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THE THERAPEUTICS OF CONVERSION, OR THE VIS MEDICATRIX SPIRITUS SANCTI AS A CURE FOR EROTIC NEURASTHENIA.—WITH A REMARKABLE CASE.

BY A GRADUATE OF TRINITY MEDICAL COLLEGE.

The following history was given me by a medical friend: "I was born in the year 1852 on a farm in the township of R—. My parents were industrious, honest people, but not too well supplied with this world's goods, being among the pioneers of the old county of L—. It took them all their time, and a good deal of overtime, to provide for a family of four sons and four daughters. My mother possessed a highly neurotic temperament, was sensitive, imaginative, and intensely religious, bordering at times on religious mania. She lived a life of constant prayer and meditation, and was filled with the most unbounded faith in the promises of revealed religion. Her Bible was almost the only book she cared to read. Newspapers were her special aversion.

"She had a great dread lest any of her beloved children should become a castaway, and she was instant in season and out of season in instruction and reproof.

"My father was quiet and morose, and a great reader. At middle life his disposition underwent a great change, and he became very affectionate, as well as jovial and affable. My mother

died of paresis at the age of seventy-seven. My father still lives, and is in his 84th year. In September, 1898, he had an attack of right hemiplegia, caused by cerebral effusion, from which he has partially recovered, and is now able to speak fluently and walk a little.

"In my childhood and early youth I was of an amorous disposition, and was forever falling in love with girls of my own age. Up to the age of fourteen I was a bright, happy, active boy. At that age, alas! 'a change came o'er the spirit of my dream.' An erotic demon entered into me, and in the same year that I took upon me my baptismal vows and went to the Holy Communion, I became a victim of the soul-hardening and body-destroying practice of sexual impurity. I was not taught this habit by anyone, but as well as I can remember gave way to a natural impulse. I had never been taught or warned by anyone of the danger to health, of mind and body, involved in this ruinous practice, but that faithful mentor called conscience, told me that I was sinning against the most High. I soon began to feel that there was something wrong with me. I wondered why it was that I had grown so shy, why it was that I could not look other people in the face, why my memory was getting weaker, and why I began to lose interest in every kind of amusement. I went from the common school to the grammar school at C—, and at the end of a year passed the County Board of Education, obtaining at the age of seventeen a teacher's certificate, First-class, Grade A (with honors). I obtained employment as teacher in S. S. No. 6 and 7, R—, at a salary of \$220 per annum. I soon found that I was in a poor condition, mentally, to control children, having lost moral control of myself. I was intensely anxious regarding my success in the school, and was in constant dread of failure, lest I should have to go home and become a burden on my parents. I made a desperate stand against my besetting sin, and succeeded in abstaining altogether for over six months, when the demon regained control. I now realized that I must 'conquer or die,' and at the same time knew that I was unable to gain the victory without help. In this extremity I implored the assistance of Him who overcame the world, the flesh, and the devil, and I received it. Since that day I have never been tempted to commit the offence. A friend told me about the great danger and injury of this habit, and that was sufficient to strengthen my resolve. In the meantime I had become neurasthenic, the predisposing cause being *sexual weakness*, the exciting causes being the *anxiety* and *worry* of teaching and controlling children, and the dread of failure.

"The symptoms I experienced were: First profound hypochondria; second *walking vertigo*, in which I seemed to be treading on some elastic material which sank beneath me at every step.

My mental misery reached a climax, from despair I passed to indifference, and as soon as I became careless about myself, I became happier. During the summer and autumn these feelings gradually passed away. I became stronger and took an interest in out-door sports, particularly duck shooting. By the end of the year I was in fairly good health and spirits.

"I now formed the determination to study medicine as soon as I had sufficient funds saved. I continued teaching till July, 1873, and entered Trinity Medical School in October of that year. At this time I was deeply in love with F. B., a young lady somewhat above me, socially, and who did not reciprocate my passion. Hoping to win her regard, I applied myself with zeal to the pursuit of medical knowledge, and no more hardworking, conscientious student ever sat within the walls of old Trinity. I got through the session in good health, and, returning home, was employed at farm labor during the vacation, working for a dollar a day and board. The change from student to hired man was too great, and I began the second session in a nervous condition, although appetite was good and muscles firm, I was *anemic* and *anxious*, and my old enemy neurasthenia began to reappear. I lived a life of the strictest continence, and avoided female society, but I felt that the sexual organs were getting weaker, and nocturnal erotic dreams became frequent. As the session went on I felt that I was giving way physically, morally and mentally, but knew I must hold out till after the examinations. I had set my heart on getting honors, and intended to compete for the gold medal at the following session. My ablest opponent was Mr. W., now a Professor in Trinity Medical College. The pace was hot, but I managed to hold out till after the primary examinations, when it was found that, although the learned professor had obtained the highest aggregate, viz., 95 per cent. against my 93.2 per cent., I had defeated him in his own subject, in which I obtained full marks, or 100 per cent. So weak had my nervous system become that, while the questions were being read out in the examination room, the excitement caused an orgasm, the only diurnal orgasm I ever had of an involuntary kind.

"As a result of the competition I was awarded the position of Resident Assistant Surgeon in Toronto General Hospital, which I accepted and entered on the duties in July, 187—. At this time my nervous system was in a most pitiable condition. So intense had the neurasthenia and vertigo become, that I was unable to fix my attention upon a book for more than a few minutes at a time. I feared insanity, and dreaded epilepsy. I was in a state of constant pathophobia. Dr. D., the other assistant, and I, rowed across the bay every morning, bathed in the cold water of the lake and rowed back in time for breakfast. I derived some

benefit from the exercise and cold bathing. The summer passed, and my final session began. I found that I was utterly unable to go on with the honor work, or, indeed, to do any reading at all, and as my slender stock of cash was about at an end, I could not afford to lay off for a year. I was thus reluctantly compelled to say farewell to the gold medal, and gave up all hope of winning Florence. I had accustomed myself to the idea that my only hope of winning her regard was in distinguishing myself at the final examination. So I said in my disappointment and sorrow, 'God's will be done,' and resigned myself to a pass course. This I easily succeeded in, standing next to the honor men, although during the whole final session I never turned a page of either text-book or note-book. I had to depend entirely on what I had picked up in the hospital and what I remembered of the lectures at the school.

"Having graduated and passed the Council and become a legally qualified medical practitioner, I began to brighten up a little, but found the neurasthenia cloud dissolving very slowly. I began to look about for a remedy for what I believed to be the cause of my malady, and made the fatal mistake of seeking relief in illicit sexual intercourse, thus adding sin to sin, and making recovery all the more difficult. After leaving the hospital in July, 187—, I spent a few comparatively happy weeks at home before entering upon private practice. Being too conscientious to continue to indulge in unlawful intercourse, I concluded that matrimony was the proper remedy, and after several failures I was happily married in November, 1878. I entered into the holy estate of matrimony with no other idea than as a therapeutic measure, trusting not in the all-wise Creator, but trusting rather in the so-called *Vis Medicatrix Naturæ*, which I had been taught by the learned Faculty resides inherently in the human body. I said nothing to my wife of my motives in contracting an early marriage. She loved, and still loves me, very dearly, unworthy as I have been of her esteem. Twenty years passed away, and ten healthy children had been born, but the dark cloud of moral leprosy still hung over me like a pall. I was still in a condition of partial neurasthenia. The heathen goddess, *Vis Medicatrix Naturæ*, had failed to cure me. I have paid a good deal of attention to gynecology, finding it a useful as well as profitable line of practice; here again the erotic demon met me. I found it impossible 'to look upon a woman' without 'lusting after her,' and thus committing 'adultery with her already in my heart.' In this way, no doubt, my mental malady was unduly prolonged. In the winter of 1877 I had a fall from horseback on the vertex of the cranium, but felt no ill effects at the time.

"During the past twenty-one years, as well as during my whole life, the *Vis Medicatrix Spiritus Sancti* has been striving with

me, but I was unable to 'hear His voice,' having 'hardened my heart.' During the past year or so my heart had begun to soften, and the voice Divine to make itself heard. Family cares and anxieties tended to bring about a change of heart. Solicitude regarding my wife and children aided in removing the selfishness of my nature. The constant desire and effort to help others during the recent epidemic of influenza softened me. I began to realize the hardness, the wickedness, the selfishness, the disobedience of my past life, and to think of the beneficence of the Saviour of men; my eyes filled with tears at the thought of His patience and suffering. I began to call upon His name and repeat His words. I thought of absent friends whom I had almost forgotten, and desired forgiveness from *one* in particular whom I had deeply and wrongfully offended. Matters reached a climax on the morning of March 1st, 1899. I had, like many others during this epidemic, suffered from a pathophobic fear of sudden heart failure. On the evening of February 28th I was called to attend a midwifery case eight miles out in the country. The patient was the wife of Roderick McLennan, a pious Scotch farmer, a man full of Divine grace. I found the patient suffering from concealed hemorrhage; uterus distended, with blood and fluid; os dilated, membranes protruding, pains weak, surface cold. I at once ruptured the membranes, when after the escape of the fluid contents, she was rapidly and safely delivered of a twelve-pound man-child. I then lay down and slept about an hour, after which I took supper and started for home at two o'clock a.m.

"On my way out, the West wind had been blowing half a gale in my face, and it was cloudy, but now the wind had calmed, and the moon was shining brightly in the starry heavens. It was a lovely scene. The pure white snow covered the earth and reflected back from her peaceful bosom the soft radiance which shone from above. Silence reigned unbroken, except by the rubbing of the sleigh runners, and the music of the bells.

"I had proceeded a short distance on my homeward way when I became conscious of something unusual taking place within me. At that moment I was thinking of the angelic message, 'on earth peace, good will toward men.' A wonderful feeling of happiness took possession of me. I felt as if I had taken a deep draught of the very elixir of life itself. I wondered if this was the beginning of the millenium, or if I was going to be caught up to meet the saints in the air. The sleigh bells reminded me of the text, 'In that day there shall be on the bells of the horses, Holiness unto the Lord.' I talked aloud in my joy and gladness, and glorified God. I apostrophized *one* beloved friend whom I had not seen for twenty years, but whom I had not forgotten. The exalted feeling lasted

whilst I was driving some four miles. How long it might have lasted I cannot say. I felt that I was redeemed and my sins had been forgiven, also that the Holy Spirit had visited my soul. Suddenly I was struck with an awful feeling of fear as if a spirit had passed by. I asked myself, Is this the forewarning of death? Am I going to die in my cutter, before I reach home, from heart failure? This feeling, something like *angina pectoris sine dolore*, took complete possession of me, and a great horror overcame me, and extinguished every other feeling. I became anxious to reach home before death would take place, as I believed that I was dying, although I felt no pain, and had no dyspnoea, I urged my mare along and shouted at her to quicken her pace. At last I came in sight of home. Everything appeared dim. Vision was almost gone; as I drove in at the gate I felt as if something within me had died. *It was the demon of erotic neurasthenia which had been cast out.* A new life had begun within me. I had been born again. A death unto sin and a new birth unto righteousness had taken place during that memorable drive. Mechanically I got out of the cutter and felt my pulse, to make sure that I was still in the flesh. It beat evenly and regularly. I put away my horse, and, going to bed, told my wife of my strange experience. She said it was conversion, and that she had had a somewhat similar feeling some fourteen years ago. Whether it was a conversion of soul or not, it certainly was to me a conversion from my previous state of mental and physical ill health. I felt from that hour a complete change. I ceased entirely to be troubled with illicit desire, and the anxiety and depression of spirits gave place to a feeling of blessed peace and contentment. The feeling of confusion in the head, and vertigo has also disappeared, and my physical state has become normal, I feel almost as I did when a boy. In short, I am cured of a malady which had afflicted me for about thirty years. The demon has been cast out, and my leprosy cleansed, by the touch of the Divine Healer acting through the instrumentality of the *Vis Medicatrix Spiritus Sancti.*"

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Such is the remarkable personal history told me by my medical friend from which I have deduced the following:

The *Vis Medicatrix Naturæ* must be aided by the *Vis Medicatrix Spiritus Sancti* in the cure of erotic neurasthenia, or failure will be the result. "This kind goeth not out but by prayer and fasting" (abstaining) and repentance.

Scientifically considered, What is this *new birth*? Christ has said to Nicodemus for our information, "Except a man be born of *water* and of the *spirit* he cannot enter the kingdom of God." In the higher psychical centres of the cerebrum, probably in the

cortical grey matter, there may be in the unconverted, unregenerate, or demon-possessed person, certain dry, empty, unused and dormant nerve cells, lying in abeyance like the testes or ovaries of a child, awaiting the influence which is destined to rouse them into activity. Before they can become active these empty nerve cells "dry places" must become filled with "water," which composes eighty-five per cent. of grey nerve tissue. In this way they become capable of receiving and transmitting to the rest of the brain, and to the whole nervous system, the *Divine Vis Nervosa* which is designated, reverently, the Holy Spirit. The whole nature of the individual at once feels the *thrill of exaltation*, which marks this *new creation or new birth*. A sense of joy and gladness, and peace pervades the inner man, giving us a foretaste of the joys of Paradise. We call it "conversion." It is the act of creation which prepares us for the resurrection of the body and the life everlasting. When this new birth or new creation takes place, and our bodies become temples of the Spiritus Sanctus, all mental maladies, all demons, whether erotic neurasthenia, or by whatever name we may call them, must take their departure, and trouble us not again (unless we vex the Divine Vis Medicatrix, and drive Him from us). They are virtually driven out. These newly-born nerve-cells may contain the "germs." *living water*, of the new "body" which is to arise again at the last day. "Sown in corruption, raised in incorruption."

"And there are three that bear witness in earth, the spirit, and the *water*, and the blood: and these three agree in one."—1 John v. 8.

In dealing with young men who consult us for nervous disorders of the sexual organs, the medical profession is under a great responsibility. Not all of these victims have sufficient resolution to abstain firmly and finally. And among these who do conquer the habit, there are those who, from additional causes, such as hard study, anxiety or disappointment, fall into a state of more profound neurasthenia than can be induced by mere losses alone. This neurasthenia class is most common among students. It is also a cause of hysteria in the female sex.

Now I submit that it is wrong to lead these sufferers to expect a cure from the exhibition of drugs, although no doubt the various nerve tonics are valuable adjuncts in many cases. These patients must be treated psychologically, by therapeutic suggestion, by whatever will appeal to their moral nature. They must be made to *believe* they are going to recover. The doctor who dismisses one of these sufferers carelessly with a prescription may afterwards have to regret his own contributory negligence to a case of insanity or suicide. We are "our brother's keeper" in this important matter, and I venture to say that if we did not so habitually

shirk our duty to this class of patients, our asylums would contain fewer inmates. If our school children, in addition to being taught about the evils of alcoholic beverages, were also taught something about the fearful physical and moral evils connected with sexual impurity, much good might be done, and, above all, is it necessary for poor corrupt and fallen humanity that they be brought under the "influence," whose effects in the cure of erotic neurasthenia I have tried to portray? It is only by a death unto sin and a new birth unto righteousness, that man can be placed in a position of absolute security and confidence against the wily and desperate assaults of the powers of darkness and evil.

Neurasthenia consists of disordered sensations of various kinds, always associated with fear. It is one of the results of the human soul being out of harmony with its environment—the less harmony, the more nervousness and fear.

Too much worldly ambition, excessive anxiety, alcoholism, venereal excess, avarice, impurity of thought, in short, the causes of insanity are the causes of neurasthenia. If every one possessed that "peace of God which passeth all understanding" there would be no neurasthenia, and no insanity.

To free our patient from his intense unhappiness and moral fear is to cure his neurasthenia. At the same time his will must be strengthened, and his mind disposed to avoid its causes. Remove the predisposing and the exciting causes, and the effects will cease.

Man is not cured by drugs alone, "but by every 'word' that proceedeth out of the mouth of God."

THE DISTRIBUTION OF ANTHRAX IN ONTARIO.*

BY W. T. CONNELL, M.D., M.R.C.S., ENGLAND.

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In this province we are commencing to realize that anthrax is not so uncommon a disease as has generally been believed. True, it has only been proven to exist in certain districts, but I am confident that were the matter carefully investigated it would be demonstrated that the present localizations would be found to occupy much too limited an area, and that some at least of those cases of rapidly fatal illness in cattle, looked upon as inflammation, dropsy, etc. (terms which to the scientific investigator mean

* Read at the annual meeting of the Association of Executive Officers of Health of Ontario, at London, September, 1899.

nothing) would be found to be due to anthrax infection. I do not wish to be pessimistic in this connection, but the disease once seated is so hard to eradicate, and so rapid in its fatality that its occurrence, even sporadically, is a matter for serious consideration by sanitarians, dairymen and stock raisers. From the data already published by the Provincial Board of Health of Ontario in its annual reports for 1887 and 1891, and 1892, together with that collected by the Board this summer, and by myself, we are compelled to recognize the fact that the disease has gained a foothold in certain districts. When we consider the difficulty of its eradication, owing to the tenacity with which its casual agent clings to life and accommodates itself to almost any reasonably suitable environment, we will at the same time see the necessity for rigorous measures to prevent its further spread in the present recognized centres, and the taking of steps to prevent the seeding of other localities either from the infected areas or by those causes which first seeded the centres now infected.

Before considering the outbreaks with which we are acquainted in Ontario, a few general remarks on the nature of anthrax may not be out of the way. Anthrax attacks nearly all stock animals. Sheep, cattle and horses are most subject to attack, sheep being the most susceptible. Hogs, too, are attacked usually from eating the bodies of other animals dead of the disease. Dogs, cats and rats are fairly immune, yet not entirely so. Mice and guinea-pigs are very susceptible.

Anthrax is one of the oldest of recognized diseases among cattle and is very widespread. In continental Europe, in India and the Argentine it is very common. Compared with its prevalence in these countries, it is uncommon in England, the United States and Canada.

Anthrax is due to a spore-bearing bacillus, first seen by Pollender in 1849 in the blood of sheep, but first described in 1850 by Davaine, who in 1863 claimed it to be the cause of the disease. His claims were fully established by the researches of Koch, who completely worked out the life history of this bacterium.

In the blood and tissues of animals dead of anthrax we can demonstrate this bacillus, usually in vast numbers. Here we find only the rod forms—not the spores—as these are formed only in the presence of oxygen. Thus, opening of the body and skinning the animal determine the formation of numerous spores in the exposed organs and in the hide. The spores are quite resistant to external agencies such as heat and cold, but are readily killed by direct exposure to the sun's rays. Covered, the spores retain for long periods their vegetative power and virulence. In certain soils, with sufficient moisture and summer heat, the spores germinate into rods, which rapidly increase in numbers and again sporulate

and so add vastly to the numbers of anthrax spores in the soil. From infected soil or material the spores are carried by water along the water courses, lodging in the soil of the bank or on overflowed ground, there either to be destroyed, lie latent, or to germinate, according to environment. Consequently, we find the disease most common on lands low lying and along water courses, and possessed of a rich mould with good vegetation, as these are the most favorable conditions for its existence, once infection has occurred.

Anthrax is not a disease contagious from animal to animal. Infection is mainly from the soil, rarely from water, and may be either by local inoculation, which is uncommon, or may take the usual course of infection through the digestive tract by the taking in of food or water containing the spores. As might be expected, the disease will be most common on infected soils when these are close cropped by the animals.

In the common form of intestinal infection the disease is usually a rapidly fatal one—at least eighty per cent. of the animals die. Death in the majority of cases occurs within forty-eight hours, often within four hours after the animal is noted to be ill. In the form due to inoculation we have local carbuncle formation with a rapidly spreading gelatinous, at times hemorrhagic edema soon involving the nearest lymph glands, and then terminating in septicemia. In throat inoculation the local edema at times suffocates before blood infection occurs. Death in nearly all cases occurs within six days.

It would be of no value to recite the symptoms met with, further than to say that late in the disease bloody discharges may issue from the body orifices and in these anthrax bacilli can usually be readily demonstrated. Hence such discharges may add to the infection of the field or stable in which the animal is ill. The post-mortem appearances, while fairly characteristic to a trained eye, are often misleading to one not so skilled, so that in all suspicious cases specimens of the blood and tissues should be examined microscopically and bacteriologically for the bacillus. Its presence or absence must be the criterion upon which to base the positive diagnosis of the disease.

Here in Ontario we have at present recognized four centres where anthrax has been proven to exist, viz., Guelph, Acton, Listowel and Kingston. Accounts of the outbreaks at Guelph and Acton will be found in the reports of the Provincial Board for 1887 and for 1891-2 respectively. In Ontario the disease seems first to have been recognized on the flat lands along the Speed below Guelph, between forty and fifty animals dying there during the summers of 1886 and 1887. The source of infection hinted at in the Board's report was infection from some foreign wool used in the woollen mills at Guelph, the washings from which make their way into the river above the infected flats.

The next outbreak we find noted is at Acton in 1891 and 1892, and evidence was furnished before a committee of the Provincial Board that connected the disease with that locality as far back as thirty-five years. Here we find that the disease occurred along the low lands lying near a stream into which the washings from several tanneries had emptied for over thirty-five years. In one of these tanneries South American hides were used, and we know anthrax is common there, particularly in the Argentine. This summer we have had two outbreaks, one at Listowel and one at Kingston, on two farms some distance apart.

I have had the correspondence *re* the Listowel outbreak kindly placed at my disposal by Dr. Pryce. At Listowel there is evidence of the existence of the disease for the past few years but only this summer was the disease definitely recognized as anthrax and positive proof afforded by a bacteriological examination. The correspondence in this outbreak shows what I found to be the case in the Kingston outbreak, viz., a disagreement between the veterinaries as to the nature of the disease—one tracing the trouble to polluted water directly and the other calling it anthrax. In Kingston it was variously termed "weed poisoning," arsenic poisoning, acute peritonitis and pleuritis, inflammatory dropsy and several other probabilities. At Listowel the cases occurred on lands bordering a creek into which the washings from both a tannery and woollen mill emptied. No note is made as to the source of wool or hides used.

At Kingston we have, this summer, had cases on two farms. On one of these the disease had occurred annually for eleven years at least. On the other the cases which occurred this summer are the first definitely known. On the first farm the disease was noted first in animals pastured on a point of land across the road from the main farm, this point being now Lake Ontario Park. This summer some of the cases occurred on animals pastured there, others in cattle kept on main farm. The dead animals were thrown into a deep crevasse in a limestone ridge which crosses the main farm. This crevasse drains out on several acres of flat pasture land and the water then crosses in a ditch the cultivated field of a neighbor to enter Little Cataraqui Bay. There is no doubt that this pasture land at the foot of the ridge is infected. As to the probable source of the infection it is hard now to say definitely though the seeding I think arose from a tannery which stood on a bay into which empties the Little Cataraqui creek. This tannery has not been operated for twenty-five years however, but was a large one and used foreign hides. The current in this bay sets from the creek toward Lake Ontario point, and the shore on this side is partly marshy, while the opposite bay shore is somewhat bluff and rocky. This latter point would account for the fact that anthrax is not known to exist on the opposite bay shore.

On the second farm I must confess that I am yet at sea, in ascribing a cause for the seeding of the farm. The farm lies about half a mile away from the first and across the Little Cataraqui, but not on its banks. The infected field is low lying, somewhat marshy, but is not flooded from the creek. I can learn of no communication between the farms, but I have not had the time nor opportunity of carefully investigating the matter.

On the first farm, during the last eleven years, forty-two head of cattle have died with a sudden and rapidly fatal illness, and I ascribe the deaths occurring previous to this year to anthrax, as was the case in the five cows and one horse that died this year. Only one of the cows attacked this year recovered. On the other farm, four cows and one horse have died. I had an opportunity of examining one of the cows during the illness and post-mortem, and saw both the horses post-mortem. All presented the typical post-mortem appearance of septicemia by intestinal infection with anthrax, viz., hemorrhages in skin and internal organs—all serous cavities containing bloody serum (one horse showed ten gallons of this in abdomen); omentum and mesentery the seat of a gelatinous edema, in places, however, both were intensely hemorrhagic; the intestinal walls swollen and dotted with hemorrhages punctate, linear, and sheet-like; spleen large, dark, and surface dotted over with hemorrhages; urine bloody; heart and lungs also dotted with hemorrhages and blood dark. Anthrax bacilli were readily demonstrated in all the organs.

No fatal cases have so far been recognized in man. A number of cases have occurred in those handling the dead animals, and in the tanneries, but all have recovered so far as known.

On looking over the factors in common of these outbreaks, we find that we can point as probable source either to woollen mills or, more commonly, tanneries. The tanneries are the only factors in the Acton and Kingston outbreaks. Both are combined in the Listowel outbreak, while woollen mills appear alone in the Guelph cases. The wool and hides used were partially derived from foreign sources, and hence might readily be infected with anthrax spores.

Ravenel, in a paper read by title before the American Public Health Association meeting in Ottawa last September, describes three outbreaks of anthrax occurring in Pennsylvania during 1897, and attacking the operatives in tanneries and the cattle pastured along streams which received the tannery washings. Ravenel further shows that the dry hides as received are the most dangerous, probably from the greater danger of scratching with such, as no scratching would occur with the moistened hides. Ravenel's experiments show that the tanning process does not suffice to kill anthrax spores. Certain German investigators have also pointed

out the dangers of infection of soil from tanneries and of the men engaged in the process.

Now these observations and experiments of Ravenel, together with the observations gathered by the Provincial Board, prove clearly the connection between tanneries using foreign or suspicious hides and seeding with anthrax. What would apply to the tanneries would apply as well to woollen mills using wool from infected countries. We must look, then, to tanneries and woollen mills using such material as the source of infection with anthrax in our province.

In conclusion, I would say that we must take measures, first, to prevent further seeding from these outside sources; second, to root out the disease in the now infected local areas.

For the first we must have (1) some system of control over the importation of hides and wool, particularly from infected countries. Absolute prohibition of import would be advisable, at least till some efficient means of disinfection of these materials is devised.

(2) The washings from tanneries and woollen mills should be collected and treated before being allowed to flow into streams.

In rooting out the disease locally the following measures are advised:

(1) Exclusion of cattle from infected fields and the placing of these fields under cultivation for some years, best with crops requiring considerable stirring of the soil.

(2) The bodies of all animals dead of anthrax should be burned. Burial will not suffice, as it has been shown that any spores formed may be brought to the surface by earthworms and so infect the surface soil.

(3) During the attack the animals should be isolated, say in a rough paddock littered with straw. All litter should be burned.

(4) If the disease becomes endemic the introduction of Pasteur's vaccination system, or a modification of it, might be considered.

In Ontario at present, however, there does not seem to me to be sufficient reason for the introduction of this prophylactic measure, as the disease can be controlled by the steps before advised and vaccination is somewhat costly and not in itself free from danger.

Reports of Societies

TORONTO CLINICAL SOCIETY.

DECEMBER 6TH, 1899.

At the third meeting of the year, the President, Dr. Bingham, occupied the chair, and the following Fellows were present: Drs. Boyd, W. H. B. Aikins, Chambers, Parsons, Bruce, Baines, Greig, Badgerow, McIlwraith, Small, Orr, Hamilton, Thistle, King, Macdonald, Fotheringham, McCollum, Britton, Pepler, Leslie, Lehman, Anderson, Elliott.

Visitors: Drs. J. M. Cotton, Page, Spence and Dean, the three latter of the house staff, Toronto General Hospital. Also Dr. Archibald (Children's).

MALARIA—WITH MICROSCOPICAL SPECIMENS AND PATIENT

DR. W. B. THISTLE presented this patient and spoke of the conditions present when seen by him. The patient, a boy aged eight years, came to Toronto about two years ago from New York. He was first seen by Dr. Thistle at the termination of a severe chill, his temperature then being 104 2-5. On examination an immensely enlarged spleen was found. He was quite well the day before and would be well again in a very short time after the attack. The first examination of the blood failed to show any parasites, although they were looked for. Shortly afterwards, however, they were discovered, and eventually found on every slide examined. Drs. Anderson, Archibald, Goldie and MacKenzie, all found them in samples of blood submitted to them for examination. The parasites were usually to be found at the stage where they almost completely filled the corpuscle and pigment about the periphery. White blood cells showed an extreme quantity of pigment and evidences of phagocytic activity. On one occasion only a somewhat crenated corpuscle was noticed. The patient has had one chill only since entering the hospital, which was quite typical, followed by a temperature of 105, and this succeeded by the sweating stage. Since then no more chills; but the temperature chart showed moderate elevation every alternating day, which was taken to indicate that this parasite was of the tertian variety. There was no disturbance of the bowels or hemorrhage of any kind. The patient was put on treatment of two grains of quinine three times a day, and disappearance of the parasites was reported in three days; also rapid reduction in the size of the spleen. Dr. Thistle

explained the several ways in which this parasite obtained admission to the system.

LARVA MIGRANS.

Dr. GRAHAM CHAMBERS stated he was unable to present the patient, as a cure had taken place, but showed a photo of the lesion, which was situated on the pectoral regions. It first appeared on the back and took the form of a serpiginous line about one-eighth of an inch in diameter. This line increased in length from one-half to three and one-half inches every day. A fly blister was ordered to be applied about an inch beyond the advancing lesion, and the child was completely cured. In this condition the



larva of some insect burrows in the skin, producing the lesion. In Central and South America the disease is caused by some species of the genus *œstrus* or bot-fly and it is supposed that this form of fly deposits the ovum under the skin and this develops into the larva. The larva was not demonstrated in this case. Authorities say it has to be cut out, but in this case the fly blister cured it.

KOCHER'S EXCISION OF ELBOW.

Dr. GEORGE BINGHAM presented this patient, a man aged thirty-four years, upon whom he had performed this operation. About the middle of the year 1896 the man met with a slight accident, at which time the elbow was struck with a small piece of coal. He paid no attention to it at the time, but a little while after

pain developed in the neighborhood of the elbow joint. For two years he continued at his work and during all that time the pain was quite severe. The arm gradually drew up and extension became more and more difficult. In August, 1898, blisters were applied with temporary relief. He was operated on in January of the present year, although at that time he was scarcely a favorable subject for operation on account of the marked anemia and emaciation which had developed. There was no sinus; pain was quite severe. The slightest effort at either flexion or extension produced agony. The operation was that advised by Kocher, and the result has been as absolutely perfect as one gets in these operations, although not quite to the same extent in this case. Dr. Bingham considers this operation superior to the old operation and at some length described the operation as performed. The only danger is that the surgeon may not remove enough bone. The man has good control in that arm although the biceps is not at all developed, yet he can do almost anything with it except when required to use it for pushing movements, then a defect is noticed.

Dr. BRUCE discussed the case and instanced a somewhat similar case of his own and emphasized the importance of excising enough bone in these operations.

AMPUTATION FOR CRUSHING INJURY.

Dr. H. A. BRUCE exhibited a specimen of severe injury through railway accident, in which amputation was considered absolutely essential, and which he had performed on that day. The owner of the leg was a brakeman, and during the backing of a train composed of an engine, tender and eight freight cars upon a "Y" in the town of Teeswater, he fell under the train and was extricated from between the tracks, the train having come to a standstill just as the fire-box was about to pass over him. The injured member was presented to the Fellows and examined minutely. Both bones were severely comminuted at about the junction of the middle and lower third of the leg, there being probably a dozen pieces of small bones in the wound, many of them completely stripped of their periosteum. There was also considerable laceration of the surrounding tissues, but the foot was warm and the patient could move his toes. The skin was lacerated in several places and a large bruise appeared on the posterior aspect of the injured region. A consultation of several surgeons had been held and it was decided that the leg should be amputated.

Drs. BINGHAM and E. E. KING, in discussing the case, considered from the appearance of the injury that the surgeon had performed a wise operation.

PATHOLOGICAL SPECIMEN OF ATHEROMA.

Dr. H. C. PARSONS stated that he showed these specimens in order to bring out one point of interest clinically, and that was the condition of the radial pulse as an indication of the rest of the arterial tree, and, in particular, the coronary arteries. The specimens were from a woman of seventy-six years of age. Her pulse was always soft and it was quite evident that the wall of the radial artery was quite healthy, as also in the others that could be felt. The woman died of gangrene beginning in the great toe of the left foot. The bones were quite gangrenous and the joints completely disorganized. There was complete disorganization of the ankle joint, with other lesions over the malleoli and sacrum. In examining the heart the valves were perfectly normal, but on removing we found the most extreme degree of atheroma in the coronary vessels, as though a button surrounded their orifices. There was a slight degree of myocarditis in the heart muscle. The anterior tibial vessels were perfectly normal even on the side where the gangrene was most marked. The kidneys showed a marked condition of sclerosis. Dr. Parsons quoted Gibson on the subject, who says, that when there is a general arterial sclerosis, that is where you can find it peripherally, usually the coronary artery is involved. Dr. Parsons exhibited a portion of the radial vessel which was perfectly sound, and you could hardly feel it at all when you felt for it through the skin. Showed a portion of the brachial artery, apparently perfectly good. There was also a marked condition of sclerosis in the left lobe of the liver. The patient had also an old inflammatory condition in the gall bladder, which was almost entirely obliterated, and the common duct was dilated.

Adjournment and refreshments.

GEORGE ELLIOTT,
Recording Secretary.

Special Selections.

FEVERS IN CHILDREN—THEIR SIGNIFICANCE, GENERAL DIAGNOSTIC VALUE, AND ANTIPYRETIC TREATMENT.

The *Archives of Pediatrics* for April, 1899, has in it an article by S. S. Adams upon this subject, which is of interest. In speaking of the treatment of fevers he tells us that this may be done by the administration of internal antipyretics, in the use of which great harm often occurs. It is true that by a good dose of antipyrin, acetanilid, or phenacetine, we can reduce the temperature and make the child apparently better. The parents are satisfied, and we may think we have accomplished something; but what is the result? The effect of internal antipyretics is transitory, and consequently we must resort to one of two things: either allow the temperature to return to its former height, or reduce it further by the administration of powerful antipyretics. In this way we not only confuse the diagnosis, but do much more, for such drugs exert a violent and paralyzing effect on the heart.

Dr. Adams says he does not mean to decry the judicious administration of them, but he believes that antipyrin, in the hands of even the most skilful, is a most dangerous drug. He has seen the ill effects of it and the apparent good effects. He has seen a child wildly delirious from croupous pneumonia made rational by a dose of antipyrin, so that it could sit up in bed and chat with its parents; but he has seen the same child relapse into a condition of high temperature within twenty-four hours because the heart had never regained the tonicity which it had had prior to the violent reduction of the temperature by antipyrin. His experience with acetanilid is similar. With phenactine he has had a little more favorable results. Of the internal antipyretics it is one of the safest, but it should be given judiciously, and only in those cases in which we require a rapid reduction of the temperature. Its administration should usually be accompanied by free stimulation. These antipyretics act in two ways, *i.e.*, they lessen heat production and increase heat dissipation; and we must take this into consideration in determining the nature of the antipyretic to be given.

The second method of reducing temperature is by the external application of cold. This method is not only the most beneficial, but is the most stimulating to the various systems. It may be done by means of the cold pack, by the application of the ice-cap to the head, or of the ice coil to the abdomen; but far beyond the beneficial effects of the wet pack and these other methods, the application of the Brand method, pure and simple, is unquestion-

ably the best means of reducing fever, no matter what pathological conditions exist. Dr. Adams says this without any hesitancy. He has no compunction whatever in taking from its bed a child having one of the infectious diseases, with a high temperature and accompanying nervous excitement, and placing it in a bath under proper conditions; for he believes that he is not only reducing the temperature, but is placing the system in far better condition than that prior to the administration of the bath. The Brand method must be carried out in every detail. It is not sufficient to take the little one out of bed and place it in a bath-tub. The bath-tub should be brought to the patient, and the latter should be gently lifted out of bed and placed in the tub, and then the manipulations should be conducted during the bath, and the necessary stimulations given. The result is that the reduction of the temperature is effected with perfect safety.

Dr. Adams has demonstrated to his class in the Georgetown University a case like the following: A child of eight years, who was wildly delirious with typhoid fever, was placed in a tub containing water at a temperature of 90° F., and kept in this bath for fifteen minutes. Enough heat was dissipated from that child to raise thirty gallons of water 4° F. This shows the immense amount of heat abstracted. The child, who was wildly delirious at the time the bath was begun, became conscious and rational; the pulse increased in force. Quite commonly the temperature rises after three or four hours to its former height, when the bath can be repeated.

In connection with the treatment of acute infectious diseases, Dr. Adams is repeatedly asked why we do not see so frequently the complications and sequelæ commonly observed in former years. When he began to practise medicine, as soon as a child was attacked by one of the eruptive diseases, he was isolated, and every crack in the windows of the sick room was sealed. A blanket was placed over every door but one. The child remained in that vitiated atmosphere from the beginning to the end of the disease, with the result that there was a continual inhalation of a vitiated and germ-laden air. Twenty years ago to give a drink in such a case was equivalent to the physician receiving his passport, so far as that household was concerned. In private practice the complications of scarlet fever, and the post-scarlatinal conditions, are now much less frequently seen than they were ten or fifteen years ago. It can be attributed not only to the freer use of water and better ventilation of the sick-room, but also to the practice of placing such fever patients in baths when the temperature requires reduction. Such treatment favors the elimination of the toxic material, and, as a result, convalescence is more rapid and smooth, and the complications and sequelæ are avoided.

The temperature of the bath varies considerably in different cases. With a temperature of 105° we should be very careful how we reduce the temperature of the bath below 95° , the books to the contrary notwithstanding. If we can accomplish what we desire by a warmer bath, and with less inconvenience and discomfort, why should we use a colder one? Some advise a bath at 60° or 55° F., and some even a bath at 50° F. Dr. Adams claims that just as good results follow the use of a bath having a temperature of 95° to 100° , provided a cold cloth is applied meanwhile to the head. The ordinary duration of a bath is ten minutes, and during this time the patient should be subjected to continuous friction. He says he would hesitate a long time before giving his consent to a fever patient receiving a bath at 55° . The city water probably has a temperature of about 50° , so that the effect of such a bath at a normal temperature can be readily tested by jumping out of bed into water just drawn from the faucet. He is confident that if this is tried a verdict will be rendered in accordance with what he has said.—*Ther. Gazette.*

HOT AIR TREATMENT OF DISEASE.

The author (F. G. DOUGLAS KERR) summarizes his results instead of giving details of cases, as follows: 1. Gout: Here it is a most valuable aid in the acute stage, during which it is not customary to employ thermal baths. Even one bath affords considerable relief of pain, which is appreciated as soon as the temperature rises above 300 degrees, lasts during the bath and continues for hours afterward; in fact, the pain is seldom so severe again. In several cases of acute articular gout he has given two baths daily, one to the whole body in the morning and a local one in the evening to the parts affected, with the result that the attack has been reduced to a matter of days instead of weeks, as on former occasions; the results seem, however, to be only temporary unless the treatment is combined with, or followed by a thermal course. One patient declared that a course of thermal baths at Aix or Bath kept him free for eighteen or twenty months, but that he had had three acute attacks in five months when treated only by hot air, though each attack yielded to the treatment within a few days. The interval between the first and second attack was four months, that between the second and third, barely four weeks. In gout, as in other ailments where there is a marked inactivity of the skin, a few hot air baths quickly restore the function, and the patient is found to perspire much more freely with the mineral baths afterward. While drinking the ther-

mal water this increase of perspiration might be expected to lessen the amount of urine, but the reverse is the case, the elimination being increased for some days after each hot-air bath. 2. In rheumatism he has had no chance of trying the effect of this bath in an acute attack, but should have no hesitation in doing so, and should expect good results would follow. In chronic rheumatism, undoubtedly, good results after a time have followed its employment, both in the articular and muscular forms. 3. In chronic phlebitis some of the most satisfactory results have been obtained, even in old-standing cases, where swelling was a source of great inconvenience. A marked diminution in the size of the limb resulted from one bath, and, after a further course, the swelling became permanently less or entirely subsided. 4. In sciatica and other nerve pains the results were conflicting; all persons experienced relief while in the hot air, some cases rapidly improved, while others, starting in a chronic stage, seem to have taken on more acute systems. 5. In rheumatoid arthritis the hot-air baths proved more markedly beneficial than any other treatment. In the early and more acute stages the tender and enlarged joints have rapidly improved and the general condition has been decidedly benefited, most patients gaining weight during the course. In the latter chronic stage, where all inflammation has left the joints, but deformity and fixation remain, little or no benefit resulted from the hot-air treatment alone. In those cases, however, where the joint condition warranted forcible movement under an anesthetic, it was his practice to give a hot-air bath as soon as the effects of the anesthesia passed off, with the result that the swelling and pain were greatly reduced, and subsequent baths greatly hastened recovery of function. 6. In most organic heart cases one would naturally hesitate to use so powerful a form of treatment. In several patients undergoing a Nauheim course, where cold feet and hands were a marked distress, he had excellent results from a few hot-air baths given during the treatment. 7. In general debility and anemia, where there was no contraindication to their employment, good results came from the whole body baths. Even delicate patients, once they get over their first nervousness, bear the baths well; in no single instance did bad results follow their use. 8. In surgical affections of the joints, especially those of stiffening, following the application of splints, the local baths are most valuable, and greatly hasten recovery, the increased circulation also promotes the development of the muscular tissue. To sum up: The hot-air treatment will prove a useful addition to our power of treating certain selected cases. We cannot expect impossibilities from it, and should be careful not to be misled by exaggerated trade advertisements; nothing but discredit can result from its too promiscuous use in unsuitable cases.

—*Jour. Amer. Med. Ass'n.*

LASSAR'S TREATMENT FOR DANDRUFF AND BALDNESS.*

* * * "We owe to Lassar a plan of treatment that promises well. It is a little fussy, so that I have hesitated in advising it. Where I have had it used the results have been encouraging, and testimony to its efficiency has been given by several writers other than its distinguished introducer. Now the majority of you here have dandruff to greater or lesser extent, and I would urge you to make a note of this plan, if you have not already taken it from some medical journal. And I would ask you not to stop there, but to go one better, and try the treatment on your own head; and afterwards report to this society the results of your experience. I see more than one head before me that looks as if it might be better covered with hair. Let me stimulate you to try this plan of treatment by telling you that I have seen it cause the scalp of one physician to take on a reinvigorated growth of hair.

"LASSAR'S TREATMENT.

"Wash the head thoroughly for ten minutes with Packer's tar soap. Wash out the lather with plenty of warm water followed by cold water. Dry the hair and apply :

℞	Hydrarg. bichor	gr. x
	Glycerin	
	Spirit. vini rect. aa.....	℥ ii
	Aq. destil.....	℥ v

M.

Follow this with

℞	Beta-naphthol	gr. xv
	Alcohol. absolut	℥ iv

M.

Rub this in till the hair is dry and then apply

℞	Acid salicylic.....	gr. xxx
	Tinct. benzoin.....	℥ i
	Ol. ped. taur. or	
	Neats foot.....	℥ iii

M.

* Extract from a paper on "Seborrhea," read before the Society of the Alumni of Charity Hospital, New York, by George Thos. Jackson, M.D., Chief of Dermatological Clinic, College of Physicians and Surgeons, New York, etc.

"The whole process is said to take about fifteen minutes, and to be very agreeable.

"To be repeated daily, and persisted in for a period of six weeks or longer."—*Gaillard's Medical Journal, May, 1890.*

"The treatment recommended by Lassar, of Berlin, for alopecia pityrodes and alopecia areata has been attended with some brilliant results. According to Dr. Graetzer's article in the *Therapeutische Monatsschrift*, but few cases resist the treatment, and after a few applications the downy sprouts may be seen.

"Lassar, who by the way is the secretary-general to the International Congress of this year, has done much to awaken the profession from the lethargic state into which it had fallen in regard to the treatment of alopecia; he is reported to have treated a thousand cases in the manner described. The attitude of physicians toward this affection of the scalp has been one of inattention and indifference. When a young man comes under notice whose baldness is conspicuous, his case has not uncommonly been the subject of some trivial remark, ascribing the causation of the trouble to excesses in *Venere et Baccho*, or of the more sarcastic vulgarism bearing upon the affected person's "early piety." These supposed causes may be wide of the mark. The parasitic theory of the causation of hair fall, as advocated by Unna and Sehlen, has its support in those not infrequent cases where the trouble seems to be referable to the use of unclean utensils by the barber. In this class of cases Lassar's treatment will find its indications and successes more frequently than in that other, neurotic, class described by Michelson and Schutz as occurring in young persons who have a "nervous" history or have met with a traumatism affecting the head and brain."—*From the N. Y. Medical Journal.*

IMPORTANT TIPS.

1. The value of small doses of arsenic in paroxysmal coryza of children; Fowler's solution in doses of one or two drops on an empty stomach in vomiting of drunkards; of arsenic in gastralgia, chronic ulcer of the stomach, chronic scaly skin diseases, as a respiratory and circulatory stimulant for the aged, in dysmenorrhea frequently noticed in women with a tendency to asthma or subject to chronic diseases of the skin, in pulmonary phthisis characterized by excessive expectoration and a slow degenerative process, and in albuminuria dependent on imperfect digestion of albuminous substances.

2. The value of a dose of castor-oil in allaying the colicky pains of an infant, although it may not produce a movement of the bowels. The value of the remedy as a galactagogue.

3. The value of potassium bichromate in doses of 1-100th grain every hour or two, in aphonia and hoarseness due to excessive action of the vocal cords or resulting from an acute cold.

4. The value of potassium chlorate, one grain, and tincture of chlorid of iron, ten minims, every two hours in the treatment of ptyalism.

5. The value of hypodermic injections of a solution of camphor in ether as a rapid and powerful heart stimulant.

6. The value of oil of eucalyptus as a gastro-intestinal and genito-urinary antiseptic.

7. The value of small doses of corrosive chlorid of mercury (1-100th grain or less) in marasmus; of small doses (1-60th to 1-40th grain) in chronic diarrhea.

8. The value of sipping water as hot as can be swallowed to stimulate the heart.

9. The value of opium in cardiac asthma, as a vasodilator, given in conjunction with digitalis in senile hearts.

10. The value of three to five per cent. solution of acetic acid as a disinfectant and antiseptic in obstetric practice.—*Jour. Amer. Med. Ass'n.*

TREATMENT OF INTERNAL HEMORRHOIDS.—Dr. J. Boas (*Deutsche Medicinal-Zeitung*, October 30th) says that treatment of this condition, must be based upon the fact that hemorrhoids is a disease of the rectum. The idea that congestion dependent upon the heart, lungs, and liver gives rise to rectal varicosities has been disproved by numerous authors. Local causes are always responsible for the development of hemorrhoids, and treatment of these causes a cure. Among local causes, those which prevent the return circulation through the portal system and vena carva, naturally play the most important rôle. Rectal and perirectal tumors, the pregnant uterus, tumors of the large intestine, disease of the adnexa, stones in the bladder, intestinal ulcerations, stenosis, catarrh, etc., may give rise to hemorrhoids. The most important and benign causes, however, are those which are due to the pressure of hard and stagnated feces upon the rectal ampullæ or sigmoid flexure. Cases also exist in which hemorrhoids develop with normal defecation, with alternating constipation and diarrhea, or, indeed, even with diarrhea alone. In the first instance there is present a certain hypoplasia of the venus plexus, perhaps also an atrophy of the rectal mucous membrane itself. In the latter there exists, as a rule, a more deeply situated catarrh of the large intestine or rectum, under whose influence an increased congestion of the hemorrhoidal plexus might occur. Most frequently, however, there is present an habitual disturbance of defecation, particu-

larly in the lower bowel, which in time causes circumscribed, diverticula-like fecal reservoirs. The most frequent and most satisfactory therapy lies in the treatment of the habitual constipation, in the prevention of large fecal accumulations, and this not by means of laxatives, but rather by persistent dietetic treatment which produces large and soft evacuations and prevents fecal impaction, especially in the rectal ampullæ. Mention must here be made of the general ideas as to the value of the bland, that is, the non-irritating, diet. The "bland diet" is the one which tends most of all to keep intact the integrity of the hemorrhoids, inasmuch as it favors constipation, more so than any other. Single, long-continued, and large hemorrhages justify a relative diminution of alcohol, pepper, mustard, etc. In addition to diet, general hygienic measures must be observed, exercise, gymnastics, riding, billiards, lawn-tennis, football, etc. Herewith is included rectal toilet, cleansing of the anal portion with astringent solutions, preferably tannin or alum. Rectal enemata, with gradually elevated douche, are very serviceable. These simple measures suffice in the first stage of the affection and in the absence of complications; indeed, in a large proportion of cases the varicosities disappear altogether. Even the rectal catarrh, which the patients falsely call "catarrhal hemorrhoids," gradually disappears, once the lower intestinal tract has been cleared of the fecal accumulations, or the irritation consequent upon their decomposition. Hemorrhoids ought to be treated in their very incipiency. In the later stages, the regulation of the constipation or the cure of a constipative intestinal catarrh is more difficult, and requires the aid of laxatives and irrigations. Among the former, only such are indicated as, after habitual use, do no harm to the gastro-intestinal tract, produce a mild and satisfactory effect, and do not wear off too quickly. This list includes rhubarb in its various compositions, sulphur, compound licorice powder, magnesia usta, and citrate of magnesia. The dose should be as small as possible. The treatment of hemorrhoids with mineral water is very popular; the results here depend entirely upon the laxative properties of the given water as well as the local effect of the baths upon the hemorrhoidal nodules. This method seldom gives permanent results. Under the same category might be included the grape cures, which also produce a regulation of the bowel function, and thus might favorably influence the condition; once, however, the treatment is stopped, the condition recurs in the majority of cases. The success of the internal therapy of hemorrhoids depends upon the treatment of the etiological factors. If this fails, then all other intervention will have but a transitory and symptomatic effect. This brings us to the local treatment by pessaries, suppositories, and ointments. The former are of temporary value and may produce a certain amount of re-

laxation of the sphincter by compression of the varicosities. The suppositories and ointments may be of service in excoriations of the varicosities and in slight hemorrhages. The following suppositories and ointments are very much in use :

℞ Chrysarobin.....	0.08
Iodoform.....	0.02
Extr. bellad.....	0.02
Butyr. cacao	2.
M. S. Introduce one two or three times a day.	
℞ Chrysarobin.....	0.8
Iodoform.....	0.3
Extr. bellad.....	0.6
Vaselin	15.
M. S. Apply twice daily.	
℞ Potassii iodidi.....	2.
Iodi puri	0.2
Glycerin.....	35.
M. S. Apply.	

Among complications, the treatment of hemorrhage, constriction, and prolapse are the most important. Small hemorrhages, as they occur in all well-developed cases, require no special treatment. It is quite different, however, when the hemorrhages recur, when they appear at every movement of the bowels and even independently of it, or when the hemorrhages occur infrequently, but are of such a degree as to give rise to a very marked anemia. In the first instance, the object of treatment is to prevent venous stasis by a regulated diet and mild laxatives. If, despite normal defecation, habitual hemorrhages occur, then the fluid extr. hamamel. virg. is indicated.

℞ Extr. fluid. hamamel. virgin	℥ss
S. ℥ i. t.i.d. in a glass of water.	

Suppositories might also be used. In acute and alarming hemorrhages the best treatment is tamponing of the rectum with ferripyrrin, chloride of iron, or iodoform gauze. Care must be taken that tampon reaches the bleeding point, otherwise the hemorrhage will continue. At the same time a full dose of opium is given in order to quiet intestinal peristalsis. In three days the tampons may be removed, and a dose of castor oil given. In constriction of the hemorrhoids, protection and avoidance of forcible reduction are indicated. If possible, a suppository of cocaine and opium is to be introduced, in order to immobilize the lower bowel. Then,

after a thorough incision of the entire anal portion and the rectum itself, reduction of the constricted portion is carefully undertaken in the side position, if needs be with the aid of chloroform, ether, or Schleich anesthesia. Leeches might be applied in the region of the varicosities; after sufficient blood has been withdrawn, reduction is usually easy. If gangrene supervenes reduction is, of course, contraindicated, and treatment with antiseptic powders is in order. In prolapse, Esmarch's "rectal carrier" might be of service.—*Medical Record*.

MALE HYSTERIA.—Ch. Vallon and J. Rogues de Fursac. (*Arch. de Neurol.*, June, 1899), give in detail particulars of a case of male hysteria occurring in a patient free of hereditary antecedents, but presenting the "stigmata" of this disease. The case is that of a man, aged fifty-three, of good physique, and robust. His father was given up to habits of intemperance, and died at the age of seventy-nine of a disease of the bladder; while his mother after enjoying good health, died at the age of seventy-five of an attack of apoplexy. The grand-parents on both sides had been long-lived (over seventy-five years). An elder brother had died young, aged four, and a young sister had died of paralysis at the age of fourteen. Another sister (living) suffers from migraine. The patient has had three male children, the eldest of whom died at seventeen (cause unknown), and the second at four and a half years, of meningitis. During childhood he had been free of convulsions or either serious illness. He attended school, and was an average scholar. He then joined the army, and rose to be an officer in Algiers, where he suffered from cholera and typhus. He married afterwards, and spent in extravagance his wife's large fortune, and was imprisoned for debt. In 1877 he contracted a syphilitic chancre (diagnosed as such by Ricord); secondary eruptions and later pustules developed on the face; was improved by vigorous antisiphilitic treatment. In 1882 a fresh eruption appeared on the face, and after its cure he joined a regiment abroad at Tonquin; but, owing to irregularities and failure in discipline, was allowed to leave the army. He became a tobacco merchant at Saigon, and made 15,000 francs, returned home and obtained a sum from the Minister of War, and settled to the life of an auctioneer. In 1885, while announcing articles for sale in auction he suddenly lost his speech, and could only emit a raucous and inarticulate scream. The previous day he had been in good health, with no symptoms of threatening illness. This mutism lasted fifty-five days, and then ceased abruptly, when he began to talk correctly and properly. During his attack of mutism, he understood clearly all that was said, and could write and read perfectly, though unable to utter a

word. He now joined his wife, from whom he had been long separated, and a boy was born to them at the close of 1888. Two years later he secretly withdrew a sum of 12,000 francs, and lost it on the race-course. In February, 1890, after fifteen years of a life of debauchery and sexual excesses, he was struck with blindness. The previous day he had felt excessively fatigued from sexual excess, but was free from any special ocular trouble. On now consulting two physicians he was taken for a malingerer. The blindness persisted for thirty-eight days; it was complete, and he could not distinguish day and night; it then disappeared suddenly, and he was now able to see clearly with both eyes. Eight days later he began to be a little deaf in the left ear, and this one-sided deafness still persists. He continued on his travels (Cochin-China, and back) and did various things to get employment. In December, 1894, while about to arrive at Monte Carlo, he was suddenly taken with an attack of mutism, exactly as in 1885. (For some days previous to this he had indulged in sexual excesses, and had vague fears and presentiments of threatening loss of speech and sight.) He also feared the effects of the winter's cold. The attack of mutism lasted two months, and then ceased as abruptly as did the first attack. It was not accompanied by deafness, nor by any paralysis, nor word-blindness. As soon as he was cured he returned to Paris, procured a large sum of money by counterfeiting his wife's signature, was arrested and tried, and let off with a light punishment. In 1895 he obtained a situation as cashier, embezzled a large sum of money, and was tried and condemned to suffer imprisonment for one year, execution being, according to the Beranger law postponed for a time. During this interval he was at first indifferent; he then drew his quarterly monthly allowance twice, and proceeded to gamble and lose the same on the race-course. Later he became nervous, excitable, and lost self-control, and asked to be imprisoned to prevent his killing his wife and committing suicide or murder. He was transferred to an asylum suffering now from acute melancholia with suicidal tendencies and sitiophobia. Here, after a while, he had a third attack of mutism, preceded by slight stammering. Fourteen weeks after there was a sudden recovery of speech, followed by an abundant epistaxis. The knee-jerks were exaggerated, there was rachialgesia, with zones and patches of analgesia, and of hyperalgesia irregularly distributed about the arms and shoulder. The visual field was notably contracted on both sides. The left ear was deaf, and there was an anesthesia of the corresponding external ear and its meatus. Taste and smell were normal. Intelligence and memory were normal, except for a complete blank as regards all events during the first two months of his detention at the asylum. He now continued to be industrious and useful, helped in office work, and after being in the asylum six

months was discharged cured of his attack of melancholia, and in his right mind, though still presenting stigmata of hysteria, and with a complete lacuna in his mind of events during the early two months of his sojourn in the asylum.

EXERCISE OF INFANTS.—(Slay, J. C., *Dietetic and Hygienic Gazette*, 1899. Vol. xv., No. 2.) A proper attention to exercise is not less important during the early period of infancy, than in after life. Upon it depends, in no trifling degree, the health of the little being, as well as the proper development and freedom from deformity of every part of its body. An infant is, however, from the very state of its organization, unfitted to sustain any very active exercise. Its bones and muscles are as yet incapable of bearing the weight of the body, and, of course, all the exercise it can enjoy is that which is communicated to it by its nurse or attendant.

The earliest species of exercise to which children are submitted, is that of rocking in a cradle. Without objecting to the motion thus communicated, when it is gentle and not too long continued, or too frequently repeated, we must be permitted to say that under opposite circumstances it is more or less injurious. It is especially so when resorted to immediately after the child is taken from the breast, or for the purpose of composing it to sleep when restless or fretful.

The best exercise for a young infant is obtained by allowing it to amuse itself upon the nurse's lap, and by carrying it frequently about in the arms. When sufficiently old to be attracted by surrounding objects, taking it frequently into the open air, especially in the country, during the milder seasons of the year, has a highly beneficial influence.

In carrying an infant, some important precautions are necessary. The backbone is, at this period, almost composed of a soft yielding substance, that is incapable of supporting the weight of the head and other parts which rest upon it, in the erect position of the body. To prevent deformity, therefore, a young child should not be held in a sitting posture upon the arm of the nurse; it ought always to be carried in the arms in a half lying position, so that the head, and every part which bears upon the spine, receive a proper support. In delicate infants, a permanent bending of the body to one or other side has frequently been caused by their being carried for too long a time in the nurse's arms without changing the position in which they are held. To obviate this, the child should be carried, by turns, on both arms.

It is very common to toss a young child up and down, in the arms, held at full length from the body. The action thus communicated

is of too violent a kind to be borne with impunity in the early periods of infancy, to say nothing of the serious accidents which may result from it, even when the utmost care is observed. As soon as a child is able to sit alone, placing it upon a carpet or soft cushion spread upon the floor, and allowing it to amuse itself with its toys, is far preferable to constantly nursing it in the arms, or allowing it to be rocked for hours in a cradle.

It is only towards the end of the ninth month, and frequently even later, that it is proper to teach a child the use of its feet. As a general rule, no particular attempt should be made to induce it to walk at an early period; the bones not having acquired a sufficient degree of solidity to support the body, every effort to place the child upon its feet is calculated to produce considerable and permanent deformity; and, so far from promoting, to retard the growth of the body. In teaching a child to walk, it should be left entirely to its own efforts, all artificial support is injurious; as generally applied, this support has a tendency to produce an unnatural elevation of the shoulders, while the infant, depending upon it almost alone for the support of its body, is accustomed to bend too much forward, or to one side. By this may be laid the foundation of a permanent deformity, or at least of an ungraceful gait, which it is often impossible in after life to correct.

All that need be done to induce a child to walk at the proper period is to place it upon a carpeted floor, and to present to it at a little distance some attractive object; the desire of obtaining it will overcome the fear of falling, which is experienced in first attempting to walk alone; and in a very short period the tottering and uncertain step which is then exhibited, will give way to a firm, confident, and upright carriage. Even after it has learned to walk, a child should not be urged to use its feet for too long a period at a time. The powerful and novel action into which the several muscles are thrown, produces very quickly fatigue, while it is to be recollected that the bones are still easily bent, when they are called upon to sustain the weight of the body, and the force of the muscles, for any length of time.—*Arch. Ped.*

COLIC.—Philip J Barbour treats of colic in infancy. It is a paroxysmal pain occurring in the intestines, and may be due to a number of causes, such as appendicitis, intussusception, enterocolitis, or to lead or arsenic poisoning, but the most frequent cause is a disordered digestion arising from improper food or deranged conditions of the alimentary tract. Infants are more liable to have it, from the fact that their food is more difficult of perfect absorption and hence is more liable to undergo fermentation; and the relative weakness of the muscular fibres of the intestine and the abdominal

wall prevents the rapid expulsion of the gas, the accumulation of which gives rise to the pain. Colic may, however, occur without flatulence, and can be caused by whatever will produce a sudden spasm of the circular muscular fibres in the intestinal wall. Colic comes on most frequently at night. Its recognition is usually easy, as the loud, sharp cry indicates pain; and, as the pain is paroxysmal, the cry is not continuous. The baby also draws its cold feet and hands over the abdomen, which is usually distended and tympanitic. It may be difficult at times to distinguish between the cry of hunger and the cry of colicky pain, for these babies will often seize the nipple with avidity, and the warmth of the milk frequently relaxes the spasm for a little while, but with colic the pain soon returns and is probably more severe. The cry of hunger is less loud and is maintained longer, while the head is rolled from side to side, the tongue drawn back and flattened in the mouth, and efforts may be made to suck the hand or thumb or nightgown. The cry of temper often simulates colic, but there is not the abdominal distension nor the cold hands and feet. The possibility of appendicitis, intussusception, volvulus, incarcerated hernia, hepatic, and renal colic should always be kept in mind. There is a form of enteralgia due to malaria which is difficult of recognition, and could be suspected only when there is a marked periodicity without the tympany and cold extremities of ordinary colic. The fact that colic frequently comes on at the same time every night will make the differential diagnosis more difficult. Children fed on cornbread that is not thoroughly cooked, or fed on indigestible food—as cold lunches with pickles, etc.—often suffer from colicky pains in the hypogastric region. Castor oil, in small doses after meals, gives relief. Spinal caries may produce abdominal pain simulating colic, but a careful diagnostician will recognize the condition. In the treatment of colic, give warm enemata to remove the gas. It may consist of soap-suds and water, or have a few drops of turpentine or a half-teaspoonful of glycerine. Hot applications should be made to abdomen, and feet and hands warmed. By the mouth, the author prefers to give small amounts of hot whiskey and water with a drop of essence of peppermint and a little sodium bicarbonate. Some form of cathartic should be administered after relief of the urgent symptoms. The aromatic antiseptics diluted by hot water often relieve the paroxysm and prevent the formation of gas. The prevention of colic consists in proper feeding. The most frequent cause is the presence of too much proteid in the milk, as evidenced by the undigested casein in the stools or the cheesy odor of the latter. Breast-fed children often have colic from an increase in the proteid percentage of the mother's milk, due to excitement, anger, menstruation, etc. Excess of sugar undergoing lactic or acetic acid fermentation will frequently cause colicky pain. This rarely occurs

in breast-fed children. Milk which has been frozen is especially liable to cause colic. By reason of faulty feeding or the drinking of beer, mucus is formed in large quantities and passes into the bowel as a good culture medium for bacteria, which multiply very rapidly and produce fermentation of the milk or food, with increase of gas and colic. In such cases alkalies are useful. Some form of anodyne may be necessary to relieve the pain of the colicky attacks until such changes have been consummated in the milk as will prevent its disagreeing with the child. Of the preparations of opium, codeine is decidedly the best, as it interferes less with normal digestion and peristalsis. It should be used only as a last resource, however.—*Amer. Jour. Obstetrics.*

HEADACHES AND THEIR TREATMENT.—Dr. T. Lauder Brunton (*British Medical Journal*, November 4th), says: The first method of treatment of headache is, of course, to try to supply the brain with healthy blood; to clear away any toxins that may be present in it; and one method of doing this I have just mentioned—namely, the administration of a blue pill and a black draught. But, more than this, we may try to give something which may have the power of counteracting these toxins or of producing elimination from the liver, and I have found by personal experience that the easy way of getting rid of the toxins or of counteracting their effect, I do not know which, is to keep up the action of salicylic acid or salicylate of sodium. So that in persons who are liable to headaches I generally prescribe salicylate of sodium gr. xv., xx., or xxx. at night, with gr. x., xx., xxx. of bromide of potassium. This mixture acts better than either salicylate of sodium or bromide of potassium alone, and it will usually prevent their recurrence in the morning. The salicylate of sodium is apt to produce a certain feeling of depression or weakness, and in order to counteract these I generally give it along with half a drachm of aromatic spirits of ammonia. It may be advisable in some patients, if you are giving the salicylate of sodium regularly, to give also a little iron to counteract the effect of the salicylate in producing anemia. For the relief of headache occurring through inflammation of the periosteum from gouty, rheumatic, or syphilitic irritation, it is evident that one remedy is very useful—namely, iodide of potassium, which should be begun in small doses and gradually increased up to gr. x., xx., or xxx., three times a day. When we think that the pain is not of a pure nature, not due simply to dilatation of the nervous fibrils in the fibrous tissue of the periosteum, but is associated also with some change in the vessels of a nature allied to them, which we find in sick headache, the iodides may be combined with the bromide and salicylate, and

in all those cases it is advisable to give some aromatic spirits of ammonia along with it in order to prevent any depression effects of the drug. Whenever you get a case of intense headache which your drugs fail to relieve, always look out for glaucoma. Even in ordinary headache you will be very apt to find the affected eye is rather tight, that the intra-ocular tension is higher than usual, but in glaucoma it is very much increased, and this will be permanent and not temporary as in ordinary sick headache. In cases in which this increased tension exists you must either treat the glaucoma yourself, or have the patient operated upon by some specialist, so as to prevent the loss of the eye as well as to relieve the headache, which is very intense, and which exists along with the disease.—*Medical Record*.

THE RELATIVE VALUE OF WHITE AND DARK MEAT IN SICK DIET.—(Offer and Rosenquist, *Ber. Klin. Woch.*, 1899, Nos. 43 and 44) record investigations on the basis of which they consider that there is no fundamental reason to draw a distinction between the use of white and dark meat in gout and kidney diseases. Senator (*Ibid.*, No. 45), while acknowledging the value of their researches as regards the amount of nitrogenous extractive matter contained in various white and dark meats, and admitting that when alluding to the deleterious effects of dark meats and game in gout and kidney disease most writers perhaps refer rather to the nitrogenous than to the non-nitrogenous extractive matter they contain, points out that the authors quoted by Offer and Rosenquist in support of their erroneous view speak of extractive matter generally, and that in one of the passages quoted he himself, after mentioning certain nitrogenous, expressly mentions "other extractive matters." Offer and Rosenquist have neglected to estimate the non-nitrogenous extractive matters, which, as regards beef and veal, are the most important forms of dark and white meat, J. König has shown to be 0.46 : 0.07 per cent. Moreover, no account has been taken of the fact that the meat is generally consumed cooked, and not in the raw state in which it was examined in these experiments, and cooking alters its composition and the amount of extractives it contains. König gives this amount as follows: Beef, roast, 0.72; boiled, 0.40 per cent., compared with only 0.03 per cent. in roast veal; or estimated to water, free residue roast beef 1.59, and roast veal 0.09 per cent. The received opinion that the paler sorts of meat, and especially the flesh of younger animals, is poorer in extractive matter, a view quite lately adopted by Rubner and Minkowski, is therefore not disproved. Thirdly, the difference between various meats depends on more than the amount of nitrogenous extractive matter they contain. Some are more

digestible than others, and there is a fundamental difference in the total amount of nitrogen, which is considerably more in beef, game, and ham than in veal, mutton, and most kinds of fish. The uric acid and other elements of albuminous metabolism in the urine are increased by increase of the quantity of nitrogen in the meat ingested. Apart from any equality in the nitrogenous extractive matter contained in different kinds of meat, there are fundamental differences between them which we know, and probably others, and there is no reason to abandon the opinion founded on continued practical experience, that to gouty and nephritic patients, white meats are the less injurious.—*Brit. Med. Jour.*

SKIN-GRAFTING WITH DRIED EPIDERMIS SCALES.—Dr. J. L. Wiggins (*Chicago Railway Surgeon*, Aug. 8th) reports some results obtained by covering granulating surfaces with epidermic cells from the sole of the foot, a method of treatment described by Dr. J. T. Hodgen in the *St. Louis Med. and Surg. Jour.* in 1871. Dr. Hodgen sprinkled the unprepared epidermic cells over the granulating surface and claimed as good effects as from the application of the ordinary skin grafts recommended by Reverdin. Dr. Wiggins sterilizes the foot by thorough scrubbing (which removes as far as possible the outer layer of epidermis) and by subsequent bathing in strong bichloride solution, after which it is covered with moist boric acid dressing and rubber tissue. After twelve hours the dressing is removed and the surface thoroughly scraped with a dull knife. The cell mass thus obtained is transferred to a mortar placed in a water bath at a temperature of from 110 to 115 and the mass is stirred until thoroughly desiccated. The object is two-fold: first, to permit of trituration so as to separate the particles still further; and, secondly, to divest them of all moisture so as to promote adhesion to the moist surface of the ulcer. Dr. Wiggins has used two methods of applying the cells to the granulating surface, and has found each under varying conditions equally satisfactory where the surface was large. One was to cover the entire surface with ordinary rubber tissue, perforated with holes at intervals of $\frac{1}{8}$ in., the granulations projecting through the holes. The second method consists in marking off a space from $\frac{1}{4}$ to $\frac{1}{2}$ in. in width around the entire circumference, and sowing this field with desiccated epithelial cells; over these are laid strips of rubber tissue, extending half a line beyond the margin of implantation. The centre of ulceration is then filled with strips of gauze, and dressings are applied in the usual manner; this process is repeated until the entire surface is covered. When the surface does not exceed in extent $1\frac{1}{2}$ to 2 in., the grafting may be accomplished without resorting to either of these methods. Dr. Wiggins has seen many cases in which an ulcer, measuring 1 in. by $1\frac{1}{2}$ in.,

was completely covered in twenty-four hours by a thin white film of organized tissue, which in ten days made it impossible to distinguish between the old and the new structure.—*Lancet*.

THE BACILLUS TYPHOSUS IN THE GALL-BLADDER EIGHTEEN YEARS AFTER AN ATTACK OF TYPHOID FEVER.—G. L. Hunner, in the *Johns Hopkins Hospital Bulletin*, August-September, 1899, describes the case of a German woman, aged 54, who was admitted to the Johns Hopkins Hospital in February of this year, with a large abdominal tumor. She gave a history of an attack of "remittent fever," from which she had suffered eighteen years before. She was in bed two weeks with the fever, and at that time there was typhoid fever in the neighborhood. Three and a half years before coming under observation there was a beginning enlargement of the abdomen. This began suddenly as a severe pain in the right side, radiating down into the right inguinal region. The pain was intermittent, lasting about half an hour, and left the patient with abdominal tenderness and a good deal of nausea. She had no vomiting and no jaundice, but suffered from occasional attacks of diarrhea. Eighteen months before admission to the hospital the attacks increased in severity, and of late she had been confined to her bed and had lost weight and strength. Physical examination revealed the presence of a large cyst starting from the left ovarian region. The right ovary was represented by a hard movable mass. An operation was performed, the ovarian cyst removed, numerous adhesions separated, and an adherent appendix was amputated. Convalescence was uninterrupted until the fourteenth day, when there was nausea and vomiting, and later, pain in the epigastrium. The pulse and temperature increased, the leucocyte count was twenty-nine thousand, and there was a visible tumor, tender to touch and dull on percussion, in the right hypochondrium. An incision revealed a distended gall-bladder, which was incised and permanently drained. The patient made an uninterrupted recovery, the bile passing through the fistula for about a month, after which it closed spontaneously. Smear cultures made from the exudate of the peritoneum were found to be sterile. Cultures made from the fluid found within the gall-bladder revealed the presence of a number of bacilli resembling in all cultured characteristics the bacillus typhosus. The patient's blood gave a positive Widal reaction.—*Med.*

SUTURE OF THE HEART FOR PENETRATING WOUNDS.—Minni (*Giorn. Internazion. del Scienze Med.*, January 15th, 1899) has found, after a careful study of statistics, that only 19 per cent. of the cases of penetrating wounds of the heart are immediately fatal. Operation in these cases gives the best possible hope of

saving life, provided no time be lost in undertaking it. He mentions eight cases treated by suture, and gives the details concerning one of them which occurred in his own practice. In Farina's case, the wound, which was situated at the apex of the right ventricle, was 7 mm. ($\frac{1}{4}$ inch) long. It was immediately sutured. The patient died on the sixth day, from pneumonia. In Rehn's case the situation of the wound was similar; it was half an inch long. The operation of suture was performed 24 hours after the infliction of the wound. The pericardium and pleura were drained. The patient recovered. In Cappelen's case the wound was at the apex of the left ventricle, $\frac{3}{4}$ inch in length. The left coronary artery was wounded. Primary union took place, but the patient died of pericarditis on the second day. In Parozzani's first case the situation and size of the wound was the same as in Cappelen's. After 12 hours the wound was sutured, primary union took place, and the patient recovered. In Parozzani's second case the wound was in the same situation, but only half an inch long. The operation was performed within a few hours. There was primary union, but the patient died of collapse on the second day. In the author's case the wound was 1 inch long, involving the anterior wall of the left ventricle, a little below the transverse sulcus, and a little to the outer side of the longitudinal sulcus. The patient was operated upon almost immediately, but he died before the suture was completed. In Giordano's case the wound involved the edge of the left ventricle, and was three-quarters of an inch in length. After two hours had elapsed the heart and pericardium were sutured, and the pleura was drained. Death occurred on the twentieth day from septic pleurisy. In Parlavacchio's case the wound was V-shaped; each arm of the V measured $1\frac{1}{4}$ inch. The heart was sutured, and complete recovery took place.—*Brit. Med. Jour.*

STERILIZATION OF CATHETERS AND BOUGIES.—Nicoll (*Annals of Surgery*, June, 1899), publishes the results of an extensive investigation on the best means of sterilizing the various forms of bougie and catheter now in use. The metal bougie and the soft red rubber composition, or Jacques's catheter, may be readily and certainly rendered sterile for an indefinite number of times either by boiling, or by washing and immersion in sufficiently powerful antiseptic solutions, and this without suffering change. With regard to the sterilization of all forms of gum-elastic or varnished catheter, the author points out that while there are various methods which are not, when repeated, destructive of the instrument, and which, with regard to asepsis, offer a reasonable degree of security, there is no method which is entirely reliable. Formol vapor, which has lately been extolled as a means of sterilizing catheters and bougies, is here asserted to be

an unreliable agent for this purpose. The author has been led by the results of these observations to formulate certain rules for application in practice. He would avoid, as far as possible, the employment of catheters, and when a hollow instrument must be employed, would use a red rubber or Jacques's catheter in preference to a gum-elastic or metal one. When compelled by the nature of the case to fall back on gum-elastic catheters, he would, if the urine be very septic, destroy the instruments he has employed. If the urine be not very purulent or offensive, he would subject the catheter after use to external washing with soap and water, afterwards dip it in some antiseptic solution, and finally steam the interior of the instrument. Such treatment, however, is very destructive, and only those catheters that survive can be retained for further use.—*Brit. Med. Jour.*

A CASE OF LARGE AXILLARY ABSCESS.—Case from Dr. H., of Jerry Dolan, Irish, thirty-two, single; first seen June 4th, 1896, at one of the principal New York hospitals. An incision of about one inch was made at the lowest point of the abscess on the edge of the pectoralis major muscle. The cavity having been thoroughly cleaned out, thirty drops of 25 per cent. pyrozone were injected, and it was packed with bichloride gauze, 1 in 5000. After twenty-four hours this was removed, the wall of the cavity curetted and thoroughly cleansed and the bichloride packing renewed for another twenty-four hours. Then it was removed, and after cleansing, the cavity was packed with iodoform-bovine gauze. This was repeated twice a day to June 10th, after which pure bovine only was used twice a day until the 26th, when the patient was discharged, the cavity having completely filled and healed, with a soft pink cicatrix. These cases of abscess will be noted by surgeons as remarkable (like others under the blood treatment) for the most rapid healing ever known. "The treatment of abscess has always been an exceedingly unsatisfactory one to the surgeon as well as to the patient, both from the length of time these can run, the pain attending the usual methods of treatment, with the subsequent redressings, and that in the large majority of cases a prolonged period of disability follows the primary operation."—Edwin M. Hasbrouch, M.D., from *Maryland Medical Journal*, May 20th, 1899.

TREATMENT OF TAPEWORM BY MORPHINE INJECTION INTO THE PARASITE.—J. W. Hime, M.D. (*Medicine*, Sept., p. 732).—Vermicides often fail, the worm drops down into the lower part of the intestine and reattaches itself. Sometimes copious injections will bring away the head, but more frequently they only break the worm. In a case in which fifteen feet of the worm had come away

and ten feet had not, the writer tied a string tightly round the worm at a distance of three inches from the patient, and injected above it, into the worm, morphine, $\frac{1}{2}$ gr. The protruding part was severed below the string with scissors, and the remainder passed above the sphincters and left there for about ten minutes. A large injection of water was then given, and the upper part of the worm was passed motionless and apparently dead. Most varieties of tapeworm have a pair of longitudinal vessels passing from one extremity to another through all the segments, so that poisons injected into the worm reach every part. The writer recommends the following treatment: About 9 a.m. the patient is given a dose of infusion of pomegranate, or better, tannate of pelletierine, with one or two drops of croton oil. In two or three hours the whole or part of the worm is passed. If only part the injection of morphine should be made as described.—*Med. Rev.*

FUNCTIONAL NEUROSES AND THEIR RELATION TO THE DISEASES PECULIAR TO WOMEN.—Dr. H. J. Boldt, in *New York Medical Journal*, says: "To overcome the anemia so often associated in this class of cases, I have found the solution of bromide of gold and arsenic to be among the most serviceable drugs at our disposal; beginning with five-drop doses in a glass of water after meals and increasing one drop daily until from fifteen to twenty drops are taken. The red blood corpuscles and the percentage of hemoglobin are rapidly increased with the use of this drug. Occasionally, however, we do find a patient with whom it disagrees, when we must resort to other remedies. The gold solution has also a decided effect on the inflammatory condition of ovaries. This was pointed out by an author in a European journal ten or twelve years ago and has been employed during that period by me. Since the introduction of Dr. Barclay's solution, which is a combination with arsenic, it has been used with better effect than the chloride of gold and sodium in pill form. *Barclay gave the name arsenauro to his solution for the sake of brevity.*"

THE METHOD OF REACHING THE HEART SURGICALLY.—Giordano (*Rif. Med.*) passes in review the various methods proposed for getting at the heart, and concludes that the method selected should be: (1) Speedy, as a few moments may mean the difference between life and death; (2) the opening should be large enough to admit of free manipulation, and to give a good view of the injury; (3) should necessitate as little extra assistance as possible. The anterior and lateral surfaces of the ventricles and sinuses of the heart are accessible from the anterior wall of the thorax. For suture of the ventricles, resection of a single rib (the fourth or fifth) is sufficient, and there is no need to resect any part of the sternum.

For the vesicles, it is necessary to resect the third and fourth rib, and make a quadrangular opening reflecting the ribs at their chondro-sternal junction. The posterior surface of the ventricle is accessible from the postero-lateral surface of the thorax.—*Brit. Med. Jour.*

MALT SOUP FOR CHILDREN.—The Breslau University Children's Clinic has long been investigating to discover a food adapted to cases with gastro-intestinal disease, and reports in the *Deutsche Medicinische Wochenschrift*, of September 28th, the extremely satisfactory results obtained with a food made of fifty grammes of wheat flour stirred into one-third of a litre of water at 50° C., and adding to this 10 cubic centimetres of an eleven per cent. solution of potassium carbonate. The malt extract mixture is then stirred into the mixture of flour and milk, and the whole is cooked together. A table of the gain in weight in twenty-eight cases is appended (all children, less than six months old), which averages very high under the circumstances; forty-three grammes a day in one case fed on the malt soup thirty-one days. None of the children had severe rachitis afterward.—*Medical Record.*

MANSLAUGHTER BY "PECULIAR PEOPLE."—An English upper court has sustained the conviction of a man who allowed his child to die without medical attendance. The accused was one of the "peculiar people" who do not believe in medicine, but who anoint and pray for the sick. The defendant sought to justify his neglect of his child by quotations from the Bible, but he was found guilty under the Act of Parliament which makes it a criminal offence for any parent wilfully to neglect to provide adequate food, clothing, medical aid, or lodging for his child in his custody who is under the age of fourteen years, whereby the health of the child is or may be injured. The court held that it was no defence that the father believed that the Bible forbade him to provide medical assistance for his sick child.—*Medical Record.*

SUTURE OF NERVES.—*Inaugural Dissert.*, Greifswald, 1899, reports in full twenty cases of suture of nerves in Helferich's surgical practice. In some cases the suture was applied on the day of the injury, in others not till weeks later, or even, in one case, as long as a year from the infliction of the wound; five cases could not be traced. Out of the remaining fifteen, no fewer than eleven were reckoned as successful, the influence of the nerve being more or less completely restored. Complete cure in this sense was noted in five, incomplete in six. Thus, though nerve suture is a justifiable and necessary operation, it does not always prove successful even in the best hands.—*Brit. Med.*

MONTHLY REPORT.

Issued by the Provincial Board of Health of Ontario for October, 1899. Showing the deaths from all causes and from Contagious Diseases in the province, as reported to the Registrar-General by the Division Registrars throughout the Province.

Issued Nov. 23, 1899,
P. H. BARCK, Secretary.

Year.	Month.	Total population of province, 1892	Total population of province, 1899	Total deaths reported from all causes.	Rate per 1,000 from all causes.	Scarlatina.	Rate per 1,000	Diphtheria.	Rate per 1,000	Meningitis.	Rate per 1,000	Whooping cough.	Rate per 1,000	Typhoid.	Rate per 1,000	Tuberculosis (Consumption).	Rate per 1,000
1899	October	2,275,000 90.6%	2,295,308 90.2%	1,040	10.2	8	0.04	34	0.2	4	0.02	7	0.04	88	0.5	194	1.0
1899	Sept.		2,295,308 90.2%	1,067	10.3	10	0.05	21	0.1	0	0	8	0.04	55	0.3	190	1.0
1899	August		2,295,326 98%	1,088	11.1	8	0.04	25	0.1	5	0.03	16	0.09	55	0.3	172	0.9
1898	October	2,200,072 97%		272	....	14	0.07	39	0.2	4	0.02	8	0.04	54	0.3	153	0.8
1898	Sept.	2,163,131 95%		250	....	11	0.06	33	0.01	2	0.01	13	0.07	44	0.2	147	0.8
1898	August	2,183,103 97%		230	....	10	0.05	16	0.09	6	0.03	12	0.06	34	0.2	152	0.8

* The months of August, September and October, 1899, include deaths from all causes, but the other months from contagious diseases only.

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No. 6.

THE DIAGNOSIS OF THE PRE-TUBERCULOUS STAGE.

In the amount of attention which at the present day is being devoted to the study of tuberculosis, no excuse need be offered for bringing its salient features constantly before the reading medical fraternity, even though nothing new may be added to the subject, and recognizing that the medical mind is perhaps gorged to satiety. When we have repeatedly thrust upon us each and every month by the provincial sanitary authorities the fact that the death rate in this province of barely two million souls, approximates two hundred lives per month and that in all probability 300,000 of that population is destined to succumb to one form or another of the disease, the vast majority from pulmonary tuberculosis; when we all acknowledge and recognize that given cases where the disease exists in the pulmonary organs before the appearance of sputum or the demonstration of the specific tubercle in apparent sputum; when it now cannot be successfully gainsayed that there is a very large percentage of permanent cures in such cases, under properly regulated sanatoria treatment; surely, then, it cannot be too strongly forced home upon the mind of the general practitioner the necessity of fortifying himself with every possible knowledge to this end, that he may be as near perfect as it is possible to be

in diagnosing the existence of phthisis pulmonalis in this ante-tuberculous period.

The advancing tide of scientific thought and research has no doubt long ago compelled Von Ziemssen to renounce the doctrine enunciated by him some five or six years after the discovery of the bacillus by Koch—"No tubercle in the sputum, no pulmonary tuberculosis."

The most brilliant diagnosticians the world over now hold to the opinion that the tubercle bacilli may remain quiescent for many months, almost a year, without outward manifestation before their demonstration in the phthisical sputum; therefore it can readily be conceived how superlatively important it is to be able to diagnose the existence of the disease before the appearance of the bacilli in the sputum.

There are, moreover, pulmonary complaints, bronchitic and asthmatic individuals, the subjects of periodic attacks of these, which in the intervals will defy detection at the hands of the most astute diagnostician, especially in those persons who have something to gain by concealing their true condition.

The difficulty of diagnosing pulmonary tuberculosis in this early stage is well illustrated in Turban's statistics where, out of 408 patients received, 2.7 per cent. only came with the disease in this first stage, two of these beginning under his own observation.

Frequent and regular estimation of the temperature every two hours, from 8 a.m. to 10 p.m., is one most important particular which ought to be strictly carried out and never omitted; and the menstrual period in women is a time when the existence of tubercle may betray itself by this method. In all cases Clifford Allbutt thinks that it will be sufficient to take this by the mouth, first ascertaining that no hot or cold drinks have just been taken and the face not recently exposed to an external cold draught. The thermometer should be left there from five to ten minutes.

Within the last decade the great advances in the science of pathology has taught us where to look for these first lesions, *i.e.*, directly over the posterior apical and subapical areas. Osler tells us that these lesions are not, as a rule, at the extreme apex, but generally about an inch or an inch and a half below it, and located postero-externally. The importance of sounding, then, in the supra-spinous fossæ, is indicated.

Emphasis ought to be placed on the physical examination of the apex of the lower lobe of the right lung, posteriorly, corresponding to a spot opposite the fifth dorsal spine. Here the arm should be so placed that the hand rests on the opposite shoulder, with the elbow horizontal, so as to lessen the thickness of the thoracic wall in that region. The patient should be requested to give a few coughs, after which the stethoscope should be placed

over the spot and any adventitious sounds noted. Of course, it goes without saying, that every patient ought to be stripped to the waist and examined in a clear light. Dr. Allbutt places very little importance on jerky breathing, but emphasizes any lagging in the expansion of either apex with harshness of the murmur and loss of vesicular quality. Although moist rales are probably absent in the great majority of these cases, yet if a single mucous click is heard, that clinches the diagnosis. As for percussion in these early conditions it will take an adept in that practice to make it valuable and it is not possible to bring it to the perfection one can hope to attain through a stethoscopic examination alone.

DOCTORS, DRUGGISTS, AND DEPARTMENTALS.

The last decade of the nineteenth century will go down in the annals of socialistic history as the period of the rise, growth, and development of the departmental octopus. So vividly and indelibly stamped upon our memories is that development within the short space of ten years, that any attempt at refreshing it would be simply superfluous.

Hand in hand with that stupendous evolution came the agonized cry of the little retailers crowded to the wall by the onward march of their gigantic competitors. Foremost in the very front ranks stood our friends of the mortar and pestle, making vigorous and strenuous efforts to stem the advancing tide, realizing that the rich harvests garnered from the sale of patents, toilet articles and druggists' sundries were gradually slipping from their grasps.

In season and out of season no word was too strong to employ in denunciation of these monopolists when it was found that their own corns were being trod upon, and many and long were the days that elapsed before druggists would be found buying any article in these departmental establishments.

Gradually, as the socialistic evolution proceeded, and a strong bid was being made by these self-same establishments for the doctors' prescriptions, a fierce howl of frenzied wrath went up; and irony and sarcasm were yoked to rage and anger in righteous condemnation of the illicit connection.

Fresh as all this is in the memories of the physicians, the long and continued opposition to departmentals at the hands of the druggists, it almost staggers one to read in the October issue of the *Canadian Druggist*, a journal published in this city, a strong plea to their brethren to establish a "department" for "doctors of

refraction" in their respective shops; and, further, counselling graduates in pharmacy to take a course at "some good college or institute" and thus secure a "diploma of a recognized school of optics;" another infringement on the rights of physicians.

Not content with "counter" prescribing, repeated "repeats," disgraceful "substitution," "commissions" to receive patronage, and yellow acts in regard to venereal cases, at one fell swoop, past consistency in agitation is to be wiped out, and another "pound of flesh" gouged from the practitioner of medicine—in this particular instance, the eye specialist.

It is surely a part of the duties, and within the powers of the Medical Council to regulate this traffic in the fitting of eye-glasses, and, if not, they should approach the legislature at once, asking for such powers. Why a student of pharmacy, a jeweller or a Jew, who has perhaps taken a few months at some of these so-called "institutes" for the fitting of glasses, should be considered qualified to act as "doctors of refraction" and be allowed to carry on business under such titles, is neither in accord with common sense nor justifiable toward a benighted public.

When general practitioners, having a minute knowledge of the anatomy, histology and physiology of the eye, refrain from going too far in the treatment of diseases of this organ without a reference of the case to some physician trained and skilled by years of special study in foreign conditions of that body; and, further, when these same practitioners scarcely ever practise the fitting of glasses, how can the general public hope to escape serious injury to these all-important organs at the hands of these charlatans who have no more knowledge of the ocular symptoms of many and several diseases than a dago vendor of bananas or a fish-wife?

Many persons will consequently be put to needless expense by these people who cannot read the signs correctly; serious inroads in the health of other organs may be thus allowed to proceed until valuable lives are placed in jeopardy; and there is no doubt of the assertion that in years to come we will be able to trace many fatalities of blindness through this very medium. This is no trifling affair—even though it prove an advantageous "side line," or "department" to the druggist or jeweller; and the sight of any one individual is a far more valuable asset than any knowledge gained at "schools of optics" requisite to bolster up the vanishing incomes of unsuccessful druggists.

We commend this to the consideration of the member for East Toronto in the Local Legislature whether he can prevail upon that body to grant such powers to the Medical Council.

SUGAR AS FOOD.

Some extent of the use of sugar can be gathered from the enormous amount consumed annually, there being something like seven to eight million tons used in the various countries of the world. Of these England is the largest, consuming eighty-six pounds per capita in 1895, against sixty-four pounds by the United States, thirty pounds by France and seven pounds by Italy, Greece and Turkey. Mary Hinman Abel classifies the principal carbohydrates used as food as follows: (1) Monosaccharids, including hexoses, such as glucose or grape sugar and levulose or fruit sugar, made up of six atoms of carbon, twelve atoms of hydrogen, and six atoms of oxygen; (2) disaccharids, such as cane sugar and milk sugar, made up of twelve atoms of carbon, twenty-two of hydrogen and eleven of oxygen, and (3) polysaccharids, such as starches, made up of six atoms of carbon, ten of hydrogen, and five of oxygen, this combination being repeated an unknown number of times. From the foregoing, it will be discerned that the second group is twice the first without the elements of water, and that the third is the same as the first minus the water. The same authority concludes as follows: "When by chemical means water is added to the second group, it is separated into two hexoses, and when water is added chemically to group three, two or more hexoses are formed. This is the process known as inversion or hydrolysis; and it will be seen that while grape sugar and fruit sugar have the same chemical composition, they are by no means identical bodies, for in them the atoms are differently grouped.

As to the chemical purity there are probably fewer articles in commerce more pure than the best granulated or lump sugar; and in fact a large quantity may be burnt up without obtaining a single trace of impurity. Out of 500 samples of sugar examined by the Division of Chemistry in the United States Department of Agriculture not one was found to be adulterated, which is probably due to the present low price of cane sugar.

The value of sugar as a food is readily comprehended when we remember that probably one-half the food of man is of vegetable origin; and if we follow the course of starch digestion in the animal economy, from the time a mealy boiled potato, for instance, is taken into the mouth, where it is at once acted on by a ferment of the saliva, afterwards supplemented by a ferment in the intestines, broken up into simpler chemical compounds, and finally reaching the blood and muscles as dextrose sugar, there burned to yield heat and muscular energy. Proof there is in plenty of this, as has been frequently found from experiments; and a well-known

practical example of its producing energy is found in the half-starved negro at the commencement of the cane harvests, coming forth from his labor, some weeks later, fat, sleek and strong, after having consumed large quantities of the sugar cane all the time of the harvest. Abel summarizes the value of sugar for muscular work as follows:

1. When the organism is adapted to the digestion of starch, and there is sufficient time for its utilization, sugar has no advantage over starch as a food for muscular work except as a preventive for fatigue.

2. In small quantities, and in not too concentrated form, sugar will take the place, practically speaking, weight for weight, of starch as a food for muscular work, barring the difference in energy and in time required to digest them, sugar having here the advantage.

3. It furnishes the needed carbohydrate material to organisms that have as yet little or no power to digest starch. Thus milk sugar is part of the natural food of the infant.

4. In times of great exertion or exhausting labor, the rapidity with which it is assimilated gives it certain advantages over starch.

The value of sugar in cold climates then is apparent, for in these regions where starchy foods cannot be kept, sugar can be readily supplied, and, in fact, polar expeditions now ship large quantities of sugar as an article of diet. In time it may take the place of fat consumed by the inhabitants of these northern latitudes.

In tropical countries the consumption of sugar is very large, and in India it is said that the workmen must have large quantities daily with their food or quit the job.

Milk is the only source of milk sugar, and as this liquid constitutes a large part of the dietary of the child up to two years of age, the milk sugar imparting the flavor to the milk, one can easily understand how all important it is to prohibit or curtail to a very great extent, all confectionery in the diet of children, because in the infant, gorged with sweets, the appetite is palled and there will be no natural stimulus to partake of milk. Three or four ounces can be digested by the healthy adult in the twenty-four hours, without difficulty, if it is not partaken of in indigestible forms. Professor Miller, of Berlin, states that sugar is not harmful to the teeth, although if it be allowed to cling to the teeth after eating it may ferment, and any acidulous substances produced may then do incalculable harm to these organs. The negroes of the West Indies who consume large quantities of sugar have the finest teeth in the world.

News Items.

THE Medical Health Officer has handed in his report on the Hospital Patient question. The total amount expended by the city on charity patients for the past six years is as follows :

1894.....	\$24,714 35	1897.....	\$26,428 60
1895.....	25,163 30	1898.....	34,186 50
1896.....	32,358 75	1899 (six months).....	26,969 50

Totals from 1894 to 1899 (September 30th) inclusive :

Toronto General Hospital.....	\$104,809 64
St. Michael's ".....	43,164 40
Grace ".....	25,241 40
St. John's ".....	3,270 00
Convalescent Home.....	51,775 40
Western Hospital.....	2,686 20

Admitted to the various city hospitals during the years named :

HOSPITAL.	PATIENTS.	MAINTENANCE.	COST PER PATIENT.
1895—General.....	1,343	\$19,455 20	\$11 48
St. Michael's. Allowance cut off this year by Order of Council.....			
Grace.....	301	4,355 60	14 40
1896—General.....	1,342	18,689 60	13 91
St. Michael's.....	637	8,557 20	13 41
Grace.....	288	7,247 20	13 92
1897—General.....	1,271	19,048 80	15 00
St. Michael's.....	684	9,661 00	12 24
Grace.....	328	5,247 20	16 24
Western.....	60	854 80	14 24
1898—General.....	1,157	16,772 00	14 49
St. Michael's.....	761	11,392 20	14 97
Grace.....	285	4,115 20	15 14
Western.....	43	982 60	22 91
1899—To Sept. 30th—			
General.....	926	12,546 80	13 54
St. Michael's.....	588	8,830 40	15 00
Grace.....	265	3,577 20	13 49
Western.....	40	848 80	21 22

The city pays 40 cents per diem for each patient sent to the several hospitals on an order from the Medical Health Officer.

MAJOR-GENERAL HUTTON and Surgeon-General Neilson addressed the medical students and Faculties of Trinity and Toronto Medical Institutions in the Gymnasium Building of the University of Toronto, on Saturday afternoon, the 9th inst. The General made a decided hit with the assembly and very great interest was manifested in the subject of his mission, viz., the establishment of a bearer company and a field hospital amongst the students of the two colleges. Much enthusiasm was manifested in the scheme. A vote of thanks was tendered the General, proposed in a neat speech by Professor Baker and seconded by Dean Geikie in one of his happiest efforts, which was cheered to the echo. President Loudon presided.

THE twenty-second annual banquet of Trinity Medical College was held on the following evening the 8th inst., Mr. E. A. Boyd presiding and proving himself a capital chairman. Speeches were delivered by the Major-General of the Canadian Militia, Surgeon-General Neilson, Rev. Armstrong Black, Drs. Geikie, Teskey, Powell, Fotheringham, Dr. O'Reilly, of the Toronto General Hospital, who gave the students some sound advice, Dr. Landerkin, M.P., Dr. Roome, President of the Council, Mr. A. T. Hunter for the Law Society and many others. Mr. Newsome, Trinity '00, contributed several songs, which were well rendered and received. The banquet, which was held in the Assembly Hall of the Temple Building, was one of the best in the history of Trinity.

DR. FARRELL, Halifax, who was sent to the Congress on Tuberculosis at Berlin last summer by the Provincial Government of Nova Scotia, has handed in his report to the Minister of Agriculture. It is printed in pamphlet form by the Government for general distribution throughout the province, being especially placed in the hands of school teachers for the purpose of inaugurating an educational campaign against "The White Plague of the North." We are glad to see Nova Scotia leading the other provinces in this matter of educating the public against the dangers of tuberculosis.

ON Thursday evening the 7th inst. the Faculty and students of the Medical Department of Toronto University sat down to their thirteenth annual banquet in the Gymnasium Building. The chair was occupied by Mr. A. J. Mackenzie, B.A., and among those present were Dr. Landerkin, M.P., Dr. Roddick, M.P., Dr. Roome, President of Ontario Medical Council, and Dr. Powell (Ottawa), President of the Canadian Medical Association. Dr. Roddick made the principal speech of the evening, confining his remarks mostly to Dominion Registration.

A SUMMARY of the deaths in Ontario during the month of October from contagious diseases shows that seven died of scarlet fever; thirty-one of diphtheria; four of measles; seven of whooping cough; seventy-five of typhoid fever; and one hundred and seventy-nine of tuberculosis. The total number of deaths in the province for that month was 1,915.

THE *Canadian Druggist* is advocating the establishment of departments of optics in drug stores and advising students of pharmacy to qualify as "doctors of refraction," in order to be able to meet the demand which they state has already been created for young men holding this double qualification.

FROM the laboratory of the Inland Revenue Department another bulletin has recently been issued in regard to Belladonna Plasters, which has been apparently issued for the purpose of confirming that issued from the same source in 1898. A careful perusal of the report gives the results of the examination of thirty-four samples of these plasters, and out of the whole number only two were up to the standard of the British Pharmacopœia. In those two the percentage of alkaloids was .522 and .498.

LONDON, Ont., opened their new hospital on November 16th. It is named the Victoria Hospital, and was erected at a cost of \$100,000. It occupies a complete block of the city and is a collection of pavilions, including one for an isolation hospital, and a special feature of the whole institution is that each pavilion has a "sun room." The style of architecture is colonial; and the location of the institution is on a high bank of the river Thames, facing southward.

NO small amount of comment has been indulged in by the profession in Montreal of late in regard to some druggists of that city who have been diligent solicitors of the doctors' prescriptions on the plea that they possess unusual facilities for dispensing in the most approved style, and at the same time puffing some notorious quack remedy, which has been a profitable article to departmental establishments and grocery stores.

ON December 7th, the Toronto Medical Society participated in a discussion on Enteric Fever, which was opened by Dr. C. M. Foster. Dr. W. B. Thistle spoke on the eliminative treatment; Dr. R. J. Dwyer on the general treatment; Prof. H. B. Anderson on the pathology of the disease; Dr. J. T. Fotheringham on the complications, and Dr. L. M. Sweetnam on the surgical treatment.

DIPHTHERIA has been more than usually prevalent in the cities of Montreal and Ottawa this past fall, there being eight deaths reported in one week in Montreal. There has not been so many cases of typhoid fever.

SMALLPOX is prevalent in Kamouraska County, Quebec. So far there has been no death recorded in that county, nor in Essex County, Ontario, although there have been several severe cases in both districts.

MAJOR-GENERAL HUTTON is interesting himself in the establishment of hospital corps among the medical students of McGill, Trinity and Toronto.

DR. MURRAY MCFARLANE was married on the 4th inst. to Miss Frederica P. Walton, niece of Major Pellatt. Dr. H. A. Bruce acted in the capacity of best man. Congratulations!

DR. WM. J. A. CASE, of Hamilton, Ont., died on Saturday, the 2nd inst. He was born in 1804, and practised his profession in Hamilton for over half a century.

FOLLOWING in the footsteps of the physicians, the druggists and the dentists are discussing the advantages of Dominion Registration for their respective bodies.

THE residents of Deer Park have entered a formal protest against the establishment of the proposed consumption sanitorium in that locality.

DR. T. H. ROTCH, Boston, gave an address on "Infant Feeding," before the Toronto Medical Society on November 16th.

Editorial Notes.

THE PETROLEUM IDEA.—As far back as Pharaoh's time petroleum was used to make sick people well, and with larger knowledge and scientific research comes the positive assurance that nothing is better for throat and lung troubles. When properly refined and emulsified its effect is soothing and healing, but there is everything in knowing what oil to use and how to use it. The best preparation of petroleum for internal use is Angier's Petroleum Emulsion. In the special process by which it is purified they eliminate all the irritating and nauseous properties of the crude oil without losing any of its medicinal qualities. It is pleasant to take, agreeing with the most sensitive stomach. The combination with hypophosphites makes it a valuable nerve food and tonic.

ALCOHOL NOT A FOOD.—Schmidt, E., on the influence of alcohol on the albumen metabolism of the human body. (*Inaug. Dissert. Greifswald*, 1898.) The experiments of Stammreich and Miura, in which after getting the body in nitrogenous equilibrium a certain amount of carbohydrates was removed, and an esodynamic quantity of alcohol was substituted, showed that the primary action of alcohol was not to protect proteids. Schmidt changed the experiment in that after the body was in nitrogenous equilibrium, he simply took so much alcohol in addition to his old diet. His results corroborate those of Miura.

Physicians' Library.

Bacteriology in Medicine and Surgery. A Practical manual for Physicians, Health Officers and Students. By WILLIAM H. PARK, M.D., Associate Professor of Bacteriology and Hygiene in the University and Bellevue Hospital Medical College, New York. In one 12mo. volume of 688 pages, with 87 illustrations in black and colors, and two full-page colored plates. Just ready. Cloth, \$3.00 net.

This new work on pathogenic bacteriology will approve itself to practitioners of medicine and surgery, to health officers and to students, as a modern, authoritative and comprehensive presentation of a science second to none in importance. Laboratory technique is given in its essentials, and to such an extent as is necessary to make bacteriological methods plain to the physician, to guide him in making such examinations as are possible in his office, and to instruct him under what conditions he can obtain diagnostic or other help from bacteriological examinations in laboratories. Particular emphasis is given to such subjects as the chemical changes produced by bacteria, infection, immunity, the nature and use of protective serum, the diagnostic value of bacteriological cultures, etc. To health officers the book will be of great service, as laboratory methods for the isolation and identification of the bacilli of typhoid, tubercle and diphtheria have been given with especial fulness. Illustrations in black and colors have been freely used. Besides a full general index, the volume includes a novel and useful "Index of Diseases and the Bacteria found in them."

A Text-Book on the Practice of Medicine. By JAMES M. ANDERS M.D., Ph.D., LL.D., Professor of the Practice of Medicine and of Clinical Medicine in the Medico-Chirurgical College of Philadelphia. Third revised edition; illustrated. Philadelphia: W. B. Saunders. Toronto: J. A. Carveth & Co. Price, cloth, \$5.50; sheep or half morocco, \$6.50.

Since the appearance of the second edition of this excellent work a little less than a year ago, the author has revised the subject of Infectious Diseases, and the following new subjects have been dealt with: Glandular Fever; Ether Pneumonia; Splenic Anemia; Meralgia Paresthesia and Periodic Paralysis. Comparing this with the second edition, it will be seen that the work in all its departments has been carefully revised, and in some cases re-written, and in many places the classification has been improved upon and the leading symptoms *italicised*—a modification that cannot fail to prove acceptable to the medical student. There is a new page, preliminary to the section on Nervous Diseases, dealing

mostly with the localization and the various methods of investigating Nervous Affections.

Principles of Surgery. Being Lectures delivered upon the Principles of Surgery at the University of Michigan. By CHAS. B. NANCREDE, M.D., A.M., LL.D. With an Appendix, containing a *résumé* of the principal views held concerning inflammation. By WILLIAM A. SPITZLEY, A.B., M.D., Senior Assistant in Surgery in the University of Michigan. Illustrated. Philadelphia: W. B. Saunders. Toronto: J. A. Carveth & Co. Price, \$2.50.

The author submits these lectures trusting that they may be of assistance to students, and of some account to teachers of Surgery. It will be noted in the typography, that the hyphen has been omitted in many compound words, and some familiar ones changed in their spelling—an Americanism. The work will no doubt prove both interesting and instructive to the beginner in the paths of surgery. Except where noted, all the illustrations are the product of the skilful pencil of his assistant, Dr. Spitzley.

Materia Medica and Therapeutics. By ROBERT BARTHOLOW EMERITIS, Professor of *Materia Medica, Therapeutics and Hygiene*, Jefferson Medical College, Philadelphia. Tenth edition, revised and enlarged. New York: D. Appleton & Co. Canadian agents: Geo. N. Morang Co., Limited.

In this tenth edition of this well-known work, the author has added accounts more or less full of the newer remedies; has inserted a special article on "Prescription Writing," which will prove a valuable adjunct to the book, and which will be greatly appreciated by the student. It will be noticed that some trifling errors in previous editions have been corrected, whilst at other points some parts have been completely struck out. A chapter on the Animal Extracts and Electricity will repay close and careful perusal.

A Text-Book of Embryology for Students of Medicine. By JOHN CLEMENT HEISLER, M.D., Professor of Anatomy in the Medico-Chirurgical College of Philadelphia. With 190 illustrations, 26 of them being in colors. Philadelphia: W. B. Saunders. Toronto: J. A. Carveth & Co. Price, \$2.50.

To the scientific student a careful study of this book will be both advantageous and delightful reading, as this is a concise presentation of the subject. Minute detail there is not, which very often serves only to confuse the student, but one will be able to grasp a

SCOTT'S EMULSION

BOTH INDICATED!

Probably you have frequently noticed that when you are about to prescribe cod-liver oil you think of the hypophosphites, while the reverse is equally true. This is because when one is indicated so is the other, at least this is true in the great majority of cases. Physiologically, they combine well, too, one reinforcing the other.

We do not mention glycerine on the label, yet we believe, with the London *Lancet*, that it is exceedingly valuable, in that it aids in the absorption of fats and retards tissue waste.

Scott's Emulsion contains these three remedies, so combined that they never separate or deteriorate in any way. You will find it the most pleasant and most efficacious preparation of its kind on the market.

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