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Original Articles

A CASE OF GONOCOCCAL SEPTICAEMIA

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The patient, a male, *act.* 26, was referred to me for the cure of a slight gleet. He gave a history of infection with the micrococcus of Neisser, one year previously, but was cured (?) in three weeks with injections by a physician who believed in the possibility of rapid and complete cures of gonorrhœa. However, the "bon-jour" drop had persisted ever since.

The patient was at first put on urotropine and methylene blue for a couple of days; then the prostate was gently massaged per rectum, but very little secretion was obtained at the end of the penis.

In two days' time the patient returned, complaining of the typical symptoms of an acute attack of gonorrhœa. There was a profuse yellowish discharge from the urethra, which, upon microscopic examination, showed a pure culture of the Gram-negative intra-cellular diplococci, and there was no doubt but the case was one of acute gonorrhœal urethritis arising from germs massaged from a latent focus in the prostate, as the presence of a recent infection had been excluded. The patient was put on santalwood oil, m. 10—q—6 hrs., and the urotropine continued. He seemed to improve for a couple of days, then became acutely ill with general constitutional symptoms characteristic of a general blood infection.

The discharge had practically disappeared, but upon examination the prostate was found somewhat tender and swollen, and there

was much irritation at the trigone of the bladder, causing intense pain on micturition.

The vesiculae seminales, vas and epididymis were not involved now or at any time; but to prevent the so-called "reverse currents of the vas" carrying the infection to the epididymis, suppositories of atropine were prescribed, as advised by Schindler and Low.

The patient was ordered to hospital, accordingly, on Oct. 20, 1912, and remained there until Nov. 8, 1912. On entrance, the temperature had reached 104° F.; pulse, 100; respiration, 24.

The condition of the patient not improving, a consultation was held, and it was suggested that the condition might be one of gonococcal pyelitis, complicated by streptococcal infection. Certain symptoms of meningeal irritation also suggested the possibility of a gonococcal meningitis. But the examination of the urine and of the cerebro-spinal fluid revealed nothing to verify it, though certain clinical symptoms, e.g., intense headache, photophobia, and stiffness of the cervical muscles rather suggested some meningeal irritation.

There was also a severe herpes of the face.

The patient was evidently suffering from some generalized infection; in other words, an acute septicaemia, in spite of repeated negative blood-cultures and negative Widal's.

Knowing how difficult it is to obtain cultures from the blood, it was considered wise to give the patient sera. Accordingly, 20 c.c. of anti-streptococcal serum were given. There was no very marked reaction, except a slight fall in temperature, and this did not last very long, the effects wearing off in 36 hours.

The patient now complained of a pain in the side, which seemed to be an involvement of the pleura, a serous membrane surface, such as the meninges. Here anti-pneumococcal serum was advised and given, 20 c.c. in 150 c.c. of normal saline, intravenously.

There was a sudden drop of the temperature and pulse for 12 hours, and then a return of hyperpyrexia as bad as ever.

We were now convinced that neither the streptococcus, nor typhoid, or influenza or pneumococcus were the causative agents, but that this was a case of gonococcal septicaemia. The germ certainly had not been isolated from the blood, but there were many clinical manifestations of its toxins in the circulation. Besides, one must remember that it is very probable that certain symptoms are due to the toxins—"gonotoxins" and others to the presence of the germ in the blood-stream, though they must always be present in small numbers, as Cheyne¹ states is the case in any acute septi-

cæmia. The germs probably very soon form metastatic foci, and from these shed their toxins into the blood-stream, e.g., in endocarditis there are probably metastatic foci involving the valvular tissue. The toxins of gonococci especially attack serous membranes; hence the symptoms here of meningitis and pleurisy.

The toxins also attack the central nerve ganglia; therefore the presence of the herpes facialis in this case.

Hence, since there was no tangible focus to be found except that in the prostate, after again giving anti-streptococcic serum 20 c.c. and getting no reaction, it was determined to persevere with the mixed gonococcal vaccine. Accordingly, acting upon the suggestion of Dr. George Ross, the patient was given 15 million g.c. in the mixed vaccine. There was a decided reaction. The condition generally improving. Encouraged by this, the dose was repeated, slightly smaller, 10 millions g.c. After this, with the exception of a slight rise in temperature, the improvement was continuous. Another 10 millions was given four days later. The condition improved without interruption, and the patient left the hospital Nov. 8, 1912, feeling quite fit.

There have been very few cases of gonococcal septicæmia reported in the literature.

Cases of endocarditis and arthritis are really metastatic diseases due to the deposit of the gonococcus in the tissues.

Those cases of arthritis, where many joints are involved, are probably due to the actions of the toxins upon the serous membranes of the joints, just as we had pleuritis and meningeal symptoms in this case.

The fact that the germ was not found in the blood-stream really means very little. Most diseases we now know have the germ present in the blood, provided one takes a sufficient volume of blood, e.g., the typhoid germ is in the blood very early in the infection.

In the case of the gonococcus, there are two good reasons for not easily finding it:

1. The large volume of blood required—2 to 3 c.c. at least².
2. The great difficulty in cultivating the germ *in vitro*.

That there is a septicæmic disease resembling typhoid fever in many aspects has been stated by Dieulafoy, who reported two cases in 1909³; also Muir and Ritchie⁴ state the same.

LITERATURE.

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2. Horder, T. J.—*The Practitioner*, Nov., 1905.
3. Dieulafoy—*Bulletin de l'Academie de Medicine*, May 18, 1909.
4. Muir and Ritchie, Manual of Pathology, 5th edition, page 256.

THE CURE OF POVERTY

BY A. C. E.

Clean up the world and Christianize it, and poverty will disappear.

Of all the universal, world-wide movements upon earth to-day, none is more outstanding in importance, none of more lofty reason, none of more life-rendering fruitage, than the public health movement. To this there is one single exception—the winning of the world for Christ. It transcends the peace movement, and in its broad and general aspects makes for cleanliness, which is next to Godliness. It spells health in the home, a sound mind in a sound body, morality, contentment, happiness, plenty.

If we are to-day not in the era of preventive medicine, we are at least upon its threshold. Long years ago one of the distinguished scientists of Great Britain, Sir Lauder Brunton, predicted that early in the twentieth century the medical profession would be more engaged in preventing disease than in curing the ill's flesh is heir to. This campaign is now on all over the civilized world.

In order to strike the parallel, in order to make the most marked emphasis upon this greatest and best of conservation virtues, that most lamentable and most momentous of modern maritime disasters—the loss of the good ship, the Titanic—may be recalled and contemplated with the utmost profit.

“T—i—t—a—n—i—e, we were given to understand—the whole civilized world was given to understand—spelled the last word in naval architecture.

“Giant of the seas, early on the morning of the 15th of April she went headlong to her destruction, and the whole civilized world

was immediately plunged in overwhelming and stupefying horror.

"Philanthropist and millionaire, great railway promoter and distinguished *litterateur*, financier, lawyer, merchant, physician, officer, engineer, musician, laborer, artisan, mechanic, stoker, sailor, immigrant—men and women in almost every walk of life—dived to eternity with a calmness beyond the conception of mortal mind.

"Only when the sea gives up its dead will the true inwardness of that awful calamity be revealed.

"From out the dark, tragic gloom there shone the splendid, matchless heroism and nobility of soul.

"Not the least of these was that honored band of musicians.

"Nor can we fail to admire the unshaken nerves of those fearless and intrepid wireless operators.

"There were many acts of true chivalry; and now, after all inquiries have been instituted, and after all findings have been made and presented, true humanity can but weep and sorrow over those who were lost, and rejoice over those who were saved."

But turn from the contemplation of that heart-rending catastrophe to only one of several happening every year of our lives on this North American continent.

In the year 1910 alone, in the United States alone, 25,000 people lost their lives from an altogether preventable disease—typhoid fever—a disease which has been denominated a disgrace to civilization. In our own Province of Ontario, in that self-same year, seven hundred-odd yielded their lives to a similar cause.

Take these 25,000 (mostly young and vigorous men and women) who yielded up their lives in one year; gather them together into one moderately-sized city, or even into the largest city in the land; let them all die in one epidemic in a given time, and all humanity will stand aghast and lift up its hands in holy horror at this awful devastation of human life. But because they are distributed over wide areas of the country, their demise is neither felt nor noticed so keenly.

But this is only one of many. Consider tuberculosis, diphtheria, scarlet fever, infantile paralysis, and all the other communicable diseases, as well as those which are unmentionable—and their name is legion. The misery they engender is infinite. Their economic loss to the community cannot be measured up nor balanced up with cold coin of the realm.

And in the individual home, when the young life is proceeding to a successful convalescence in typhoid fever, and an accident happens—a profuse and exhausting hemorrhage or a perforation of

the bowel, or sudden heart failure—and that young life is snatched hence, surely the death is as tragic in that family as death by drowning, even in a great disaster like the Titanic.

Upon any night in mid-winter, when disease is most prevalent throughout the land, it has been conservatively estimated that one in one hundred of the population lies ill of some communicable yet preventable disease. Humanity can well afford to ponder and reflect upon this statement. Does not ill-health, sickness and disease entail untold misery, trouble, expense, inconvenience—to the poor especially?

Public medicine, with all its subsidiary branches, preventive medicine, sanitation, pure water supplies, proper sewage disposal, pure and clean foods, infant mortality, clean milk, the medical supervision and inspection of school children, hygiene, all offer the best there is in life, and more especially to the poorer classes.

The clerical profession and the medical profession, with the intelligent and undivided support and co-operation of the public generally, must join hands to uplift and ameliorate the sufferings of the poor. There must be a strong union, offensive and defensive, and the hand, once to the plow, must not turn back.

It is the part and duty of religion to collect men together. It is within its sphere of life to inculcate honesty and integrity, to promote morality, to foster truth and offset tyranny, grinding taxation and superstition.

The two professions of medicine and religion get nearer to all classes of the community than any other callings. They see life exactly as it is. They see the felon in his cell, the tatterdemalion in his garret or cellar, the millionaire in his mansion, the king in his palace.

“Go, and do the best you can!” was the mandate given by nature to man when our species was created. Equipped with instinct, endowed with reason, love and benevolence implanted in our bosoms, we have evolved a democracy which is not based upon the terms of equality. The rich are getting richer, while the poor are getting poorer.

The aesthetic mind contemplates with agony the misery and squalor of the poor. The wretched are burnt up with envy toward the rich.

It is needful for civilization, however, that there must always be some class of man to do the rough work of the world; and the man who goes down into the ditch and does this rough work of the world is entitled to be well paid for it. And, to put a new suit on an old adage—every man is entitled to the dollar which he earns.

Godliness makes for contentment and happiness. Cleanliness, which is next to it, makes for health in the home. The two joined will make for the best there is in life for all.

The necessity for a union of religion and medicine having been established, how is it to be brought about, and how will it work out in treating poverty and effecting a cure of this disease of the body politic, for it is nothing else than a disease, being neither vice nor crime, and, therefore, not infamous.

Let us now consider, studiously, philanthropy and the efforts towards which it has heretofore been directed—the greatest good to the greatest number.

Philanthropy has always concerned itself with and directed its efforts towards the establishment, maintenance and endowment of hospitals and such-like public institutions, universities, colleges, higher extension schemes of education, medical research, public libraries, foundation schemes, churches, special homes, refuges, orphanages, schools, benevolent societies, etc.—all collective philanthropy and in nowise individual. There has been no noisy intrusion of the domain of the poor to help one, a dozen, or a hundred, towards betterment and success in life. In this respect, the poor have been left severely alone by the philanthropic. They have been smothered with collective charity, galling and nauseating. There has been no place to which the individual could go, no State institution or society where financial assistance was honorably obtainable when needed. It has been either beg or ask alms. Yet there is ample and enough in the world for all.

Francis Bacon had the true conception of philanthropy, when he wrote the following: "I take goodness in this sense, the affecting of the weal of men, which is that the Grecians call *philanthropia*; and the word humanity, as it is used, is a little too light to express it. Goodness I call the habit, and goodness of nature the inclination. Riches are for spending; and spending for honor and good actions."

Instead of having in the mind's eye, forever, the universal good of mankind in general; instead of always seeking to do good for a community, collectively, philanthropists turned to the individual in need and assisted the needy, one by one, there would soon not be such manifest requirement for all the charities, and a great amount of tangible, individual good would be done to the home, the unit of society.

But to arrange to help deserving individuals in times of stress, it will be necessary for the act to be shorn of all semblance of

charity. It must be given the physiognomy of an honorable transaction.

Any great and comprehensive scheme of national betterment of the poor needs to be well organized. If the poor of the nation are to be benefited; if the cure of the disease, poverty, is to be accomplished for any nation, any such scheme must spread itself over the face of the entire country. But then governments have to be convinced of its feasibility. Governments are proverbially slow in taking up with new ideas, and they are just as slow in providing the machinery, the necessary legislation, for the administration of any new organization.

But, happily, it does not always need legislation to start any new society or organization. A beginning can be made and incorporation secured afterwards. A new organization in any given community, proving successful, blazes the path for others. The example set is soon followed. The good work it is doing gains access to the public press. It is talked about, read about, written about. It thus receives wide advertisement. From local it spreads to be provincial. It attracts the attention of the nation. The nation is no longer listless. It has proved itself. The nation is interested. Interest produces action. Action results in legislation. The scheme is now national. It is bound up with national life. It becomes part and parcel of government. As a spring trickles over and becomes a creek, other springs trickle over, run into it, and the creek becomes a stream, and the accession of other tributaries soon swells it into a mighty river; so a successful new organization soon spreads itself over the face of the land. Thus, for a time, good is being done, until a great national asset is established.

Churches are everywhere; ministers are everywhere; doctors are everywhere. The poor is ever with them. They know the poor and needy. It makes no difference what church, Catholic or Protestant, whether it is Baptist, Methodist, Presbyterian, Anglican, Lutheran, or what not.

Let us first take the case of a Methodist church in a large city. It is desired by the people of that congregation to help the poor of their own particular congregation, already adherent to their particular church, to do away with poverty so far as any of their church members are concerned. Let an organization, association or society be formed in connection with that church—a league bearing the name of the church, and dominated by it—for instance, the Broadway Methodist Church League of Finance and Health. Like all properly constituted societies or organizations, this League

should have a Constitution and By-laws for its guidance and governance, officers and Executive Committee.

It is now ready for its work, which is to ameliorate the conditions of its poor attendants, to cure the disease of poverty amongst them. Someone says we have no finances. They must get them. How? By establishing a permanent fund in connection with their League. A philanthropist must be got, either in that church or out of it, to donate to their League the ten, fifty or one hundred thousand dollars which he is going to donate to or leave to some hospital, public library, college or medical research fund; or the wealthier and better class of that church are to be appealed to for subscriptions to establish the fund.

The League is now established and the funds are in hand. It is prepared to do business. It must be published to all the members of that church, irrespective of their conditions in life, because it is a business proposition pure and simple, and is in no sense a charitable organization, that any member can borrow from that fund at bank interest small but satisfactory amounts for their present and pressing needs and emergencies, for stated periods, on their own non-negotiable paper, the only condition attached to the transaction being a hygienic one: that they will do their share towards cleaning up the world and preventing disease, social as well as physical.

It will be necessary for the clergyman and the doctor—a qualified medical man—though one of that particular congregation might be better—to attest to the condition of the life of the applicant, his home-life and environment, before any such advance is made.

It will be the duty of this church League to preach Godliness and cleanliness, to inculcate honesty, morality and hygiene, all and everything which will spread abroad the propaganda of religion and sanitation.

When it came to be known that this church had funds to loan to deserving poor who would try to help themselves, and that only those would receive assistance in this financial way who came within the pale of that church, people would hasten to identify themselves therewith.

Its membership would very soon have to be limited, but the example set would stimulate other churches to follow suit. Soon all churches in that city would establish these Leagues. This would offset any appearance of proselytizing.

Loan-sharks, usurers and pawnbrokers would have to go out of business. Distress for rent and bailiffs would become obsolete. The

churches would prosper. Religion would collect men together rightly. The public health propaganda would be a mighty power in the land.

Many sicknesses and much disease would be banished from the home. Worry and financial trouble would cease. Hospitals, sanatoria and homes would be to let. The conditions of the laborer and artisan would be enhanced. Those of the deserving poor would be advanced. The undeserving would take thought to themselves, which thought would add to their station in life. They would know where to get the money for the necessaries of life. Church associations and environment could not be but beneficial to all.

To put this new philanthropy in a more practical light: Let us take the case of a man in middle life—a workingman with a large family, who, in that respect alone, is doing good to the state; let us suppose he has bought and is paying for his home for himself and family. Adversity or sickness knocks at his door, and he loses his situation or "job." Here is the very particular case where a loan from a church philanthropic league would bring him and his family freedom from care and worry, financial worry, the worst of all worries, until the tide turned in his favor and he found himself back at his own or some other employment.

Or take the case of a widow, with a family of small children, when the breadwinner has been summoned hence; could she not hold her head up and go in and out amongst her small or large circle of friends and do the best she could on financial assistance got from an honorable source, until such times as her family would grow up to help her, or she could manage on the money loaned to establish in some business for herself or find employment?

Or the young man or girl wishing to get a business or other education for himself or herself—would they not deem life worth living if the church could help them? Would they not consider after all that there was really something good and tangible in religion? Would they not then think that religion was the truest of all philanthropies, that would bring these blessings in its train.

This is the medicine to cure poverty—poverty often with its dirt and disease. This is the dose to squirt under the skin of civilization. You can have all the movements for good you want to have; you can build, equip and maintain all the institutions you want to; you can preach all the sermons, deliver all the lectures, cram the newspapers, periodicals and magazines with facts, figures, information, solicitations and lamentations over the poor, but unless you can come down with the cold coin to the individual and the individual home, all your labor will go for naught.

But the moralist says: "Put money into the hand of the poor and they will immediately spend it in riotous living and in drink." That is to say, we have the idle poor as well as the idle rich. That is to say there is implanted in the bosom of every man something more than the mere vain, fanciful desire to get on in the world. He must have his pleasures and his happiness. Essential to this is money. Your moralist would, therefore, deny the pleasure of a drink to the poor man, leaving the rich man to imbibe it *ad lib.* Not so. But, yes. The poor is never mentioned by the moralist, but alcohol is the cause of it all.

Let us take that for granted, then, or at least consider that alcohol is mainly the great contributing factor to the disease of poverty.

Clean up the world and Christianize it. Christ said: "Love one another." The temperance people who, if they are not the embodiment of all that is religious in life, at least stand, in their own estimation, the better moiety of mankind. Instead of making love to all those engaged in the liquor traffic, they have waged perpetual war, war, war, against them from almost the dawn of civilization.

In spite of all the education on the subject, in spite of all the legislative enactments to regulate and control the liquor traffic, the fact remains that, year by year, the *per capita* consumption of alcoholic beverages increases.

Temperance people will persist in considering that the liquor traffic is one that can be controlled and regulated by government. It is undoubtedly a social evil, and all right-minded men would be glad to see it curtailed in its ravages.

It has made immense sums of money for some, whilst it has degraded and ruined many.

All over our land, religion is mortgaged, while King Alcohol stalks forth unencumbered.

So, if people are to drink, as they have done in all ages, and as legislation and education have failed to control it, why not let religion, the church, control it and make money, free themselves from their mortgages, establish funds for their work to cure poverty, bring all into their fold, and so clean up the world and Christianize the world? The profession of the church and the profession of medicine could do more to regulate and control the liquor traffic than the politicians.

The drink evil is not a political question. It is a moral and a medical question.

The abuse of drink is as much a medical question as the abuse

of drinking too much water, the eating of too much meat or any other food, the abuse of morphine, cocaine, chloral or chloroform. "If meat make my brother to offend, I will eat no more meat while the world lasts." No one takes that literally, although meat often makes a brother to offend. Meat in this quotation does not mean meat at all; it means strong drink, says your moralist. That may be so. The One who said it knows.

If it is a medical question and a moral question, it is for the clergyman and physician to regulate and control. It is for the clergyman to inculcate morals. It is for the physician to assist nature in curing disease.

When necessary, the physician prescribes alcohol like any other drug, in stated quantities, at stated intervals. He will tell you that your constant, regular drinker is the man who is offending his physical well-being, who is producing those hardening degenerations in his tissues which result in early decay and death. The periodical-spreed man escapes these, but his morality is at fault, and requires the clerical corrective.

Alcohol is not to work on. It recuperates after work. If moderately consumed, now and again, no fixed habit, and no drunkenness, it will not conduce to physical decay nor to immorality. It is not well to eat meat all the time. So it is not well to drink all the time.

The doctor will tell you that it is the forenoon drinker who will go to the bad. To drink in the forenoon is pathological. Look out for a dipsomaniac in the constant, regular, forenoon drinker, or an attack of delirium tremens, when the drinking is excessive. After a day's work, as it is recuperative, it is natural, therefore physiological.

All saloons, hotel bars, liquor shops should be closed in the forenoons. One has only to go into any of these and observe for himself, any time up to eleven o'clock in the forenoon. If the profits of the liquor traffic came from drinking up to that hour, they would all soon have to put up their shutters. If there is much drinking going on in the bars up to that hour, all the more reason, from the scientific standpoint, for the closure of those bars.

The cure of poverty, therefore, lies in the control and regulation of the liquor traffic by the church, as it chooses to make rules for its sale and distribution, the establishment in the church of Leagues of Financial and Public Health import, as herein specified, and the amalgamation of medicine and the church in carrying out this new philanthropy.

This would be placing the liquor traffic in respectable hands, satisfactory to all; would mean that all money expended for liquor would come back to the church; would place the church in the closest possible touch with all those needing their light and their guidance; would make proper drinking a pleasure, just as proper eating, and would give the church unbounded funds to carry on their work of cleaning up the world and winning it over for Christ.

Vomiting of Infants.—Sébilleau has found a tablespoonful of 1.7 per cent. of solution of sodium citrate added to each feeding, or given to the child before being put to the breast, very valuable. Both American and English writers regard this as an efficient remedy.

Pott's Disease.—Openshaw and Roth (*The Lancet*) give an account of the treatment of Pott's disease as carried out in the London Hospital during the past ten years. The two principles of the treatment are: Putting the diseased parts absolutely at rest, and not interfering surgically until forced to do so. As soon as Pott's disease is diagnosed, the child is measured for a double Thomas hip splint, with head and feet extensions. Until this is made, the child is kept in bed. Once the patient is placed in the splint, he is never taken out, except once weekly, until a complete cure is established. The Thomas splint has these advantages over others:

1. It fits for years; for the head and feet extensions being adjustable, can be lengthened as the child grows.
2. The diseased portion of the spine and abdomen and groins can always be inspected without removing the splint.
3. If a sinus is present dressings can be applied.
4. The child can be washed daily, and so prevented from becoming verminous.
5. The splint does not cause sores.
6. It does not interfere with growth or chest development.

THERAPEUTIC NOTES

Pulmonary Tuberculosis.—N. K. Wood (*Boston Med. and Surg. Journ.*) claims that the results of treating pulmonary tuberculosis by the class method show 72 1-2 per cent. of the patients living at the end of six years. By this means patients can be kept under observation from one to five years. It teaches patients to be faithful to the treatment, and thus educated, they continue sleeping outdoors after discharge from the class. Fifty-seven per cent. have returned to useful occupations for 26 1-2 months. In some the tuberculous processes have been arrested without the loss of a day's work.

Hemorrhage.—G. H. A. Clowes and F. C. Busch (*N. Y. M. J.*) point out that in all forms of hemorrhage due to low coagulability, blood serum is of considerable value, and that animal serum is as good as human. Precipitated serum can be obtained with a suitable mixture of acetone and ether. It is freely soluble and sterile, and always available. Horse serum seems to be the best, and there are no deleterious results.

Pleural Effusions.—H. M. Davies (*The Lancet*) states that the ordinary method of withdrawing fluid from the pleural cavity is most unsatisfactory, for, as a general rule, never more than 50 per cent. can be withdrawn at a single tapping. He produces artificial pneumothorax by the introduction of oxygen, which is readily absorbed, as follows: Under local anesthesia, a needle connected with the aspirating apparatus is introduced through the eighth intercostal space in the midaxillary line. Above this, in the fifth space, in the same line, a needle connected with the oxygen apparatus is introduced. It is essential that the manometer should show respiratory movements, and only when these are shown should the oxygen be allowed to escape. Upon aspirating, when the patient coughs or experiences pain, the aspiration is discontinued, and 50 to 100 c.c. of oxygen are allowed to run into the cavity slowly. Davies claims the pain and cough will at once disappear, when the aspiration is to be resumed. This is repeated until no more fluid

can be withdrawn. As the end of the operation approaches, oxygen will escape with the fluid, when the proportion introduced to fluid withdrawn should be increased.

Psychoneuroses.—Vogt (*Berliner Klin. Wochen.*) groups neurasthenia, hysteria, hypochondria, psychasthenia, certain cases of psychic degeneration and mild melancholia under the term psychoneuroses. In these there is extreme subjective suffering and an absence of organic alterations, although somatic derangements may exist. The treatment is bodily and mental. The author repudiates the so-called intellectual method of treatment, and says all other methods come under suggestibility, whether by hypnotism or any mode which will overcome the internal resistance.

Neurasthenia.—Rauschborg (*Deut. Med. Wochen.*) says, for idiopathic or neuropathic memory failure, there has never been a somatic treatment recommended for this condition. In acute cases, patients should have dietetic and physical treatment in sanatoria. The physical treatment should be head massage, galvanization, sinusoidal voltaization, the franklinic douche and hydrotherapy. Of internal remedies, those that contain phosphorus are recommended, such as glycerophosphates, hypophosphites, lecithin and spermin. In cases where there are evidences of cerebrasthenia, country life, with farming, gardening and moderate sport. In mild but obstinate cases, a sea voyage, sea shore or a mountain sojourn may be tried.

Gonorrheal Rheumatism.—Herman L. Kretschmer (*Thera. Gazette*) has an article in the January, 1913, number, on the use of gonorrhoea phylacogen in the above condition. He says this new remedy has practically displaced its forerunners. In his cases the individual injections varied from 5 c.c. to 10 c.c., and were given every day or every other day. Various amounts were given, but to one case as much as 135 c.c. were administered. One must be careful of the cessation of the treatment too soon on subsidence of the symptoms, as relapses may occur. It is essential that an absolute diagnosis is first established before treatment is instituted. He considers that gonorrhoea phylacogen is a valuable adjunct to our present methods of treatment.

Tuberculosis.—Levy (*Deut. Med. Wochen.*) refers to the Friedmann method of specific treatment by immunizing with non-virulent living cultures, despite the advocacy of dead cultures by Koch, which have been held by many as insufficient. Levy holds that the specific treatment of the future must consist of active immunization. The predominant idea is an artificial vaccination-tuberculosis to protect the patient from the natural disease.

Eczema in Young Infants.—P. Rudaux, A. Grosse and V. le Lorier (*Thera. Obs.*) prescribe successfully the following: Zinc oxide, 7 grams; vaseline, lanolin, sweet almond oil, of each 10 grams. As this condition in young infants is invariably due to overfeeding, the regulation of diet is most essential.

Psoriasis.—Haldin Davis (*Univ. Med. Record*) says arsenic, thyroid extract and salicin are the most important drugs in this affection. He prescribes liq. potassii arsenitis, m. 2 to 5; sodii bicarb., grs. 10; inf. gential co., q. s., add one ounce. The dose of arsenic may be increased gradually every third or fourth day up to 20 drops.

Tic and Spasm of Face.—Alfred Gordon (*Thera. Gazette*) concludes that the procedure of alcoholic injections into the facial nerve is the most satisfactory of all therapeutic measures known at present for spasm of the face. In some cases a single injection will remove the twitching, but recourse may have to be made to the second, or even third. As the genesis of tic is not in the facial nerve, but in the patient's psyche, this must be treated by psychic measures, and not by material agents. Therefore, the necessity is apparent for a correct diagnosis before treatment is undertaken.

Worms.—Guiart (*France*) prefers thymol in all cases of worms. No purgative is given the night before, and no milk diet should be used. On three successive days the patient is given in the morning, fasting, every hour, two or three cachets, two to fifteen grains of powdered thymol, according to age. A little water is given after each wafer. Five hours after the last cachet, if no evacuation naturally, a purgative, but nothing containing oil, grease, glycerine or alcohol should be administered.

Corpus Luteum Organotherapy.—Krusen (*Am. Jour. of Obs.*) has given a careful study of the literature, as well as his own patients, and formulates the following concerning the present status of corpus luteum organotherapy:

1. The ovary possesses an internal secretion.
2. This internal secretion is produced by the corpus luteum.
3. In so-called ovarian insufficiency, relief may be obtained with an extract of the corpus luteum.
4. No untoward symptoms result from its use in conditions where it is indicated, even if no relief is obtained.
5. The extract should be given a fair trial before it is discontinued.
6. The extract used should be one that has been carefully prepared.
7. All glands that possess an internal secretion are more or less intimately connected.
8. Further experimental work will no doubt add new light to many of the questions that are still in a nebulous stage.

Illuminating Gas Poisoning.—McCombs (*Am. Jour. of Medical Sciences*) says that the essential treatment is the inhalation of oxygen, under pressure, if possible; and it is indicated in all stages. Seen early, the case should be treated with fresh air and mild stimulation, as with aromatic spirits of ammonia. With the nausea, vomiting and headache present in the first stage, relief to the gastric symptoms may be quickly obtained by some effervescing salt. The effervescing phosphate of soda is good. Headache will continue from twelve to twenty-four hours. Avoid collapse by any unnecessary exertion. When the patient is unconscious, but breathing—the second stage—respiratory action, if not stertorous, may be assisted, and here the Howard method by compression of the lower chest in rhythm with expiration, will be found effective. Oxygen, under pressure. The “pulmotor” may be used if at hand, maintaining a mixture of oxygen and air—60 per cent. oxygen. Medicinally, hypodermics of strychnine, camphor, caffeine and digitalis. Heat should be applied, preferably in a warm room, as a collapse is to be avoided in the colder open air. Massage of the muscles after aerating the lungs should not be forgotten. If demanded, venesection, with the introduction of normal salt solution, should be employed. Crile and his followers practise the direct

transfusion of blood. He believes this the best method. In the third stage, where the patient is not breathing, and is unconscious, maintain artificial respiration, oxygen, stimulation and heat. The Schafer or "prone pressure" method, is the best to use. Transfusion is indicated. So long as six hours' artificial respiration has been maintained, with recovery of the patient.

Suppurative Otitis Media.—Christie (*N. Y. M. J.*) claims, from his own experience, and the experience of others, that vaccine treatment in acute suppurative otitis media should be confined to those cases which are resistant to local treatment, and should be used in addition to such treatment. Vaccines are of value in most sub-acute cases, but in chronic cases their field of usefulness is much restricted. That they have a place in the treatment of suppurative conditions of the middle ear is established. Their use is justified and imperative to avoid the dangers of chronic suppurative otitis media.

Typhoid Fever.—M. Carles (France) has recently reported forty-four cases of typhoid fever treated with tincture of iodine with very good results. This he considers rational treatment, as hypoleucoctosis constitutes the most important infection of the organism, and tincture of iodine is the most important means of defence in producing hyperleucoctosis. The remedy is given as follows: Tincture of iodine, 20 drops; iodide of potassium, 2 gms; water, 6 ounces. To be taken during the day. The tongue clears off with this treatment, diarrhea is arrested, and the temperature falls. Arnozan says this treatment should not be exclusive, but cold bathing and subcutaneous injections of strychnine and camphorated oil should be administered as complications may arise.

Reviews

W. B. Saunders Company, publishers, of Philadelphia and London, have in active preparation a work on the History of Medicine, by Dr. Fielding H. Garrison, Principal Assistant Librarian, Surgeon-General's Office, and Editor of the *Index Medicus*. Dr. Garrison's twenty years' experience in medical bibliography, and the unusual advantages derived from his close touch with the rich stores of the Surgeon-General's Office, fit him most admirably for such a work as this.

His book will present the history of medicine from the earliest ancient and primitive times; on through Egyptian Medicine, Sumerian and Oriental Medicine, Greek Medicine, the Byzantine Period, the Mohammedan and Jewish periods, the Mediaeval Period, the Period of the Renaissance, the Revival of Learning and the Reformation; the Seventeenth Century (the Age of Individual Scientific Endeavor), the Eighteenth Century (the Age of Theories and Systems), the Nineteenth Century (the beginning of Organized Advancement of Science), the Twentieth Century (the beginning of Organized Preventive Medicine). There will also be Appendices covering Medical Chronology, Histories of Important Diseases, Histories of Drugs and Therapeutic Procedures, Histories of Important Surgical Operations, and Bibliographic Notes for Colateral Reading.

Dr. Garrison's work will undoubtedly be a valuable book to every medical man. In this one volume he will get a complete history of medicine from its earliest times, presented in a concise form.

The illustrations are intended to stimulate the reader's interest in the picturesque aspects of medicine and in the personalities of its great leaders. The biographies will be confined to the most important facts and to interesting personal traits. The original bibliographic references to the important discoveries, operations and experiments will be given. Each period is to be followed by a brief survey of its social and cultural phases. Altogether it promises to be a most important addition to medical literature. We await its publication with much interest.

Receipt of the following books is acknowledged for review:

Text-Book of Ophthalmology. In the form of clinical lectures. By Dr. Paul Roemer, Professor of Ophthalmology at Greifswald. Vol. II. Price, \$2.50. New York: Rebman & Company.

Psychoanalysis. Its Theories and Practical Application. By A. A. Brill, Ph. B., M.D. Price, \$3.00. Philadelphia and London: W. B. Saunders Company. Canadian Agents, the J. F. Hartz Company, Toronto.

The Principles and Practice of Obstetrics. By Joseph B. De Lee. Cloth, \$8.00; half-morocco, \$9.50. Philadelphia and London: W. B. Saunders Company. Canadian Agents, The J. F. Hartz Company.

Vaccine Therapy. Its Theory and Practice. By R. W. Allen, M.D., B.S. (Lond.). Fourth edition. Price, \$3.00. Philadelphia: P. Blakiston's Son & Co.

The Labyrinth. An Aid to the Study of Inflammations of the Internal Ear. By Alfred Brann, M.D., and Isidore Friesner, M.D. New York: Rebman Company.

Diseases of the Throat, Nose, and Ear. For Practitioners and Students. By W. G. Porter, M.B., B.Sc., F.R.C.S. (Edin.). Toronto, the Macmillan Company of Canada, Limited

Pye's Surgical Handicraft. Edited and largely rewritten. By W. H. Clayton-Greene. Sixth edition. Toronto: The Macmillan Company of Canada, Limited.

International Clinics. Vol. IV. Twenty-second series. Philadelphia and London: J. B. Lippincott Company. Canadian Agent, Mr. Charles Roberts, 608 Lindsay Bldg., Montreal.

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And Ontario Medical Journal

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COMMENT FROM MONTH TO MONTH

Dr. William Beattie Nesbitt died in Toronto on Friday afternoon, the 31st of January, about one hour after Mr. Justice Middleton had quashed all the indictments against him in connection with the Farmers' Bank case. He was forty-seven years of age.

The late Dr. Nesbitt was the founder of this and other journals. Indeed, he was a man of so much vitality that he could never be at rest, not even when promoting half-a-dozen enterprises at once.

In many ways he was one of the most remarkable men this Dominion has produced. No one doubted his ability, his brain power or his physical prowess. The men who actually knew Beattie Nesbitt—his closest and dearest friends—were never heard to say anything but good of the man, and they stood by him through good and evil report.

It would be marvellous if a man of his many-sided and strenuous life could pass through life without making enemies. That these enemies were produced through misrepresentation of his undoubtedly good qualities of heart and mind can verily be attested.

He had the true scientific bent of mind, and had he elected to have left politics alone, would assuredly have made a mark for himself in scientific medicine. Politics, however, was his daily meat and drink. In this respect it might be said of him he was to

the manner born. His creative genius was predominant and masterful. It was largely to this that jealousy was engendered within and without, and so kept him from coming to his own; for Dr. Nesbitt was deserving of greater preferment, in a political sense, than ever came to him.

To his sorrowing family the DOMINION MEDICAL MONTHLY tenders its sincerest sympathy.

Typhoid Fever in Toronto and Elsewhere is ever an absorbing theme. In the Editorial Notes in this issue are given some very interesting and instructing facts and studies with regard to typhoid fever transmission in various ways.

Several years ago it was pointed out in these pages that the tendency of the profession was too strongly towards placing typhoid fever as a purely water-borne disease, and that not enough attention was given to contact cases, imports, and food supplies.

There is abundant evidence now to almost risk the assertion that water-borne typhoid, except in certain times, is probably one of the least factors in the transmission of the disease. Indeed, so far as Toronto was concerned in 1912, it is the belief of our medical officer of health that the water was not a factor at all.

Two or three things seem clear: More attention will have to be given to rural sanitation; still better inspection in securing a safe milk supply; and a more strenuous fly campaign.

The seasonal incidence of the disease would warrant the best possible efforts being put forth in these three directions.

One might ask: If the water was not responsible for any cases in Toronto in 1912, why filtrate? It is better to be safeguarded in every direction.

To prevent contact cases, isolation and screening of all patients, and the vaccination of all attendants are the predominant measures to be recommended and strictly carried into execution.

About the Medical Council of Canada—We are constantly being asked the requirements under the Canada Medical Act for registration, and when the Act is to come into force; so, for the information of our readers, we may say that the meeting of the Council in Ottawa in November last was largely for purposes of organization. A great many important questions had to be con-

sidered, and by-laws and regulations created, as well as all the arrangements for the holding of examinations.

We understand that an Executive Committee was struck to bring in a comprehensive report at the next meeting. Moreover, it was shown to be necessary to have all such matters laid before the Governor-in-Council, and that they should be passed upon by that tribunal in the form of an order-in-Council before they would have the effect of law. This all required considerable time; so, after three days' session, the Council decided to adjourn and to meet again next June, when it is hoped matters will by then be in such a shape that the new Register can be opened.

Security of Tenure for Medical Officers of Health should receive attention from those in authority to provide for such security. All medical officers of health should be absolutely assured of their positions; and in this country there is no authority better fitted to arrange this assurance than the provincial legislatures.

Ontario guarded the interests of the district officers when the new Public Health Act was enacted a year ago, by appointing these officers and making them responsible to the Chief Medical Officer of Health of the Province. The system should be extended in this regard to include all medical officers of health in those cities where all their time is given over to public health duties.

In some American cities, medical officers of health are appointed on good behavior; others for a stated period of time.

Health officers would be better able to discharge their duties without fear of personal loss were they assured of security of tenure of their offices.

In each province there should be some central authority which would have to sanction dismissal before these first-class public servants could be removed by any local authority.

As the central authority requires the appointment of local medical officers of health, they should be the final authority to concur in any dismissal or otherwise.

Editorial Notes

THE SEVENTEENTH INTERNATIONAL CONGRESS OF MEDICINE

This important Congress meets in London, England, August 6th-12th of this year. There is every evidence that the meeting will be of more than ordinary interest, especially to the profession in Canada, to whom many courtesies have been shown in the selection of the officers of the Congress.

For the benefit of those attending we are able to announce that special transportation arrangements have been made with many of the Atlantic steamship lines, both Canadian and American. In general, it may be said that superior accommodation at the minimum rate is being offered to members of the Congress productive of their cards of membership. So far the Canadian Pacific, Royal, Allan, North German Lloyd and Hamburg-American lines have offered such terms, and we have reason to believe that others will do the same.

Those crossing the Atlantic this summer will assuredly find it to their advantage to go as members of the Congress, and to this end they may obtain blank forms of application for membership by writing to the Secretary of the Canadian Committee, Dr. W. H. B. Aikins, 134 Bloor St. West, Toronto.

Dear Sir,—I am endeavoring to form a party to visit the Seventeenth International Congress of Medicine, to be held in London, England, August 6th to 12th, 1913, and desire to lay before you some of the principal points of the undertaking, in which I am sure you will be interested in behalf of yourself and members of your family.

Having in view the advantage of travelling in a body, in that better accommodation can be obtained from the Steamship Company, it is proposed to engage space for the necessary number on "Royal Edward," sailing from Montreal, July 23rd, due Bristol and London on July 30th, leaving us one week to settle down before the Congress commences.

The Canadian Northern will allot us superior accommodation, either first cabin or intermediate, at special rates, and will arrange to give us special advantages on the voyage in many other ways.

I think the steamers of the Company are too popular and well known to require any minute description; but, in passing, I would say that they were built by the Fairfield Ship Building Company, of Glasgow, one of the most famous yards in Great Britain, and were especially adapted to meet the requirements of the North Atlantic trade.

They have six passenger decks, are propelled by triple screws driven by turbine engines, and have cabins and public apartments unexcelled in style and comfort by any other steamers on the St. Lawrence route.

Under these conditions, I would have no hesitation in saying that a party so travelling would receive the greatest satisfaction, and trust that if you plan to attend the Congress I may have the pleasure of enrolling your name as one of the number.

In addition to the above facilities, we would, of course, have special cars on the railway—Toronto to Montreal—and also on the Great Western Railway, from Bristol to London.

If you wish to have further details, and will drop me a line, I shall be glad to write you more fully, particularly in regard to the Port of Bristol and the surrounding country, which is full of interest, both historical and romantic.

If it would not be convenient for you to go on the date mentioned, by communicating with me, a date can be arranged to suit your convenience, and still enjoy the advantage of the special rate.

Information will also be furnished you, if you so desire, on the route from Bristol to London, and what places of interest may be visited on the way, with time of leaving and arriving of trains, and the coaching and automobile trips that may be taken on the way.

Advance information would also be gladly furnished regarding hotel accommodation in London, and its probable cost.

Before arranging to go by any other route, communicate with the undersigned for terms by the Canadian Northern.

JOHN FERGUSON, M.D.,

264 College Street, Toronto.

16th January, 1913.

HYPOCHLORITE TREATMENT OF WATER SUPPLIES

In connection with the purification of polluted water supplies, evidence goes to show that there is an ever-increasing number of cities employing this disinfecting agent. Terre-Haute, Cedar Rapids, Montreal, Toronto, Nashville, Cincinnati, Danville, Ill., Council Bluffs, Cleveland, Minneapolis, Jersey City, Kansas City, and

Baltimore are among the more important places which are employing it. In all a marked diminution in typhoid cases has followed its introduction. While it is not regarded as a panacea, it has established itself as an effective adjuvant in purification.

TYPHOID FEVER IN LARGE CITIES

In connection with the water situation in Toronto, the following information regarding the deaths per 100,000 of the population in certain large cities of the world will be found instructing and valuable: Berlin, Germany, had, in 1890, a death-rate of 9.1. This has been steadily reduced until, in 1910, it stood at 3.6. In the two decades the largest death-rate was in 1891, when it stood at 10.4, and the lowest in 1902—2.7. Hamburg, 26.2 in 1890; 2.5 in 1910; highest, 34.5 in 1892; lowest in 1910. Vienna, 9.4 in 1890; 4.1 in 1910; highest in 1890; lowest, 2.6, in 1907. Paris, 28.2 in 1890; 6.7 in 1910; highest, 34.6 in 1900; lowest, in 1910. London, 14.8 in 1890; 4.0 in 1910; highest, 17.8 in 1899; lowest, 2.6 in 1904. New York, 21.8 in 1890; 10.9 in 1911; highest, 22.8 in 1891; lowest in 1911. Boston, 34.6 in 1890; 9.1 in 1911; highest in 1890; lowest in 1911. Chicago, 91.6 in 1890; 13.7 in 1910; highest, 173.8 in 1891; lowest, 12.6 in 1909. Washington, 60.6 in 1898; 23.2 in 1910; highest, 79.1 in 1900; lowest in 1910. Philadelphia, 63.6 in 1890; 14.1 in 1911; highest, 74.9 in 1899; lowest in 1911. In Belfast, in 1911, there were only 49 notifications, whereas, not many years ago, they numbered 6,000 in a year.

THE ANTITYPHOID VACCINES

Typhoid fever in large communities in the present day is more to be feared than smallpox. It has been abundantly demonstrated that antityphoid serum or vaccine secures immunity against typhoid.

The Board of Health of the City of New York began, on the first of the year 1913, the inoculation of all persons applying for same through their physicians. The vaccines are furnished free to physicians, or the Health Inspectors perform the operations.

Provincial Boards of Health should consider this wise measure, especially for those in attendance upon cases, or who come into contact with cases. Vaccination should receive the best consideration in stamping out typhoid fever. A striking proof of the effi-

cacy of antityphoid vaccination is that of Avignon, France. In 1912 there was an epidemic of water-borne origin. The population of Avignon numbers 49,000. While but 644 cases of typhoid were reported, with 64 deaths, Dr. H. Vincent told the Académie of Médecine, Paris, there must have been 1,500 cases. In the garrison of the town there were 2,053 men. Of these, 1,366 were inoculated with a polyvalent antityphoid vaccine. There were no untoward effects. Among the unvaccinated soldiers, numbering 687, 155 cases of typhoid fever developed, with 21 deaths; in the vaccinated, not a single case developed.

TYPHOID FEVER IN TORONTO AND CLEVELAND COMPARED

As conditions in regard to water supply, sewage disposal, situation, etc., have been said to be somewhat similar in Cleveland and Toronto, a comparison of the typhoid fever incidence in the two may prove interesting at the present time. The population of Cleveland is 560,000; Mayor Hocken's estimate of Toronto, 470,000.

Since Cleveland installed a new four-mile intake in 1904 the average typhoid fever death rate has been 16.3 per 100,000 population. Before that time, with a mile-and-a-quarter intake, two-thirds of the typhoid came from the water supply. Under present conditions, it is estimated 10 per cent. is due to water, 30 per cent. to insanitary conditions and transmission by flies, 10 per cent. to cases contracted out of the city, 5 per cent. to milk, and other raw foods, 45 per cent. contact cases, apportioned as indirectly caused by the other sources of infection.

Requesting for publication the total number of cases of typhoid and deaths from this cause in Toronto in 1912, and a categorical answer to the other five questions as assumed above, Dr. Hastings, the M.O.H., Toronto, has given the following: "1—304; 2—total 52, at least 17.3 per cent. contracted outside; 3—From evidence obtained as to cases contracted from outside sources, on holidays, by contact, and from milk, and from the good quality of the city water throughout the year, I doubt whether any cases actually were derived from city water; 4—Fifteen cases to one dairy—four cases directly to one woman alone, and many duplicate cases in same houses 2—4 weeks after first case. Several localized small outbreaks, probably due to flies or other local cause; 5—Thirty-four per cent. (many contacts with these); 6—Could not give this with any degree of accuracy this year; 7—Fifteen cases to one dairy

traced back to farm; others suspected, but no proof; very difficult to trace." (This last refers to milk-borne typhoid.—Ed.)

Before Cleveland extended its intake four miles into Lake Erie, in 1904, the death-rate varied from a minimum of 23 to a maximum of 99 per 100,000 population. Owing to an epidemic in 1903, it was 114.

A chlorinating plant was established in Cleveland in September, 1911, but the city has no filtration plant. A comparison with other American cities of 100,000 population and over, which have systems of water filtration, shows that only five have a lower typhoid death-rate than Cleveland.

IS RURAL TYPHOID THE CAUSE OF CITY TYPHOID?

Dr. Charles Frederick Bolduan, assistant to the General Medical Officer, New York, has recently been making a study of typhoid fever in New York City. His studies are embodied in a paper on "The Rural Origin of Much of the Typhoid Fever in Large Cities, and the Need of Reorganizing Rural Public Health Administration. This paper is published in the January issue of *The American Practitioner*. Dr. Bolduan considers that a very large part of the typhoid infections in large cities is chargeable to infection from without, and whilst considerable progress has been made in reducing the death-rate from typhoid through improving water supplies, proper methods of sewage disposal and improved quality of the milk supply, that American cities cannot hope to accomplish much more in the way of reduction to the level of European cities until better methods of public health administration are established in rural districts.

From the years 1900 to 1911, the Greater City of New York has had 42,168 cases of typhoid fever, with 7,755 deaths. The old City of New York is supplied with Croton water, drawn from impounded streams draining an area of 360 square miles. Typhoid bacilli have never been found in this water, but colon bacilli quite commonly.

The Borough of Brooklyn is supplied almost wholly with deep well water, and has higher typhoid rates than Manhattan; but Brooklyn in some parts is inferior in sanitary conditions.

The more New York's typhoid infections are studied, milk has been found the vehicle of infection—and it is well known milk affords an excellent medium, under summer temperature conditions especially, for the growth of typhoid bacilli.

Another common cause is the infection of the patient while out of town, and about 25 per cent. of New York's cases of typhoid fever have this origin. So that if milk infection is added to out-of-town infection, one-half of the city's typhoid is of rural origin.

New York has seen one case of typhoid fever on a dairy farm give rise to over three hundred cases in that city.

New York City, according to E. J. Lederle (*Medical Record*, Dec. 14, 1912), is a most conspicuous example of a municipality undertaking practically the entire supervision of its own milk supply all the way from the cow to the consumer. Of the 45,000 farms on which New York's milk supply is produced, nearly all are located outside the city limits, and more than 6,000 outside the State of New York. These farms are in six different States, namely, New York, New Jersey, Pennsylvania, Connecticut, Vermont and Massachusetts, and some cream is received from Ohio and Canada. Its daily milk supply is 2,500,000 quarts, and it is estimated that 127,000 persons are engaged daily in handling it. On the basis of the relative frequency of typhoid bacillus "carriers" in the population of New York City, there may be perhaps a hundred such persons included in this army of milk-handlers.

THE EPIDEMIOLOGY OF TYPHOID FEVER

Mr. Theodore Horton, Chief Engineer, State Department of Health, New York State, writes in the *New York State Journal of Medicine* on the above subject. The address was from an engineer to a body of medical men. Epidemiology is associated indirectly with four professions, namely, medicine, biology, chemistry and sanitary engineering.

In investigating an outbreak of typhoid fever at any given point one requires to know the extent of the disease and whether it is epidemic and how serious. To answer these questions one must make comparison of the supposed epidemic with the known rates of other municipalities under normal and epidemic conditions.

The seasonal distribution is divided as follows: one for the months of December to March, two for April to July, three for August to November.

The mortality rate is computed per 100,000 population for the entire year, by using a lethality of 10 per cent.

By these means one can judge whether the disease is normal, unduly prevalent or epidemic, and how urgent must measures be for its prevention.

The second step is a study of the source or exciting cause, and for this there must be two essential pieces of information, a map or plan of the afflicted district, with all known cases and dates of onset. The other is a chart, showing essential facts in connection with all cases, such as names in order of occurrence, age, sex, dates of onset, residence prior to illness, sources of water, milk, ice supply, the eating of shell fish and other uncooked foods, sanitary condition of premises, screening of doors and windows, general cleanliness, etc. Also measures in prophylaxis and disinfection.

Upon careful study of all this information, if due to water supply, there will be a uniform distribution over the entire map and by a gradual increase in the number of cases. If the rise is in winter the evidence will strongly point towards the water. If well water, the cases will manifest themselves in clusters. If due to milk, the milk route will be ascertained, and if slowly progressive have in mind a "carrier" at the dairy.

There is a chain-like sequence of the cases in secondary infection which requires the closest scrutiny.

The practising physician is the one man who can materially aid by promptly reporting all cases of communicable diseases.

FLY-BORNE TYPHOID FEVER

According to Dr. C. E. Terry, City Health Officer of Jacksonville, Florida, water in that city is completely eliminated as a factor in typhoid fever. Jacksonville is supplied with artesian well water, from wells of an average depth of 1,000 feet.

Since January, 1910, milk, too, as a factor could be eliminated, as only three cases traced to this source occurred in the spring of 1912. With the two main factors removed, some other common condition had to be sought to account for the undue prevalence of the disease.

The conditions existent—8,500 privies—favored fly transmission, as not one was properly protected against flies.

In August, 1910, all privies were ordered screened or made fly-proof. To avoid contact cases, the sick room was also screened. In 1911 the cases numbered 158, against 329 in 1910.

Of the 158 cases in 1911, 88, or 55 per cent., were imported from surrounding rural districts.

TYPHOID FEVER AT OTTAWA

To have about fifteen hundred cases of typhoid fever in one year is a serious matter for any city, more especially when that city is situated in a country which is inviting emigrants to go to it, with the promise that all the surroundings and conditions tend towards health and prosperity. Such a record, however, is held by Ottawa, in Canada, and the public authorities have had a year of anxiety and trouble. They have sought the aid of the scientists and bacteriologists of Canada to help find the source of infection, with the result that these have fixed it upon the water supply. To add to their troubles, many inhabitants have brought actions against the corporation, claiming damages for all manner of supposed and real sufferings, some even going so far as to claim for the cost of fuel which they have used for boiling the water to render it safe for drinking purposes. This may be playing rather low, but the purpose has been attained, in that those responsible have resolved upon a drastic measure in order to try and stop the epidemic. According to a telegram from Toronto, from the correspondent of the *Daily Chronicle*, the Dominion Government has determined to invite Dr. Houston, Director of Water Examination for the Metropolitan Water Board, to visit Ottawa, and examine the water and means of supply. He is also to have power to submit plans for such reorganization as may be deemed necessary to secure immunity in the future. Dr. Houston is well qualified to carry out such a task. His long experience with the variations of London water places him in a unique position. Apart from this, he has acted as bacteriologist to the Royal Commission on Sewage Disposal, and formed one of the International Commission of Experts appointed in 1907 to inquire into the water supply of Cairo, and he is the author of many valuable reports on water pollution as found in different parts of this country. We congratulate Dr. Houston upon this latest compliment to his exceptional abilities and talents.

—*The Sanitary Record.*

News Items

Dr. H. D. Hamilton has returned to Montreal after a visit abroad.

Dr. William Oldright, Toronto, is spending the winter in the West Indies.

Congratulations are due the *Western Canada Medical Journal*, which is celebrating its seventh anniversary.

Dr. Bapty, Victoria, B.C., is acting head of the Department of Public Health during the absence of Dr. C. J. Fagan.

Dr. Ramon Guiteras, New York, delivered an address before the Academy of Medicine, Toronto, on the 4th of February.

Dr. C. J. Fagan, Health Officer of British Columbia, expects to return shortly from the south of France, where he has been recuperating his health.

The new hospital at New Westminster, B.C., is well under way. The total cost of the building is to be \$250,000. There will be accommodation for 128 public ward patients, 18 semi-private, 24 private, 2 wards for children, and 26 rooms for staff.

The Royal Jubilee Hospital, Victoria, B.C., is to be reconstructed and the citizens have raised \$110,000 for the purpose. The city is to give \$200,000, and efforts will be made to get the Government to bring the total amount up to a half million.

“The Bruchesi Institute of Montreal,” named in honor of His Eminence the Archbishop of Quebec (Bruchesi), at its annual meeting the other day made Dr. S. Adolphus Knopf of New York City, Honorary President of the Medical Board. The present director of the Bruchesi Institute is Dr. Eugene Grenier, a former pupil of Dr. Knopf. The Bruchesi Institute is doing a magnificent work among the French-Canadian tuberculous population. Besides taking care of a great number of ambulant cases in a splendidly equipped dis-

pensary, it has a fine preventorium at some distance from Montreal and does a great deal of educational propaganda among children and adults by popular lectures and social workers.

Dr. Charles E. Treble (Radiographer, Grace Hospital) begs to announce that he has installed a modern X-Ray equipment, and is now prepared to undertake private work at his own office, cor. College St. and Palmerston Blvd. Consultation by appointment. Telephone College 4842.

The 1913 programme for winter lectures of the Branch Association Militia Medical Officers (Second Division), Toronto, will be held in the lecture room of the Canadian Military Institute at 8.15 p.m. Order of Dress, Mufti. Refreshments will be provided after lecture by the A. M. C. Mess.

Jan. 29, '13—The Medical Service at Magersfontein. Lt.-Col. J. A. Grant, A.D., M.S., 2nd Division.

Discussed by Lt.-Col. J. T. Fotheringham, D.A.D.M.S., 2nd Division, and Major Wallace Scott, Acting M.O. i/c, Stanley Barracks.

Feb. 6, '13—The Infantry Division in Attack. Lt.-Col. A. H. Macdonell, D.S.O., A.A.G., 1st Division.

Discussion opened by Major G. A. Winters, No. X. Field Ambulance, and Capt. G. R. Philp, No. XIII, Cav. Field Ambulance.

Feb. 13, '13—Transport and Supply, and their relation to the Medical Service in the Field. Major J. A. Shaw, O.C. No. 12 Co., C.A.S.C.

Discussion opened by Capt. T. A. E. World, No. X. Field Ambulance, and Capt. W. H. Fox, No. XI. Field Ambulance.

Feb. 20, '13—Annual Mess Dinner.

Publishers' Department

SAFETY RAZOR BLADE SCALPEL.—*The Journal of the American Medical Association* publishes a short article by Dr. J. B. Murphy, of Chicago, containing a suggestion for using safety razor blades as scalpels. The ordinary scalpel is often found to be dull and, even if sharp at first, the edge is affected by a few strokes in resistant tissues such as old scars. Dr. Murphy has therefore devised handles to hold the two types of razor blade generally met with—the double-edged like the Gillette pattern, or the single-edged such as the Autostrop—and states that he has used them in all his work for some time past and found them satisfactory. This invention solves the ever present problem of what we shall do with our old blades, or at least transfers the burden of its solution to the shoulders of others.

BE A PLUMBER.—In choosing a profession, der most lucrative—law, medicine or der ministry—is plumbing. In der first place, der brofession of plumbing is a pipe. Sometimes it is a cluster of pipes or a einch, to speag plain oudt. All you haf got to know in order to be a graduate plumber is to haf enough sense to gather your kit of tools and go vare someding is leaking or stobbed up. After your tools haf done der vork for you, you send in your bill or take a mortgage on der broperty, wieh is der same t'ing. After taking a first mortgage on der house, you vait patiently for der next leak, und den der house pecomes yours. Any conservative plumber vot ain't too greedy kin own any broperty on two leaks of der pipe und vun catarrh of der spigot. In fact der only difference between a plumber und a highwayman is dot der plumber ain't afraid to use his lead pipe on der premises. Vat is der use of studying four years at scollege to learn to earn a modest lifing ven you kin git \$20 for take a frozen fish out of a water pipe. Furthermore, a plumber takes a squint under a sink and charges \$10, but a physieian has to look at you ten times to make dot amount. A plumber kin make more money wiping a single joint den a doctor kin setting two joints or a minister condemning four joints, or a bolice department raiding six joints. In plumbing der ideals might not pe so high, but employment in der cellar is steadier.—*Exchange.*

THE SPHYGMOMANOMETER is an instrument of recent invention for measuring the blood pressure. The name is derived from *sphygmos*, the pulse; *manos*, thin, rare; and *meter*, a measure. The manometer had been in use for some time as an instrument for measuring the tension of gases and vapors, and was readily adapted to testing blood pressure by adding a rubber bulb and a cuff with rubber bag attached on the inside. This is placed over the brachial artery, above the elbow, and when the pressure through the rubber bulb has shut off the artery so the pulse cannot be felt at the wrist, the reading in the graded scale at the height of the column of mercury indicates the bloodpressure. The normal blood pressure is 125 millimeters. In hardening of the arteries, and accompanying heart and kidney complications, the blood pressure is an important symptom to be studied. Several of the large life insurance companies require the blood pressure to be taken in applications for large amounts. One company requires it in all applicants without regard to age or amount. This company claims to have saved \$50,000 in losses the first year in which they required the use of the sphygmomanometer. They followed the history of cases rejected on account of high blood pressure only, and found several who died within the year of apoplexy.—*Scientific American*.

POLE FINDERS ITS PATRONS.—Hotel Powhatan, Washington, D.C. has names of Peary and Amundsen on its register. A patronage extending from the north to the south pole is a distinction to which few hotels aspire, yet such is the claim in which Clifford M. Lewis, Manager of the Hotel Powhatan takes great pride. Although the Powhatan has been open but three months the pages of its register show the names of Rear Admiral R. E. Peary, discoverer of the north pole, and Capt. Amundsen, discoverer of the south pole, and as if to cement the two in their expression of approval, is found the name of Col. George Goethals, builder of the Panama Canal. Many names of persons of social prominence also appear on the register of this—Washington's newest hotel.

The modification of cows' milk for infant feeding is necessary in order to decrease the casein content which is **twice** what the child can assimilate. To accomplish this the milk is diluted with water. An attempt is then made to restore the other milk solids which have

been diluted along with the casein—the lactose by the addition of commercial milk sugar, the ash by the addition of lime water, the fat by the addition of cream. But there is no way of increasing the milk albumen, already deficient by a half in the milk, and further decreased by the dilution, and the most valuable and easily assimilated protein is present to the extent of less than one-quarter of the needed amount. Modified Milk Powder (C. M. P.) overcomes this difficulty. The modification is made with whey, not water; the milk albumen content is correct; natural milk salts take the place of lime water; natural lactose takes the place of the refined sugar of milk. The result is a food which absolutely does all that the mother's milk will do. Free samples upon request, Mail Bldg., Toronto.

POST-GRIPPAL ASTHENIA.—Of all the acute infections to which human flesh is heir, none seems to be followed by such general prostration as La Grippe. As the Irishman aptly described it, it is “the disaise that keeps ye sick for a month after ye get well.” The general devitalization that ensues after the subsidence of the acute symptoms appears to be entirely out of proportion to the severity of the original attack. It is therefore distinctly the part of clinical wisdom to inaugurate a vigorous reconstructive campaign as soon as the febrile movement subsides. Plenty of fresh air, an abundance of nutritious but easily digestible food, and regular doses of Pepto-Mangan (Gude) constitute a trio of therapeutic measures of marked benefit. If the heart action is unduly weak, or if the prostration is more than usually pronounced, an appropriate dose of strychnia added to the Pepto-Mangan is of considerable additional service.

FEVER FOOD.—An invaluable food for tropical and other fevers; composed of Essence of Beef, with cream and yolk of egg, and containing the nutritive and stimulating properties of Brand's Essence, with the caseine of milk. The albumen of the egg combines in itself all that is necessary to successfully combat the fevers and feverish symptoms, so common and dangerous to all who live and travel in tropical climates, and where cream and eggs are difficult and often impossible to obtain.

Have been strongly recommended by medical men for use in all cases of fever, as well in England and temperate climes as in those more especially thought of when preparing this food.