE City Council of Montreal in January, 1906, appointed seven physicians as medical inspectors of schools and gave an appropriation of \$3,000 for this purpose. Unavoidable delays occurred in beginning the work, from one reason and another, so that it was not till Oct. 3rd that the inspection was really begun. On this day, from statements published in the Montreal *Herald* and *Witness*, it would seem that the necessity for medical inspection of schools was amply vindicated. One inspector found some classes in basements, others in places where the air was filled with insanitary odors, others in rooms of insufficient air-space (in one case forty children are said to have been found in a room with air-space for fifteen). Another inspector reports that thirty-three pupils out of sixty-six in one class have suffered from measles on account of a single unrecognized case, one pupil with measles having been allowed to continue in attendance.

We understand that this state of things occurs not in the public schools, but in the numerous so-called private schools, especially in the east end of Montreal. We are further informed that the Montreal High School has had medical inspectors for years, and that this school has also a school nurse.

Montreal has thus the honor of being the first city in Canada to establish medical inspection of schools, and it is already evident that the course of the City Council was a wise one.

CHILDREN'S TEETH.

THE Birmingham City Dental Hospital has offered to undertake the inspection of the teeth of the scholars attending some of the public elementary schools of the city, and also to care for the teeth of such scholars, so far as may be necessary. This offer was gratefully accepted by the Elementary Education Sub-Committee, and has aroused great interest in other British cities and towns. It seems probable that this good example may be followed elsewhere.

SCHOOL NURSES.

THE Board of Education of Grand Rapids, Michigan, has arranged with the District Nursing Association to place four nurses in the public schools. For each nurse so employed the Board will pay the Association \$10.00 per week. The nurses will wear truant officers' badges, and are to work both in the schools and in the homes.

H. M. M.

Laryngology, Rhinology

IN CHARGE OF
PERRY G. GOLDSMITH, M.D.
TORONTO.

and Otology

ELECTROLYSIS IN EUSTACHIAN STENOSIS.

E. T. HOPKINS (*Archives of Otology*, Vol. 34, No. 6) at the otological section of the New York Academy of Medicine, introduced the subject of electrolysis in the treatment of chronic eustachian stenosis. Hopkins thinks the reason that the method has fallen somewhat into discredit in the opinion of some writers is due to errors in insufficient attention to the naso-pharyngeal current. He advises the use of graduated bougies up to No. 3 or No. 4 (French). No. 1 may be used at first, and after an interval of from two to four weeks the next size, and so on until No. 3 or 4 have been used. He does not advise irrigation following the passage of the instrument, fearing emphysema. He has found improvement in cases of tinnitus and deafness when he has used the larger bougies, and such was not the case when only the smaller ones were used.

Dr. Kenefick, in the discussion, was inclined to restrict its application to cases of long standing, when the stricture was of a more dry and less vascular character, and in a general way he considered that long-standing closure of the tube, tinnitus, a moderate degree of deafness, and extreme vertigo, were favorable cases for electric bougie in proper hands. Dr. Gruening thought cases of emphysema denoted a false passage. Dr. Phillips did not believe the electricity had any material effect. If he failed with whalebone he usually failed with the electric bougie. Dr. Simpson thought in organic strictures the electric bougie was the only method of securing relief. He thought the injection of a bland oil into the mouth of the tube in many cases obviated the necessity for using electricity. Drs. Harris and McKeown spoke favorably of its use in specially selected cases only. Dr. McAuliffe thought the true explanation of the electrical action was to be found in the action of the galvanic current on the muscles.

P. G. G.

LUDWIG'S ANGINA.

CHAS. C. CUTHBERT (*Glasgow Medical Journal*, Sept., 1906) cites a very interesting case of this not very uncommon disease. The condition is the result of a pyogenic injection of extraordinary virulence, occurring in the submaxillary region and generally commencing in the cellular tissue, between the mylohyoid and genio-hyoglossus muscles.

Of the complications which may occur, pneumonia, septi-cemia and pyemia are most to be dreaded. Dysuria frequently causes great distress and is due in some cases to edema of the glottis, in others to direct pressure on the trachea or vagus. Pressure on the jugular vein gives rise to symptoms of cerebral congestion, and in one case disturbance of vision and prominence and tension of the eye-ball, with inability to completely close the eye-lids, was explained by alternation in tension of the jugular vein. Ballance has noticed thrombosis of the jugular vein. Abscess of the anterior mediastinum is not an uncommon complication. According to Ludwig the disease was always fatal, but by present-day methods of handling injections a much better prognosis can be given. Free incisions into the tissues of the neck. Incisions in the floor of the mouth are not advised, owing to the difficulty of maintaining drainage. If there be mechanical interference with breathing, Cheyne and Burghard advise intubation. This may be impossible owing to the patient being unable to open his mouth, while on the other hand tracheotomy is almost always followed by infection of the wound. If the condition be due to streptococcus injection, the free use of antistreptococcus serum is indicated. Suitable general systemic tonics must be freely given. The notes of the case are given as follows:

A. S., traveller, aged 49, was admitted to the Western Infirmary on 10th June, 1905. Previous to this illness he had always enjoyed good health, and he was very temperate in his habits. On 3rd June he complained of slight "sore throat," with pain in the right ear, but there was no discharge from the ear. Two days later a swelling appeared externally just behind the angle of the lower jaw on the right side, and, on account of the rapid increase in this swelling, he was admitted to hospital on 10th June.

When admitted he appeared to be very ill. The chin was tilted upwards and the head backwards by the swelling, which was very marked, and extended below the chin from the angle of the jaw on one side to the corresponding point on the other side, and downwards to below the level of the cricoid cartilage. The

swelling was hard and brawny, except at a point just to the left of the middle line, where a sensation of deep fluctuation was obtained. The face was swollen with edema, and the mouth could only be opened about half an inch. A hard swelling could be made out in the floor of the mouth and pushing the tongue upwards. Swallowing of even liquid food was accomplished with difficulty, and there was a considerable degree of dyspnea, from which the patient seemed to get some relief by resting in bed on his hands and knees. Nothing abnormal was made out in the lungs. The temperature was 100 deg., and the pulse was 102 per minute, and slightly intermittent. As there was a story of his having coughed up a cast of the trachea a few days previously, a swab was taken from the throat and examined for bacillus diphtheriæ, but with a negative result.

In order to make the necessary free incisions in the neck, chloroform was administered. The patient struggled during the administration, and then stopped breathing. As artificial respiration was of no avail, tracheotomy was performed as low down in the neck as possible. The wound was very deep on account of the edema and infiltration of the parts, and, on introducing the tube into the trachea, at least half an ounce of fetid pus was coughed up, and finally respiration was re-established.

Free incisions were made into the brawny area, and a little pus was found, but all the cellular tissue surrounding the muscles and the salivary glands was in a black, sloughing condition. For some days the patient continued to cough up pus through the tracheotomy tube, which was removed on 16th June. A large number of sloughs were discharged from all the wounds in the neck, including the tracheotomy wound. The patient's general condition improved, and he was able to breathe in comfort while lying on his back, and to swallow without difficulty. A parotid abscess, which developed on the left side, was opened, and another incision was made low down in the neck for drainage purposes. On 19th June there was severe hemorrhage from all the wounds in the neck owing to ulceration into the transverse cervical vein. In order to control this, the large cavity in the neck was tightly packed with gauze, as a result of which within twenty-four hours the patient developed a severe attack of erysipelas of the face and scalp, but under suitable treatment this disappeared in a few days. The wounds in the neck healed rapidly by granulation, and he was dismissed cured on 11th July.

The points to which I would draw attention are:

1. The inadvisability of giving a general anesthetic to a patient suffering from Ludwig's angina, as, owing to the patient's inability to open the mouth, it is impossible to say whether or not an abscess is pointing into the pharynx.

2. It was demonstrated at the time of operation and for days afterwards, that a large quantity of pus had escaped into the trachea, and yet, although the chest was examined daily, no sign of pneumonia could be made out; in fact, there was hardly a râle to be heard in his chest from the beginning to the end of his illness.

3. Unfortunately in this case no examination was made of the pus, either by culture or otherwise, to demonstrate the nature of the micro-organism involved. In the literature of the subject it has always been taken for granted that it has been a streptococcus invasion, and this is probably so far correct. It was noted, however, by Ludwig, and occasionally since his time, that in a few of the cases there was a distinct formation of gas in the tissues. This suggests the possibility that, in at least some of these cases, we have to deal with the bacillus of malignant edema, either alone or in combination with a streptococcus.

Hunyadi Janos Natural Laxative Water.—The medical profession in general recognize the value of Hunyadi Janos natural laxative water as a remedy for constipation and diseased or impeded conditions of the intestines and rectum, and largely recommend its uses in cases of this kind. Its prompt action, the small dose (half a glass on rising), the fact that it produces no griping or unpleasant after-effects, and its tonic action upon the stomach make it an especially safe and desirable remedy. We quote from the *Progrès Médical*, of Paris, France, as follows: "Nothing can be justly compared with the nutritive and regenerative effects brought about by Hunyadi Janos water, which is eminently absorbable, and the curative effects whereof appear to penetrate even the finest capillaries of the interstitial circulation, causing them to disgorge their morbid elements and promoting molecular interchanges tending to the purification of the tissues and to the normal renovation of their anatomical constituents."

The Canadian Journal of Medicine and Surgery

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NO. 6.

Editorials.

THE RESULTS OF EXAMINING BOLOGNA SAUSAGES AND POTTED MEATS.

A PERUSAL of Bulletin 125, issued by the Department of Inland Revenue, Ottawa, Canada, shows some interesting details about the condition of Bologna sausages in Canada. The samples examined were collected in July, 1906. Information is given in the Bulletin of the nature of each sample, its number, the name and address of the vendor, the cost and weight of each sample, the

name and address of manufacturer or furnisher, the inspector's report, the condition of the samples, the preservatives present, and artificial substances found, if any were used.

It may be premised that several samples were already decomposed, and, therefore, were not analysed. The four samples of Bologna sausage manufactured in the district of New Brunswick were good; no preservatives were found; artificial coloring substance was present in only one of the samples.

Four samples of sausages made in the district of Quebec proved to be mouldy; neither preservatives nor coloring substances were found. By the term mouldy we would understand that these sausages contained mould or fungi. The term is applied to all vegetable organisms of a low order of development, especially the micro-organisms.

From the district of Montreal two samples of Brunswick sausages proved good; one of them contained boric acid and artificial coloring substance, the other contained some coloring substance but no boric acid. From the same district six samples of Bologna sausages were examined; five were pronounced good, one mouldy. One of these samples contained boric acid, three contained coloring substances.

Two samples of Bologna sausage from the district of Kingston were pronounced mouldy; neither preservatives nor coloring matter had been used.

One sample of Bologna sausage from the district of St Hyacinthe was found good; no preservatives present; coloring substances were found.

Two samples of brawn from the district of Ottawa were found good; one sample of Bologna (pork) good; one of Bologna (beef) good; one of Bologna good. Boric acid was found in the beef and pork samples of Bologna, none in the others; coloring substances were found in two samples of Bologna sausages.

Two samples of beef Bologna sausage from the district of Toronto were found mouldy; neither preservatives nor coloring matters were found.

Three samples of Bologna sausages from the district of London were found mouldy; neither preservatives nor artificial coloring substances were found.

Three samples of Bologna sausages from the district of British

Columbia were examined; two were found mouldy, one good. Sulphurous acid was present in the good sample; artificial coloring substances were found in two samples.

Altogether 32 samples were examined: 5 contained preservatives, 11 contained dyes. It will thus be seen that of the number of samples of Bologna sausages which escaped decomposition, and the examination of which was possible, about one-sixth contained preservatives, and about one-third were artificially colored.

To recapitulate: The four samples of Bologna sausages from New Brunswick proved good; the four from the district of Quebec proved mouldy; of the eight samples from the district of Montreal, seven were good, one mouldy; of the two samples from Kingston, both were mouldy; one sample from St. Hyacinthe was good; of the five samples from Ottawa, all were pronounced good; the two samples from Toronto were pronounced mouldy; the three samples from the district of London were mouldy; of the three samples from the district of British Columbia, two were found mouldy, one good.

Our readers will observe that of the 32 samples of Bologna sausages which were analysed, 44 per cent. were mouldy. In reference to mouldiness there is this to be remarked, that the growth of moulds occurs only where decay is going on, and there is nothing, at all events, to show that any other than organic compounds in a state of decomposition can be made use of by moulds.

In reference to the 312 samples of potted meats reported on in Bulletin 123, the examining chemists thought that some of the samples might contain cereal products. These potted meats were submitted to microscopic examination and to the test for foreign coloring substances. All, with one exception, were found free from coloring substance. In 90 samples of potted meats, however, the presence of starch, and consequently of meal from cereals of some description, was detected.

In 53 of the 90 samples found to contain starch, the terms "chicken loaf," "ham loaf," "veal loaf," "Melrose paté," "chicken tamale," appearing on the respective labels, indicated that meal or flour had been used in preparing them, and could not be considered an adulteration. In the 37 other samples of "potted beef," "ham and tongue," "sausage meat," etc., etc.,

no words indicating that meal had been added to them appear on the labels, so that its presence in these samples may be rightly considered as an adulteration.

Samples of the cereal products used in the packing houses have been collected under the following designations: "Bull Meal Flour," "Bologna Sausage Filler," "Bologna Filler Flour," "Potato Flour." Examined under the microscope, two of these samples were seen to consist of maize flour; one consisted mainly of the same product and, besides, some undetermined tissues; two consisted almost exclusively of potato starch.

J. J. C.

FEES PAID TO PHYSICIANS FOR LIFE INSURANCE EXAMINATIONS.

AT page 426 we publish a letter from Dr. A. Laurendeau, St. Gabriel de Brandon, P.Q., who speaks authoritatively respecting the fees paid to medical examiners for life insurance examinations in Quebec. The fee paid by the mutual benefit companies, viz, \$2.00, is small, the excuse offered being that associations of that kind are poor, and the amount insured by them inconsiderable. As far as the actual work done by the examiner for a mutual benefit company is concerned—examination of the applicant and preparation of the report—it takes as much time and is just as onerous as an examination for which \$3 is paid by a regular insurance company. However, as the poor are always with us, the remuneration for that kind of work will always be inadequate.

Formerly the regular life insurance companies used to pay their medical examiners \$5 for the examination of an applicant for a policy of \$1,000 and upwards. Now the companies discriminate, paying a fee graded according to the amount of the policy. Thus, according to the Imperial Life Assurance Co., of Canada, for policies ranging up to and including \$2,000, a fee of \$3 is paid; for policies ranging from \$2,000 to, but not including, \$5,000, \$4 is paid; for policies of \$5,000, and over that sum, \$5 is paid.

As the greater number of life policies issued in Canada are for sums of \$1,000 to \$2,000, the most commonly paid medical

examiner's fee is \$3. Dr. Laurendeau wishes, in company with many of the physicians of Quebec, to see a \$5 fee paid for every examination made for a regular life insurance company. It is quite likely that a considerable number of physicians in Ontario sympathize with this view.

Some of the points for and against it may be presented as follows: A physician examining an applicant for life insurance is an expert, doing the work of the company, and should be well paid. His work must be done carefully and exactly, and, besides, in his report there is a directness of statement not usually demanded in ordinary professional work. The examiner is acting as adviser for a company which has a right to be guarded against unsafe risks. But he is only occasionally employed by the company; his principal professional dealings are with the public of the locality where he resides. The agent of the company is one of these. If an examiner is rather scrupulous in his examinations he is likely to lose favor with the agent, who may take the greater part of the risks to some other examiner. The examiner may also be interested in an applicant, who is perhaps one of his public. If an unfavorable report is sent in, the rejected applicant generally attaches the blame to the local examiner, and perhaps holds a grudge against him for his rejection. Then the mere writing of the examiner's report takes from fifteen to twenty-five minutes, and from fifteen to twenty minutes more must be devoted to the physical examination of the applicant and the urinary analysis. Besides, even if the examination of the applicant and the filling in of the report can be done in forty minutes, a conscientious examiner may have occasion to re-examine an applicant for some abnormality of the pulse or other condition noted during his first examination. Again, an appointment made by the applicant may not be kept, thus entailing loss of time to the examiner.

On the other hand, a life insurance examination is congenial work. It is frequently done at the doctor's office; requires no appreciable expenditure of material on his part; simply calls for an expenditure of his time and the employment of ordinary professional knowledge. A doctor practising in a village who gets from 25 cents to \$2 for an office consultation, 50 cents to \$1 for a visit and mileage 25 to 75 cents per mile, one way, is amply

remunerated by a \$3 fee for an examination, which should not require much over forty minutes of his time. Then, again, there is another important reason why he should hesitate before refusing the \$3 fee. If he refuses to accept it, a confrere, as competent as he, may be willing to take it.

In *The Medical Council*, September, 1906, p. 397, we notice a letter from Dr. Dunlap, of Hill, Montana, who says that medical fees in that State are high. He gets \$2 for an office consultation; \$3 for a visit, mileage \$1 per mile one way; night rates double; obstetrical cases from \$25 up, according to the time spent and the complications, mileage extra, and no free extra visits. Naturally, Dr. Dunlap refuses to make any life insurance examinations for less than \$5. The ordinary fees for professional services in Quebec are not so high as those mentioned by Dr. Dunlap; in fact, we see in the "Tariff adopted by the Medico-Chirurgical Society of the District of Joliette," a copy of which has been kindly furnished by Dr. Laurendeau, that they are much lower. Until the arrival of the auspicious day when medical fees in Quebec and Ontario shall be commensurate with the value of the services rendered by highly educated professional men, \$2 for the examination of an applicant for a mutual benefit association policy, and \$3 for the examination of an applicant for a policy of \$1,000 to \$2,000 in a regular company, seem to be reasonable fees.

J. J. C.

ENTHUSIASM AS A CURE.

DID you ever see Gotham on "election" night, reader mine? It is a sight never to be effaced, a whole little world of men and women gone mad! Ills and ailments forgotten, the crowd, a human earthquake, tremor after tremor, with a noise sufficient to usher in the crack of doom. Watching the yelling, pushing mob, broomsticks in hand, knocking off hats, blowing horns with ear-splitting sounds, using "ticklers" right and left, tickling darkies and white women, patrician and plebeian alike, on chin and cheek, one gasped as the dread possibility of an epidemic of skin disease seemed the inevitable sequel. Yet in past years few results of an alarming nature ever have been noticeable after these outbursts of political enthusiasm. Our friends, the Chris-

tian scientists, might easily say, here again is an example of mind over matter, a whole community forgetting aches, pains and infirmities, and joining in one grand march up old Broadway, crushed almost to suffocation, and yet greeting the night with laughter and song. Crazy, we say, but cured momentarily, we cannot deny. And yet how comes it, we have just prescribed the rest cure for a decided case of ennui? Are we any further on in our science after all than the poor charwoman was in her philosophy when she declared she "was goin' to Heaven, just to do nothin' for ever and ever."

W. A. Y.

**"GOOD MORROW TO YOU.—HERE, THE STREET IS
NARROW."**

THE surgery door opened, and a man was shown in who approached the desk with the following monologue:

"I'm from Ireland.

"I'm a doctor.

"I want a *locum tenens*."

Upon informing the stranger that unfortunately he was in the wrong pew, that seldom did a Canadian doctor need a supply, and if so the applicant must have graduated in Canada and "passed the Council," the stranger answered, so he had heard, and he deemed it a hardship. That was a point where doctors differed, but courtesy and a lack of infinite time forbade further remarks. There seemed no reason for his staying, and so he drifted out again, perchance to interview other members of the Toronto profession.

Will the day of a clearer understanding never dawn in that land of fogs (the British Isles) across the sea in regard to medical registration in the colonies. Let the Old World doctors learn that they must be with us, ere they can be of us, a betrothal solemnized through the doors of our University, before the donning of the wedding garment and the new name, Canadian physicians, which we are proud to share, but only with those who may adorn it.

W. A. Y.

EDITORIAL NOTES.

A Spécial Sign of Arterio-Sclerosis.—Dr. Capiello (Naples) describes in an article published in *Nuova Rivista clinico-terapeutica*, 1906, Aprile, No. 4, p. 192, a special sign of arterio-sclerosis which he has noted. In twenty out of twenty-four cases of that disease. If you compress the radial artery, so as to stop the pulse, the patient feels, in the palm of his hand along the course of the palmar arch, a peculiar feeling, like a slight thrill or a pin prick or, to describe it more accurately, a feeling like that which is caused by a fly passing over the skin. This sign is found in every case of aortic insufficiency, and should be attributed to the greater speed and force of the blood current in the hand, which, travelling only through the ulnar artery, strikes strongly against the curved portion of the palmar arch.

Acute Benign Inflammatory Complications in the Broad Ligaments after Pathological Confinements.—Dr. Laignel-Lavastine, in *La Presse Médicale*, 19 Septembre, 1906, p. 604, gives an abstract of a thesis published by H. Guilbert, Paris, entitled, "Acute benign inflammatory complications of the broad ligaments, appearing after pathological confinements." The thesis is founded on seven cases observed by Coudert, and the author of the thesis describes a clinical type of inflammation of the broad ligaments, which is essentially benign in its characters. It is a lymphatic infection starting from the womb, followed by a reaction in the adjoining cellular tissue, thus constituting an acute inflammatory edema of the tissues around the neck of the womb. The characteristic symptom of this disease is the rapid appearance of a tumor, variable in size, always perceptible in the vagina, generally inaccessible to abdominal palpation, closely adherent to one side of the womb, capable of passing over easily from one side of the womb to the other side of that organ, and without any tendency to suppuration.

The Treatment of the Vomiting of Pregnancy by Diet and Suggestion.—Cases of excessive vomiting in pregnant women are treated by Professor Fabre, of Lyon, by diet and suggestion. The diet consists of a bread soup made as follows: A certain quantity of water is placed in a saucepan over the fire, and bread, cut

into small pieces, put into it. Salt is added to the soup, which is allowed to simmer over the fire for about an hour, so as to become thick. A small lump of butter is added, and the soup is ready to be served. The patient is examined and put to bed, and the soup is offered to her, in about three hours' time, with the recommendation that it is the only remedy that can cure her, thus bringing into play the element, suggestion. Often the first bowl of soup is vomited, but a second one is given, and it frequently happens that it is retained. A bowl of this kind of soup is offered twice a day, always at the same hours, morning and evening. After swallowing the soup, the patient is required to rinse out the mouth with cold water. In the intervals between the two meals she is allowed a small bottle of lemonade or soda water. Under this regimen the vomitings become by degrees less frequent, and generally cease in three or four days. A slight increase in the patient's weight is then observed. All that remains for the patient to do is to resume her ordinary diet, in a tentative way, and in some cases she is able to do so pretty rapidly.

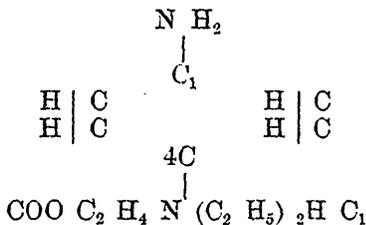
Causes of Obesity.—In a paper published in the *Bulletin Médical*, 1906, No. 25, pp. 287-293, and No. 27, pp. 311-316, Dr. P. Carnot considers the different pathogenic types of obesity. Obesity consists in an exaggeration of the fatty reserves of the organism. This exaggeration may be brought about, on the one part, by a hereditary or family predisposition, or, on the other hand, by a series of occasional causes. In about one-half of the cases the occasional cause is manifestly an over-rich diet, which is out of proportion to the expenditure of energy, thus causing a reservation of a considerable part of the nutritive excess (alimentary obesity). In other cases the automatic regulation of nutrition does not take place in a normal manner, as a result of the functional insufficiency of different glands which have an internal secretion. Among the glandular obesities, genital obesity, produced experimentally in animals, viz., bees, horses, fowls, etc., is observed clinically in castrated persons and among women, owing to many circumstances, viz., obesity of puberty, post-nuptial obesity, maternal obesity, obesity of the menopause, obesity of ovariectomized women, etc. Thyroid obesity is distinct from myxedema. Hertoghe saw a young bull in which ablation of the thyroid gland brought about an increase of weight amount-

ing to over forty pounds in a few months. Dr. Carnot had a patient who became obese after the growth of a goitre. Obesity caused by the pituitary body is not well understood. Gastro-intestinal obesity has been well studied by Leven. Hepatic and pancreatic obesities have not yet been demonstrated. In other cases a toxic or toxi-infectious cause capable of disturbing the general nutrition of the organism may be responsible for obesity. These causes may also explain mechanisms of a complex nature which, at least in certain cases, act through the intermediary of the glandular lesions already cited. Toxic obesities, due to arsenic, phosphorus, mercury, and particularly alcohol, and toxi-infectious obesities, due to different fevers, typhoid fever, tuberculosis, syphilis, etc., may be mentioned. The author has produced obesity experimentally in the guinea-pig by alcohol, arsenic, lead, phosphorus, diphtheritic toxin, and the injection of tubercular bacilli of slight virulence. It should be remarked, and it is interesting to observe, that these different causes of obesity sometimes produce emaciation, by variations in the doses and the conditions. In fact, it is a general law of physiology that the same agent, according to the dose in which it is given, may first provoke a functional excitation of nutrition, to be followed by a failure of nutrition. With respect to nutrition, the same toxic substance may, if given in small doses, cause an increase of weight and, if given in larger doses, loss of weight, probably by acting in an inverse way on the regulating organs of nutrition. Looked at from this standpoint, obesity and emaciation may be considered to be morbid syndromes indicating an excess or a defect of nutrition, the one condition being related to the other and derived from the same cause.

Cerebral Lesions of the Insane — Dr. L. Marchand, of Bois, in a paper published in *Révue de Psychiatrie*, Avril, 1906, No. 4, pp. 133-148, concludes that the principal diseases of the brain met with in the insane are chronic meningitis (meningo-corticalitis), encephalitis, cerebral vascularity, cerebral atheromasia, cerebral sclerosis and cerebral tumors. Cerebro-cellulitis, a new term intended to designate the sole primitive lesion of the psychic cell, should be included in this list. The same cerebral disease, appearing in individuals of the same age, may produce different mental syndromes. The same cerebral disease, appearing in

individuals of different ages, produces entirely different mental syndromes. Different cerebral diseases may produce identical mental syndromes. Mental syndromes, taken singly, do not enable the diagnostician to decide as to what cerebral disease they are symptomatic of. Examination of sensibility of motricity of the functions of language are indispensable. Dr. Marchand closes his paper with the following remarks: "Psychiatry is only a small branch of neurology. Its importance is due to the relations it bears to legal medicine and sociology.

Novocain.—The chemical composition and physiological properties of novocain are given in an article published in *Deutsch. Med. Wochenschrift*, 1905, No. 42, by Prof. Braun, a translation of which appears in the *Buffalo Medical Journal*, September, 1906. Novocain is the monochlorhydrate of p-amino-benzoyl-diethylamino-ethanol with the formula



The salt crystallizes from alcohol in needles which melt at 156 deg. C. It dissolves in water in the proportion of 1:1, and in cold alcohol as 1:30 (the description and pharmacology are given word for word as in Biberfeld's account). Prof. Braun gives details of tests made with different solutions of novocain, ranging from 1 to 10 per cent. He found that novocain was a local anesthetic with a strong, yet, in comparison with some others, a transitory action like that of tropacocain. In order to obtain results comparable with those got from cocain, it would be necessary to use concentrated solutions and large doses in proportion to the slight toxicity of novocain. However, the necessity for this is readily and successfully overcome by the addition of supparenin to the novocain solutions. For instance, taking a 0.1 per cent. isotonic novocain solution, to 100 c.cm. add 5 drops 1:1000 supparenin solution and inject into the skin of the forearm. Cutaneous wheals appear on the forearm and there is

marked anemia of the injected tissues. The analgesia lasts over an hour; no reaction of any kind. Half per cent. novocain solution, with addition of a drop of suprarenin solution, 1:1000 to each c.cm.; one c.cm. injected beneath the skin of the first phalanx of the fourth finger. In 10 minutes finger anesthetic and anemic. Sensibility began to return in 65 minutes. Another hour elapsed before complete return of sensibility. No after pain. Professor Braun considers that the superiority of novocain-suprarenin solutions to cocain-suprarenin solutions has been confirmed by clinical experience, at least for tissue injections. No toxic collateral effects or local irritation have been noted from novocain. Professor Braun has used novocain in 150 operations in which the cases were suitable for tissue injections. Among these are represented the anesthetization of the entire external nose (30 c.cm., 5 per cent. solution, without suprarenin), the extirpation of a cancer of the scalp the size of the palm of the hand, including repair of the defect by skin transplantation from the arm, uranoplasty, staphylorrhaphy, enterostomy, laparotomy for tuberculous peritonitis, operation for inguinal hernia (Bassini's method), castration, hydrocele operation, with removal of the tunica, and the like.

Poisoning by Eggs.—In an inaugural thesis on the subject of poisoning by cream puffs, Dr. Le Coq (*Journal de Médecine*, May 6th, 1906) calls attention to the existence of a poison in the eggs of hens, which he calls ovotoxin. He says that in most cases when poisoning occurs after the use of cream puffs, or similar food containing eggs, it is caused by this toxin. The toxin, he says, may be present in a fresh egg, but rapidly develops in stale eggs. It is generally recognized by a peculiar putrid odor, which is most marked in the yolk, but may also be present in the white. Bakers are warned against using eggs which have been cracked for a time. These should not be used with cream, which seems to be especially suited to produce ovotoxin. The use of desiccated and preserved eggs is condemned. It seems wonderful to think that ovotoxin does not produce deadly results more frequently. In view of the enormous consumption of eggs throughout the world—raw eggs, boiled eggs, scrambled eggs, plain omelets, not to speak of the addition of eggs to pastry—one is surprised to learn that ovotoxin should have been so recently discovered. However, it

may be that the combination of stale eggs with cream is, as Dr. Le Coq says, peculiarly suited to produce ovotoxin. If so, it is an argument in favor of the view that one may eat home-made pastry with more confidence than the more ornate productions of the public pastry-cook.

J. J. C.

PERSONALS.

DR. EDMUND E. KING, having no opposition in East Toronto, was elected to the Medical Council for that constituency.

DR. F. N. G. STARR was elected a member of the Senate of Victoria University. We congratulate the University.

DR. W. A. BALL died the first week in November at his residence in Bathurst Street, after a short illness.

Correspondence.

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

PHYSICIANS' FEES FOR LIFE INSURANCE EXAMINATIONS IN THE PROVINCE OF QUEBEC.

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

If you think that it would be necessary in the interest of the medical profession to publish the enclosed communication in your journal, I would be much pleased.

A few years ago nearly all the life insurance companies of North America used to pay to physicians \$5.00 per examination. Since the recent inquiries about the administration of the companies, which have shown wrongful and wasteful expenditures of money, etc., the companies, having decided to economize, began by cutting down the physicians' fees to \$3.00.

At the present time strong efforts are being made in the Province of Quebec against this decision of the insurance companies. About a year ago the Medical Association of the district of Joliette adopted unanimously the following resolutions: "No physicians of this district will make any examination for the insurance companies for less than \$5.00 and for the mutual benefit societies for less than \$2.00." And nine Medical Associations, which cover almost all the Province of Quebec, have adopted similar resolutions. These Medical Associations are: Sherbrooke Medical Society, Wolfe Medical Society, Beauce Medical Society, Chicoutimi Medical Society, Terrebonne Medical Society, Shefford Medical Society, Portneuf Medical Society, Lac St. Jean Medical Society and Three-Rivers Medical Society.

The Congress of Physicians of the French Language, held at Three-Rivers June 26-28, 1906; examined this question, and adopted resolutions to support the movement begun by the associations. Even more, the Board of Governors of the College of Physicians and Surgeons of the Province of Quebec took up this question at a meeting held on the 4th of July, 1906, and adopted the following resolution at the next meeting, September 26th, 1906: "Proposed by Dr. L. A. Normand, seconded by Dr. Laurendeau, That the Board of Governors of the College of Physicians and Surgeons of the Province of Quebec entirely approve of the position taken by the medical societies *re* fees for exam-

inations for life insurance companies and mutual benefit societies; and that consequently the Board of Governors strongly recommend to physicians in the Province of Quebec not to make any life insurance examination for less than \$5.00 and for not less than \$2.00 for the mutual benefit societies. Adopted unanimously. P. V. Faucher, M.D., secretary, C.M.C.P.Q.”

It may also be remarked that several medical societies in the United States have adopted resolutions similar to those adopted in the Province of Quebec.

Yours truly,

ALBERT LAURENDEAU,
*Secretary, Medical Association
of the district of Joliette.*

News of the Month.

THE WORK OF THE NEW YORK POST-GRADUATE MEDICAL SCHOOL AND HOSPITAL.

At the moment of writing this article there are ninety graduates in medicine in attendance on the clinics of the institution. The larger number of the matriculates take the general course, which consists of clinical instruction in medicine and surgery, from nine o'clock in the morning until ten o'clock in the evening, with an intermission only for luncheon and dinner. The general practitioner who feels the necessity for a brushing up so that he may be able to recognize cases, even if he does not undertake their continued treatment, finds this course for a few weeks the best adapted to his wants. But there is a very large contingent that come for special instruction in the specialties, for example, in diseases of the eye, diseases of the ear, dermatology, operative surgery, laboratory work in histology, pathology and bacteriology. It is for this latter class that the constant advancement in the work of the hospital is intended. During the past autumn the laboratory has been notably enlarged, the number of beds for patients with diseases of the eye and ear increased, and two new teachers in dermatology have been named.

It is hoped that it will be unnecessary for any practitioner of medicine wishing to know a specialty to hereafter go abroad for that purpose, but that he may in New York and in the Post-Graduate Medical School build upon his general training a superstructure which will enable him to be a specialist in the branches we have mentioned, or in orthopedic surgery. In this latter department the Post-Graduate Medical School has a workshop in which all the apparatus necessary for the patients is made by an exceedingly skilful man who was largely trained to his work by the late Professor A. M. Phelps. Then, again, in the study of tuberculosis, there is a morning and evening dispensary for people who are engaged in their ordinary occupations who are affected with tuberculosis. Added to this is a small, perfectly equipped hospital for eight patients where selected cases that are not doing well in the dispensary may be placed for a number of weeks and subjected to the method of treatment which was first adopted in the Post-Graduate by Dr. John F. Russell, and is now carried on by us under the direction of one of the former

members of his staff, Dr. Mersereau. The Department of Operative Surgery on the Cadaver is, of course, open only during the autumn and winter months. That, as well as the Anatomical School, is now in full operation.

It is the endeavor in this school to teach any practitioner anything in medicine or surgery that he may wish to know. At one time a distinguished professor expressed the fear that men would go out from such an institution inclined to undertake things beyond them, which they had seen so easily done by the professors of general surgery, but this is not found to be the case. Men leaving here have a more correct appreciation of the importance of a thorough training than when they came, and are not among those who really undertake what they do not understand. The standard of medical attainment in our country has certainly increased since the establishment of Post-Graduate Medical Schools in Philadelphia, Baltimore, Chicago and New York.

MEDICAL COUNCIL ELECTIONS.

The following candidates have been elected by acclamation to the Medical Council of Ontario from the territorial divisions named: Division No. 1, Dr. J. L. Bray, Chatham; 3, Dr. J. MacArthur, London; 4, Dr. J. A. Robertson, Stratford; 6, Dr. Henry, Orangeville; 7, Dr. P. Stuart, Milton; 8, Dr. S. H. Glasgow, Welland; 10, Dr. E. E. King, Toronto; Dr. H. Bascom, Uxbridge; 13, Dr. S. C. Hillier, Bowmanville; 14, Dr. A. E. MacColl, Belleville; 15, Dr. W. Spankie, Wolfe Island; 16, Dr. J. Lane, Mallorytown; 17, Dr. M. O. Klotz, Ottawa.

In Division 2 there is a contest between Dr. John Mearns, Woodstock, and Dr. J. H. Carmack, of St. Thomas; in No. 5 between Dr. L. Brock, Guelph, and Dr. Vardon, Galt; in No. 9 between Dr. R. Gibson, Saulte Ste. Marie, and Dr. Aylesworth, Collingwood; in No. 11 between Dr. A. A. Macdonald, Dr. J. S. Hart, and Dr. B. L. Riordan, Toronto.

Amalgamation of the "Therapeutic Gazette" with the "Medical Age and Medicine."—It is announced that the *Therapeutic Gazette* will be amalgamated with *The Medical Age and Medicine* on January 1st. The new journal will be known as *The Therapeutic Gazette*, incorporating *Medicine and The Medical Age*.

The Physician's Library.

BOOK REVIEWS.

A Text-Book of Obstetrics. By BARTON COOKE HIRST, M.D., Professor of Obstetrics in the University of Pennsylvania. Fifth revised edition. Octavo of 915 pages, with 753 illustrations, 39 of them in colors. Philadelphia and London: W. B. Saunders Company. 1906. Cloth, \$5.00, net; half morocco, \$6.00, net. Canadian agents: J. A. Carveth & Co., Ltd., Toronto.

Any book written as the result of actual experience in a certain line of work has a value attached to it that is well nigh priceless. Such is Dr. Hirst's "Text-Book of Obstetrics," which now appears in its fifth edition. The author has for twelve years or more given his time exclusively to gynecology. He is, therefore, in a position to speak effectively to his readers, not only as a specialist in this branch of study, but as a teacher for many years of medical students.

The fifth edition is not the fourth altered a little here and there, but is practically a new book, larger and yet condensed. Dr. Hirst has given considerable space to puerperal infection and gestational toxemia. We commend the book to any desirous of securing a work on obstetrics that is practical, crisp and entirely modern.

International Clinics. A quarterly of illustrated clinical lectures and especially prepared original articles, etc., etc. (For completion of title page, see review of Vol. I. of 16th series, reviewed on page 417, Vol. XIX., *Canadian Journal of Medicine and Surgery.*) Vols. II. and III., sixteenth series. 1906. Philadelphia and London: J. B. Lippincott Co. Canadian Agent: Chas. Roberts, Montreal, P.Q.

Quite a number of men eminent in the profession have contributed articles to Vol. II. of this series, among them being Dr. A. E. Gallant, of New York; Dr. J. W. Ballantyne, of Edinburgh; Dr. W. A. Dorland, of Philadelphia; Dr. J. M. Anders, of the same city; Dr. Cuthbert Lockyer, of London, Dr. J. H. Lloyd, of Philadelphia; Dr. W. H. Porter, of New York; Dr. J. J. Walsh, of the New York Polyclinic, and Professor Rovighi, of the Royal University of Bologna, Italy.

The volume covers a wide field and includes Treatment, Medicine, Pediatrics, Neurology, Surgery, Obstetrics and Laryngology. A short, interesting, crisp article is one by Dr. Jas. M. French, of California, on "The Prevention and Treatment of Acute Nephritis." A lecture that is practical and entitled "Clinical Types of Persistent Vomiting," is from the pen of Dr. Herbert C. Moffitt, also of California. He divides his types into Organic Nervous Disease, Toxic Vomiting, Gastric Conditions Causing Vomiting, Recurrent Vomiting in Children, and Nervous Vomiting. The article is worthy of careful reading. Dr. W. A. Newman Dorland gives over twenty pages to "The Female Perineum and its Repair," and to gynecologists especially is particularly interesting. This Clinics is improving as each series comes out.

Those who have contributed to Vol. III. of this series include such men as Ernest A. Gallant, of the New York School of Clinical Medicine; Edward C. Gill, of the University of Denver; C. G. Cunston, of Boston; E. Scott Carmichael, of Edinburgh; Bertram Abrahams, of Westminster Hospital, London; H. S. Clogg, of Charing Cross Hospital; Jos. M. Patton, of the Chicago Polyclinic, and A. N. McGregor, of Glasgow Royal Infirmary.

Volume III. consists of twenty-six lectures, comprising several on each of such subjects as Treatment, Medicine, Surgery, Obstetrics, Rhinology, Otolaryngology and Pathology. One that is particularly interesting is that by Dr. T. T. Thomas on "The Surgical Complications of Pneumonia and Their Treatment." Another well worthy of careful perusal is from the pen of Dr. Frederick Griffith, New York Academy of Medicine, entitled, "Hemorrhagic Diathesis Complicating Surgical Work." One lecture that should command particular attention is that on "The Predisposition to, and the Prevention and Treatment of, Pulmonary Tuberculosis," by Dr. John W. Wainright, of New York.

The Canadian agent for the publishers is Chas. Roberts, of Montreal, from whom any of their books can be secured.

A Text-Book of Genito-Urinary Diseases. By DR. LEOPOLD CASPER, Professor in the University of Berlin Translated and edited by CHAS. W. BONNY, M.D. Philadelphia: P. Blakiston's Son & Co. 1906. Toronto: Chandler, Ingram & Bell.

One Casper, a professor in the University of Berlin, made all the world his debtor when, about the middle of the last century he issued his classical "Hand-book of Forensic Medicine."

From another of the same name and position comes the volume before us. Prof. Leopold Casper, its author, gains our goodwill at the outset by a graceful tribute paid to Sir Henry Thompson,

from whom he received his first impetus in the direction of the scientific study of genito-urinary diseases.

The translator and editor of the American edition, Dr. C. W. Bonny, advances the claim that Casper's work represents the best teaching in this department of surgery at present available.

Without going quite that far it is safe to admit that there was abundant room for this book, that it is well written and well translated, that it is based upon an enormous clinical experience, that modern methods of investigation are utilized to the fullest extent, and that sound, conservative judgment is manifest upon every page.

With some of the positions taken not every reader will agree. For example, in the treatment of acute specific urethritis a preference is expressed for the nitrate over the newer and less irritating salts of silver. In the selection of an operative procedure for the relief of prostatic hypertrophy, the need for individualizing the patient is well brought out. To the modern suprapubic section as first performed by Belfield, and more recently improved by Freyer, the writer seems in a general way to incline.

To exact methods of diagnosis, such as the use of the Luys segregator, is given the credit of a fall within the last ten years, in renal operations, of from 26 per cent. to 17 per cent. Since, by the aid of this ingenious and practical instrument just named it is possible for any one of moderate expertness to obtain the urine separately from each kidney, it is no longer justifiable to approach a kidney surgically until this has been done.

In the opinion of this reviewer the purchase of Casper's work by any surgeon in active practice will never be regretted, and the purchaser will gain a new view point from which this interesting class of diseases may be studied.

N. A. P.

American Practice of Surgery. A complete system of the science and art of surgery, by representative surgeons of the United States and Canada. Editors: JOS. D. BRYANT, M.D., ALBERT H. BUCK, M.D., of New York City. Complete in eight volumes, profusely illustrated. Volume I. New York: William Wood & Co. 1906.

The publication of "American Practice of Surgery" has been looked forward to for some time past, and, judging from Vol. I., few of its readers can express any disappointment. It is in every respect a splendid work, and, by the time the last volume appears, should stand for many years as one of the most complete and modern works on surgery that has yet come from the press.

We find that the contributors to Vol. I. include such men as Harvey R. Gaylord, of Buffalo, N.Y.; Jas. E. Moore, of Minneapolis, Minn.; Harlow Brooks, of New York; Preston M. Hickey,

of Detroit; J. C. Bloodgood, of Baltimore; P. M. Pilcher, of Brooklyn, and Theodore A. McGraw, of Detroit. To these men and others not named Vol. I. is a credit, composed, as it is, of five parts devoted to surgical pathology, complications and sequelæ, general surgical diagnosis, general surgical treatment and general surgical prognosis. Judging from even a hasty glance through the work, "American Practice of Surgery" should, and doubtless will, command the respect and confidence of those who consult its pages."

W. A. Y.

Genito-Urinary Diseases and Syphilis. By HENRY H. MORTON, M.D., Clinical Professor of Genito-Urinary Diseases in the Long Island College Hospital; Genito-Urinary Surgeon to the Long Island and Kings County Hospitals, and the Polhemus Memorial Clinic. Illustrated with 158 half-tone and photo-engravings and 7 full-page colored plates. Second edition, revised and enlarged. Royal octavo, 500 pages. Bound in extra cloth. Price, \$4.00, net. Philadelphia, Pa.: F. A. Davis Company, Publishers, 1914-16 Cherry Street.

Perhaps few subjects have advanced during the past decade more than that of genito-urinary surgery. Operations upon the bladder and pelvic region are performed now that would not have been dreamed of a few years back. For that reason, it is essential that any book on so important a topic should be subjected to careful revision from time to time. Dr. Morton has gone over this, his second volume, very carefully, the result being that it should receive a goodly reception at the hands of the profession generally.

Readers of this book will find in it a full account of the most recent methods of treatment of prostatic enlargements. He has also discussed at some length prostatic inflammation, as also the diagnosis and treatment of surgical diseases of the kidney.

W. A. Y.

In the Van. By PRICE-BROWN. Toronto: McLeod & Allen. Price, \$1.25.

Essentially a woman's novel, and being the work of a Canadian, it should be interesting to the ladies of this country. There is more than one heroine in the book, though Helen Manning is the leading lady. This lady, who marries Lieutenant Manning in London, in November, 1813, sails shortly afterwards with her husband in the *North King*, a man-of-war, carrying British troops and stores, and after an eventful voyage lands at Halifax. She subsequently accompanies her husband overland from Halifax, via Quebec, Montreal and Bytown, to Penetanguishene. The incidents of the march, descriptions of scenery, the reflec-

tions of the bride, with brief accounts of life at Halifax, Quebec, Montreal and Penetang are detailed in her diary.

Camping in the Canadian woods is eloquently worded. "Down in the valley where the men pitch their tents may be still, but away in the tops of the tall pines a whole legion of elfs are sounding their harps and scampering through the branches."

A rival to Johnny Courteaur appears in the shape of "Bateese," the French-Canadian woodsman, who is assisted in the production of dialect songs by his *bonne femme*, Emmeline.

There is another love story in the book, too, that of a young lady of Halifax, Maud Maxwell, who, having two strings to her bow, elects to keep "Dr. Beaumont," and rejects "Captain Morris," an English officer, who had won laurels at Lundy's Lane. Dr. Beaumont is not the kind of French-Canadian who wins the admiration of his French-Canadian countrymen. The illustrations by F. H. Brigden are very fine.

J. J. C.

Year-Book of Pediatrics and Orthopedic Surgery. Edited by ISAAC A. ABR, M.D., and JOHN RIDLON, A.M., M.D. Chicago: The Year Book Publishers.

This little volume will prove most valuable to every ambitious practitioner who intends to keep abreast of the times in all which relates to the diseases of children, whether medical or surgical. The busy physician may not be able to keep in touch with all the advances reported in the medical and surgical journals by going to its pages for his information, but can here find wisely chosen and well digested excerpts from journals, home and foreign, giving most valuable information pertaining to the work of the last year. Both in pediatrics proper and orthopedic surgery the work is well done, and this little book may profitably find a place on every practitioner's book-shelf.

B. E. M.

A Manual of Midwifery. By THOMAS WATTS EDEN, London. Assistant Obstetrical Physician and Lecturer on Midwifery, Charing Cross Hospital; Examiner in Midwifery and Diseases of Women, Conjoint Board, R. C. P. & S., etc., etc. London: J. & A. Churchill, publishers. Canadian agents, J. A. Carveth Co., Ltd. Price, \$2.50.

This book is decidedly the most valuable short work which has appeared on the subject of obstetrics during the present year. It presents the results of the most modern researches in embryology, histology and physiology concerning the implantation and development of the ovum and the consequent changes in the mother. The one hundred and fifty-five pages in this section are perhaps the most original we have read on a subject which has heretofore been indefinite and unsettled. Sixty-three pages only are given

to the consideration of the mechanism and treatment of normal labor, but the illustrations in this section are excellent and the text concise and clear. Two hundred and twenty-five pages are devoted to abnormal labor, the puerperium and obstetric operations. Each of these important sections is well illustrated and the accompanying text carefully prepared and reflecting the most painstaking London practice.

The most commendable feature of the book is its originality. Opinions and quotations are not dished up to you as per usual, but experimental proof and sound logic given in support of each statement. Many classical fallacies commonly taught and practised are exposed, and facts drawn from the experience of the great lying-in hospitals and the well appointed laboratory substituted. Contrary to many English text-books, this one contains a wealth of original illustration and is delightful reading. The binding and paper are of the best, and the book deserves to rank with Dr. Adam Wright's work as "the two best text-books."

E. A. M'C.

A Guide to Urine Testing. For Nurses. By MARK ROBINSON, L.R.C.P., L.R.C.S.Ed. Third edition, revised. Bristol: John Wright & Company. London: Simpkin, Marshall, Hamilton, Kent & Company, Limited. 1906.

Nurses undoubtedly should know how to make the common urinalysis, and I know of no book that is more easily understood, more concise, or more simple on this subject than this is. It is not explicit enough to make it of any great value to the average medical practitioner, and of course the student of the present day should be more familiar with this subject than the practitioner of some years standing.

A. J. J.

Clinical Lectures on Neurasthenia. By THOMAS D. SAVILL, M.D.Lond. Third revised and enlarged edition. London: Henry C. Glaisper, 57 Bigmore Street W. New York: William Wood & Co. 1906.

Dr. Savill's view of neurasthenia is that though mental symptoms predominate, the clinical picture of the disease points to a derangement of the entire nervous system—brain, spinal cord, peripheral nerves, and sympathetic nervous system.

The author shows, in an analysis of 103 private cases of neurasthenia, that about 80 per cent. were due to some kind of auto-intoxication (toxemia). Among such auto-intoxications he mentions intestinal derangement, gastric disorder, chronic appendicitis, pyorrhea alveolaris, oral sepsis, blenorrhagia, antral disease, chronic alcoholism, excessive tobacco smoking and incipient phthisis.

Organic disease, as well as general disorders—*anemia* and *lithemia*—must be distinguished from *neurasthenia*. Great confusion arises in diagnosing it from *hysteria*.

The abrupt onset of, the attack, the intermittency of the symptoms, the presence of *anesthesia*, *paralysis*, *convulsions*, distinguish *hysteria* from *neurasthenia*.

Dr. Savill sketches his portraiture of *neurasthenia* from a very extensive group of living models. His conclusions as to its etiology, pathology, diagnosis, prognosis and treatment appear to be sound. His style is clear and concise. The book is well printed, and is deserving of patronage.

J. J. C.

The American Illustrated Dictionary. All the terms used in *Medicine*, *Surgery*, *Dentistry*, *Pharmacy*, *Chemistry* and kindred branches, with over 100 new tables. By W. A. NEWMAN DORLAND, M.D. Fourth revised edition. Octavo of 836 pages, with 293 illustrations, 119 of them in colors. Philadelphia and London: W. B. Saunders Company. 1906. Flexible Morocco, \$4.50, net; thumb indexed, 5.00, net. Canadian agents: J. A. Carveth & Co., Toronto.

The vocabulary of medical science is increasing at such a pace that a dictionary of medical terms, no matter by whom it is compiled, becomes very quickly old and stale unless revised annually. Dr. Dorland now presents his fourth edition to the profession, and in it he has tried to include the many new words that are coming to light almost daily. He claims to have added about 2,000 new words to this edition of his work, each of which he has fully defined. Several new colored plates have been added, illustrating the subjects of *measles*, *appendicitis*, *diphtheria*, *gallstones*, *Leishman-Donovan bodies*, and *nephritis*.

The Practice of Pediatrics. Edited by WALTER LESTER CARR, A.M., M.D. New York: Lea Brothers & Co.

Dr. Carr's name as editor of a work is sufficient guarantee of thoroughness, therefore we are able to say this work is no exception to any of his previous efforts.

It might well be called an encyclopedia, for it is a collaboration of fourteen well-known authorities on this subject, two, Drs. Riviere and Poynton, being well-known pediatricists in England, the remaining men being well and favorably known throughout the North American continent. It is really a book of reference for the practitioner rather than the student.

Subjects taken up singly by various men of variety of thought naturally lack continuity, therefore reference to complications or sequelæ occurring in one system dependent upon a diseased condition of another system cannot be made, the work being divided amongst the several collaborators.

No expense has been spared by the publishers: well bound, well printed, containing one thousand pages, with thirty-two full-page prints and one hundred and ninety-nine engravings, artistically and faithfully illustrating the subject-matter. The work has few flaws; perhaps too diffuse in parts, for instance, fibrosis of the lung is long drawn out, covering eleven pages; the subject could have been as fully described in half the space. Again, the various cerebral and spinal palsies are no better classified than they were ten years ago. The subject is chaotic, we all know, difficult to read, mark and inwardly digest. Section III., the article on general principles involved in substitute feeding, we think the best, clearest and most concise yet presented to the medical public. It will well repay careful perusal by any practitioner, giving a thorough, scientific explanation and directions with which the various milk, cereal, whey and broth mixtures may be advantageously employed, without simply and empirically juggling with the old 4. 1. 7. mixture given by Dr. Meigs to the profession a quarter of a century past. This section embraces about eighty pages, clearly and well written, and contains no padding. The careful examination of the excreta is strongly insisted on; the various diarrheas resulting from the non-digestion of sugars, fats and proteids is carefully described, so that the attending physician by care and study can see in what particular his mixtures are at fault. The work, although possibly not at present filling any necessary void, is welcome, and well worthy of a place in the physician's library.

A. B.

A Text-Book on the Practice of Gynecology. For Practitioners and Students. By W. EASTERLY ASHTON, M.D., LL.D., Professor of Gynecology in the Medico-Chirurgical College of Philadelphia. Third edition, thoroughly revised. Octavo of 1,096 pages, with 1,057 original line drawings. Philadelphia and London: W. B. Saunders Company. 1906. Cloth, 6.50. net; half morocco, \$7.50, net. Canadian agents: J. A. Carveth & Co., Toronto, Ont.

It seldom falls to the lot of any medical writer to be called upon to publish, inside of one year after the original volume appears, a third edition of his work. It but goes to show that his book has been appreciated and has doubtless merited the reception it met with. It would seem almost impossible for an author to be able to revise to any great extent a volume so recent, but Dr. Ashton seems determined to only allow his name to appear as author of a book containing, not only up-to-date subject matter, but the soundest kind of teaching. Another point about this author's book is that its contents are the outcome, at least largely so, of his own experience, that being more than many another

medical writer can claim. To show how thorough has been the revision of Vol. II., we find that "thirty-two of the illustrations have been re-drawn and seventy-one have been removed. Eighty-two new illustrations have been added, and the work now contains 1,057 pages, which are eleven more than in the previous editions."

W. A. Y.

Kiepe's Materia Medica and Therapeutics. A Manual for Students and Physicians attending post-graduate courses. By EDWARD J. KIEPE, Professor of Materia Medica in the Department of Pharmacy, and Adjunct-Professor of Materia Medica and Pharmacology in the Medical Department, University of Buffalo. In one 12mo volume of 265 pages. Cloth, \$1.00, net. Philadelphia and New York: Lea Brothers & Co., publishers. 1906.

One of the most concise and up-to-date productions in materia medica and therapeutics of the day. A ready reference and of a size suitable to be constantly carried by the student without inconvenience. Brief works of high scientific character are the greatest boons to the present-day student.

A. J. H.

Greens' Encyclopedia and Dictionary of Medicine and Surgery. Vol. II.—Bread to Ear. Edinburgh and London: Wm. Greens & Sons.

Vol. II. of this splendid series has just recently come to hand. We find among the contributors to the second volume such men as Dr. Watson Williams, Mr. A. H. Tubby, D. J. W. Ballantyne, Mr. G. A. Berry, Dr. J. Crawford Renton, Dr. Andrew Davidson, Dr. (now the late) A. Lockhart Gillespie, Dr. Maurice Craig, Dr. J. S. Fowler, Dr. J. Graham Fowler, Dr. H. Radcliffe Crocker, Dr. A. James, Dr. A. Logan Turner, Mr. A. H. Cheatele, Dr. C. A. Starrock, and a number of others.

Like Vol. I., this book is in itself nothing short of an encyclopedia, containing a short, boiled-down description of almost everything in medicine and surgery between the letters B to Ear. Some of the articles are particularly able, and in some cases lengthy. We refer specially to the following: diabetes mellitus, diabetes insipidus, deformities, cytoscopy, cornea and constipation. We can commend Greens' Encyclopedia and Dictionary as a *multum in parvo*, and undoubtedly worth the price charged by the publishers.

W. A. Y.