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EDITORIAL

DR. T. G. RODDICK.

No one medical man in Canada has done more for the unification of the medical profession of this country than Dr. Roddick. Many can recall the futile efforts and discussions that took place in an effort to secure some measure of reciprocity between the several provinces. These efforts brought forth but little visible fruit, and yet they were educative.

Dr. T. G. Roddick represented one of the Montreal seats in the House of Commons. He was on the opposition side of the House, and Sir Wilfrid Laurier was Premier. When Dr. Roddick introduced his bill Sir Wilfrid extended to it his hearty co-operation and made an earnest appeal to the House to support the measure. The Act became law in 1902. There were many difficulties still to be met. There was a clause in the bill that each province must approve of it, and here came in the trouble.

There arose many divergent views as to the working of the Act, and therefore the provincial consents were not forthcoming. It was at this juncture that Dr. Roddick did his best work. For a number of years he travelled from coast to coast attending medical conventions and urging upon the members of the profession to come to an understanding. He urged colleges to set forth their difficulties with the Act in order that these might be met. In due course, all the difficulties were got out of the way and a new bill was drawn up that was acceptable to all interests and each province. This bill was placed in the hands of Dr. Black, of Hants, N.S., who carried it through the House three years ago. It will be remembered that Dr. Roddick was not a member of Parliament at that period.

The several provinces have accepted the terms of the Canada Medical Act, and so it is the law. In a short time the delegates from the provinces shall meet and organize the Dominion Medical Council.

The Canadian Medical Association at its recent meeting passed a resolution making Dr. Roddick for life Honorary President of the Association. We congratulate Dr. Roddick on this well earned honor. So we can say of him:

“I’ve scanned the actions of his daily life
And nothing meets mine eyes but deeds of honor.”

TWO IMPORTANT RESOLUTIONS.

At the recent meeting of the Canadian Public Health Association two very important resolutions were adopted. One of these reiterated the need for a department of health at Ottawa, and the other was that it be made illegal to put raw sewage into streams or lakes. If the association had done nothing else, it would not have met in vain. These two questions will not down and must receive attention at the hands of those who are charged by the people with the grave responsibility of making the laws for the people.

A Federal department of health is an absolute necessity. We have shown on former occasions that the money loss to Canada by preventable diseases and sickness is annually about \$125,000,000. If a department of health could lessen this by one-fifth, and this would be no great achievement, it would amply justify its existence. A gift of \$25,000,000 annually to the people of Canada would be no small matter.

With regard to pouring raw sewage into rivers and lakes no words are too strong in condemnation of it. Apart from the danger, the thought of it is disgusting beyond measure. But a few examples will prove very conclusively the need for a radical change of front in this whole matter. See the following figures:

To see just what the typhoid death rate of Niagara Falls means it is well to compare it with that of other cities. The typhoid death rate in cities of the world over 100,000 in 1908 was: London, 5; Edinburgh, 2; Paris, 8; Copenhagen, 7; Stockholm, 1; Christiania, 2; Berlin, 4; New York, 12.3; Chicago, 15.3; St. Louis, 15.3; Cleveland, 12.6; Rochester, 11.9; Syracuse, 15.4. Along the boundary waters the death rate of Oswego was 49.8; Ogdensburg, 48.5; North Tonawanda, 34.1; Tonawanda, 31.5; Rome, 21.7; Buffalo, 27; Niagara Falls, 129.1, was the average death rate for the 10 years from 1898 to 1908. The typhoid death rate of Niagara Falls in 1906 was 184.4, and in 1907, 222.4.

No words could be more eloquent than these figures. If any person put sewage into his neighbor's well he would be regarded as a much worse type of man than the one who sowed tares in his neighbor's wheat.

But the people as a community put sewage into their common well and think nothing of it. Just because the well is a large one and it is a convenient way to get rid of the sewage, or avoid the expense of a better plan, they keep on doing this.

The citizen has as good a reason to complain against the action of the community in such a matter as he has to complain against the action of an individual who might pollute his well.

NEW ASYLUM METHODS.

It cannot be denied that the older system whereby several hundred persons were housed together and allowed to walk about in the adjoining grounds had the one feature about it of removing these people from the general community. But it could not be regarded as a final disposition of the question.

Many of those who are placed in an asylum are able to do useful work if they are directed in their efforts. That they should be given the opportunity of earning their living and comply with the old marching order of life, dating back to the days of Eden, is a correct theory to work on.

Asylums should have large areas of land on which the inmates could be put to work. They are thus given healthy employment and made to produce much or all of the cost of their maintenance. This is good for the insane and proper economics for the toiling masses on whose shoulders must fall the cost of maintaining these institutions. We have cited on a former occasion the excellent work that is being done at the Craig Epileptic Colony in the State of New York.

This method should be adopted in prison life as well. It is not proper that the toiler should be taxed to feed, clothe and house the inmates of the penitentiaries when these inmates could be made to do this for themselves. Progress is being made and Ontario is taking the lead in the good work.

THE FUTURE OF MEDICINE.

It will not do for the medical profession to fold its arms and imagine that all is peace when there is no peace. There is a great deal of medical knowledge that has become common property with people in general, and a fair percentage of these wish to make use of their knowledge as a means of gain.

A certain hospital has a standard formulæ for a tonic. This comes

to be known to some one and he takes upon himself to prepare it in quantity and advertise it as a cure for many ailments. The people buy it and the press is interested in the venture to the extent of the advertising money paid. When an attempt is made to regulate this sort of thing the press shout "hands off!"

In the growth of medical and surgical opinion, it becomes known that the employment of rubbing and various manipulations are helpful in the treatment of certain diseases. Seizing this thought certain persons go into the business of rubbing and call themselves "bone setters," "followers of Ling," "osteopaths," "chiropractors," etc. They go on doing this for a long time and then claim a right to keep on as they have now a "vested right." Some one with an eye to the "main chance" starts "a college" to teach this sort of thing, and thereafter the story of Hamermann is repeated.

Recent meetings of the osteopaths, chiropractors and optometrists show that these sub-groups of the healers of men are now beginning to feel their strength and are going to renew their efforts, or make new efforts for legislation that will give them a legal standing in the eyes of the community; or, in other words, put the "great seal" of approval on their methods of converting "a part" into "the whole." The thing that Euclid found long ago impossible these people have solved, and so we can have a "bone doctor," an "eye doctor," and a "nerve placing doctor" as sub-sections of the science of medicine without these people having learned that science.

It is necessary for the medical profession to be alert. These innovations mean much, both to the profession and the people. The medical men of Canada can no longer afford to sit with folded arms and "take what fate may send them."

In Britain there has been a storm over the terms of the "National Insurance Bill." Did the medical men of Britain ever stop to think that they are mainly to blame for the small compensation allowed them in the bill for attendance on the poor. For many years doctors had been bidding against each other for the practice of attending the members of societies. When evidence was taken by the government, these societies showed what doctors had been willing to receive, and this went a long way to fix the allowance.

There is a fable that long ago the frogs asked for a king. Their first two requests brought them kings they did not care for and the third request brought them one that devoured them. The doctors had been bidding against each other until they put themselves under the control of "King Society," and now that "king" threatens to devour them, and the next may be to nationalize the medical professional or make it a great civil service department.

On this subject the Journal of the Canadian Medical Association has a timely and able editorial. The question of whither is the medical profession drifting is a very important one and cannot have too much attention, nor at too early a date.

Fate steals along with silent tread,
 Found oftenest in what least we dread;
 Frowns in the storm with angry brow,
 But in the sunshine strikes the blow.

THE CANADIAN HEALTH ASSOCIATION.

This association has held its annual meeting and adjourned. In this respect, like all that has gone before it, it has now passed into history, but not a dead past. This is one of our youngest associations, and has already shown an amount of activity that has distanced its older brothers. Why?

There are several reasons. In the first place its membership is not confined to the medical profession. It admits to its membership public-spirited men and women of all ranks in society. This is as it ought to be. Ladies and gentlemen in many walks of life can do much for their fellows in the great game of uplifting humanity. They can contribute of their time, their intellects, their moral qualities and their means. This is a great force to associate with that of the medical profession which gives the whole a scientific turn.

Then the work outlined by this association is of a more general and popular character than that of a regular medical society. The work is wider. It deals with the prevention of disease, an ever interesting theme, and it also takes into consideration many topics of a social and semi-economic nature. In something of everything that pertains to the physical, social, mental and moral well-being of the people, lies its work.

We congratulate the association on the result of its recent Toronto meeting. Its proceedings received wide publicity through the medium of the press. This has an educative influence of much value. It is raising public opinion up to that point that makes it easy for the legislator to come in and act. When any government finds that there is a solid public sentiment for any measure it will not be slow in meeting that demand. It is in public life as in business, when there is a demand there will not be lacking the desire to fill that demand.

So soon as the public finds that it is much cheaper, as it certainly is much pleasanter, to prevent disease than to cure it, there is good hope that something substantial will be done. It matters nothing if a Federal department of health cost say \$100,000, if it prevented a good deal

of the disease now existing. . The return would far more than offset the outlay. We recall the words of Thomson:

Ah! what avail the largest gifts of heaven
 When drooping health and spirits go amiss?
 How tasteless then whatever can be given!
 Health is the vital principle of bliss.

QUALIFICATIONS FOR PRACTICE IN CANADA.

The standards vary in the different provinces somewhat, though the requirements in all are now creditably high. The Canada Medical Act, which will soon come into operation, will make it possible for a student to secure a diploma that will admit him to practice in any province. It is more than likely this will become the favorite route of entry into the actual life of the practice of medicine, as few will take a merely local examination when they may choose one that gives a national standing.

Quebec.—The Provincial Medical Board keeps a register in which it enters those who hold a degree from a university in the province. It has power also to admit those who hold a British qualification obtained after five years of study. Head office in Montreal.

Nova Scotia.—The Provincial Medical Board registers medical graduates from the Medical College in Halifax. It also admits those who are on the British register on proof of identity. The head office is in Halifax.

Prince Edward Island.—The government of medical practice in Prince Edward Island is in the hands of a council selected by the Medical Society of the Island. British licentiates are admitted. The head office is at Charlottetown.

The right to practice in Ontario is granted by the Medical Council. It accepts the primary and intermediate examinations of the universities of the province and holds a final examination. The term is one of five years. It has power to admit a practitioner in good standing in Britain, but the working rule has been that the applicant from Britain should have been in practice for five years and then pass the intermediate and final examinations. The head office is in Toronto.

British Columbia.—Medical qualification is in the hands of a Medical Council. British practitioners registered prior to 1887 are admitted on payment of the fee; all registered since that date, and all coming from other provinces, are required to pass an examination on anatomy, chemistry and the final subjects. The head office is in Victoria.

Manitoba.—The Medical Council admits to the register graduates of the University of Manitoba and those who are registered in Britain. Those coming from other provinces pass an examination. The head office is in Winnipeg.

Alberta.—A Medical Council governs medical registration. Those wishing to register from any province or from Britain must submit their qualifications and pass an examination on surgery, medicine and obstetrics. Canadian universities are accepted. The head office is at Edmonton.

Saskatchewan.—The same as in Alberta. The head office is in Regina.

New Brunswick.—The Medical Council of New Brunswick admits Canadian graduates to the register, if the preliminary examination was a university one containing Latin. It admits those registered in Great Britain. Head office, St. John.

SEVENTEENTH INTERNATIONAL CONGRESS OF MEDICINE.

This Congress will be held in London, August 6th to 12th, 1913. The officers are as follows:—

President—Sir Thomas Barlow, Bart., K.C.V.O., LL.D., M.D., President R.C.P., F.R.S.

Vice-Presidents—Sir Jonathan Hutchinson, LL.D., F.R.C.S., F.R.S.; Sir W. S. Church, Bart, K.C.B. LL.D., M.D., F.R.C.P.; Prof. Rickman J. Godlee, M.S., F.R.C.S.; Prof. James Little, LL.D., F.R.C.P.I.; Prof. Sir William Macewen, LL.D., F.F.P.S., F.R.C.S., F.R.S.; Sir Henry Morris, Bart., F.R.C.S.; Sir R. Douglas Powell, Bart., K.C.V.O., LL.D., M.D., F.R.C.P.; Sir Frederick Trevers, Bart., G.C.V.O., C.B., LL.D., F.R.C.S.; Sir William Turner, K.C.B., LL.D., D.C.L., F.R.C.S., F.R.S.; Sir Hermann Weber, M.D., F.R.C.P.
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Honorary General Secretary—W. P. Herringham, M.D., F.R.C.P.

CANADIAN REPRESENTATIVES.

Executive Committee—Dr. W. H. B. Aikins, Toronto; Dr. A. McPhedran, Toronto.

Organizing Committee—Dr. George Armstrong, Montreal, President of the Canadian Medical Association; Dr. C. K. Clarke, Dean of the Medical Faculty, University of Toronto; Dr. J. C. Connell, Dean of the Medical Faculty, Queen's University, Kingston; Dr. H. H. Chown, Dean of the Medical Faculty, University of Manitoba, Winnipeg; Dr. E. P. Lachapelle, Dean of the Medical Faculty, Laval University, Montreal; Dr. F. J. Shepherd, Dean of the Medical Faculty, McGill University, Montreal.

ORIGINAL CONTRIBUTIONS

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CASES ILLUSTRATING RATIONAL TREATMENT OF
HYSTERIA WITHOUT MINUTE PSYCHO-
ANALYSIS.*

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BY hysteria, is not signified general emotionalism or nervous excitement, nor will consideration be given to cases of simulation, or querulous psychosis. And, of course, psychasthenia and neurasthenia, as well as lower neurone disorders, will not enter into the discussion.

It is not the form or aspect of the symptom which entitles it to the designation hysterical.

The criterion of hysteria is its genesis; for the methods of psychopathology do not differ from those of somatopathology in seeking an etiological classification.

Babinski has brought order from chaos by limiting the term hysteria to disorders generated by suggestion, and excluding all other disorders from this group. The justification of this classification has been given at length elsewhere, so I shall not discuss it here. I have selected from my records a series of cases which seem best to illustrate how success is to be attained in treating hysteria, for they show how a thorough appreciation of the part played by suggestion in etiology leads to a scientific therapeutics.

In this therapeutics, suggestion plays only an insignificant part; indeed some of the cases illustrate to the failure of suggestion as against the success of enlightenment, rational persuasion and reeducation of the patient's erroneous attitude of mind; these are the means of giving the patient a relief which is likely to be permanent; whereas the crude *legere de main* constituted by most suggestive measures, even if successful in removing a symptom, only accentuate a patient's liability to relapse by further increasing the suggestibility.

For convenience I have divided the cases into three types:

A. Where the causative suggestion is found to originate in some organic disease. This is the commonest type and the most practically important because the hysteria often creates far more functional disability than does the disease which suggests it.

B. Cases in which the causative suggestion was not discovered because of insufficient psychoanalysis; but in which the secondary effects

*Reported to the Washington Medical Society, November 22, 1911.

of the undiscovered suggestion which had become a habit were removed by psychomotor discipline and the tendency to further hurtful suggestions was minimized by psychotherapeutic measures consisting of the readjustment of the patient's point of view. These cases are not uncommon in practice, are rarely cured either by mediate or immediate suggestion, and require a knowledge of psychotherapeutic technique for their successful treatment.

C. Cases of hysterizability whether innate, from family predisposition, or acquired, usually in childhood on account of improper upbringing and lack of education in self-control, and against impulsivity and inattention.

These cases are in want of pedagogical as well as medical assistance but as those who usually come to the doctor do so because their ailment is supposed to be physical, the physician must become pedagogue towards these patients, at least until the false ideas as to their physical states which have arisen from suggestion have been transformed.

It is not necessary to illustrate in detail the mechanism by which suggestion produces symptoms; for that has been done in several preceding communications: *The Genesis of Hysterical Symptoms in Childhood*, *Medical Record*, 1910; *The Function of the Neurologist*, *Medical Record*, 1911; *Hysteria and Pseudo-Hysteria*, *American Journal Medical Sciences*, 1910; *International Clinics*, 1908, III.; *Boston Med. Jour.* 1909, I., etc. Besides, many of the following cases will incidentally reveal the pathogeny of their symptoms.

A. CASES WHERE THE CAUSATIVE SUGGESTION IS FOUND TO ORIGINATE IN SOME ORGANIC DISEASE.

CASE I. *An Incapacitating Hysteria Engrafted upon a Hematomyelia of the Right Hand and Arm Segments.*—A man of 20 years, apprenticed mechanic since the age of 16, was seen with Drs. Conklin and Lewis Taylor in June, 1911. Two years before, he had dived to the bottom of a creek. The concussion which ensued kept him in bed with severe headache and inability to move for three days. Urinary incontinence lasted one day. He vomited at first. For nearly a year, he was unable to walk without severe staggering, and his speech had been very difficult and still remained slow. He complained also of a great sleepiness and difficulty in holding his water; so that he was quite unable to go to work, more especially as the right hand was partly wasted and paralyzed, and he feared that what he knew to be an organic nervous disease might be aggravated by exertion. There was loss of sexual power. The boy was normal with the exception of the following abnormalities:

Reflexes.—The right plantar was absent, but there was inversion

of the foot on stroking the sole. The right triceps was diminished.

Motility.—There was weakness with atrophy of the extensors of the third, fourth and fifth digits of the right hand to an extreme degree. The opposition of the thumb was not quite so weak. The grasp of the hand and flexion of the wrist were relatively stronger. The abduction of the wrist was strong, the adduction of the fingers was quite weak. There was no other distinguishable weakness of the forearm.

Sensibility.—He complained of a perpetual tingling down the right leg, which occurred with each beat of the heart, night and day, except during sleep. But there was no difference on the two sides in the perception of coolness and warmth and the sense of attitudes was now normal, although he stated that for two months he was unable to recognize the position of his limbs. But I could not satisfy myself that he really felt less intensely, as he alleged, on the right leg when stimulated by the tuning fork and the point of a pin; so that this hypoaesthesia might have been suggested during my examination. A suspicion of its psychogenic nature was corroborated when I found that although he declared he would sway when he closed his eyes, he did not actually do so when his balance was deprived of the assistance of his vision while I pretended to be examining his eyes.

Diagnosis and Prognosis.—The abnormalities of the reflexes, motility and subjective sensibility, as well as the slow speech and difficult retention are due to organic changes, very probably, hæmatomylic resulting from the blow on the head in diving. They are not amenable to treatment but they are by no means incapacitating; for even the grasp of the right hand was fair and the right thumb could be opposed so that he could handle a tool. The prognosis as to efficiency was therefore good.

Treatment.—Accordingly, the organic nature of part of his difficulty was explained to him; he was also told that the disease was not progressive, and would not be exaggerated by work, which would, on the contrary, improve him in every way, and very likely rid him of his heavy feelings. I recommended him, therefore, to begin work, and behave as if he were quite as well. This he did, with the result that he continues at work, and is in excellent condition at the time of writing, six months later.

No commentary should be needed to show that this boy's idleness proceeded not from actual disability but from the ideas which he and his people held regarding his condition. He was the victim of a false fixed idea that he was gravely ill, and this suggestion was the cause of his incapacity when I saw him, while the organic destruction of the central nervous system had at that time no direct significance in that respect.

CASE II. *Hysterical Neuralgia Relapsing Obstinateley After Suggestive Treatment.*—A man of 78 years was referred by Dr. Sterling Ruffin on account of intractable neuralgia in the right side of the head and neck. It was said to occur paroxysmally after swallowing or eating and to be relieved by pushing the thumb into the neck below the ear and pressing with the fingers along the zygoma and temple. Two years before he was upset from a mowing machine on to his head and rendered unconscious for an hour and a half. In consequence, he had to remain nine weeks in the hospital in great pain, and was speechless for seven. Speech had suddenly returned. He has had pain ever since, except for three months, during which Dr. Wells removed it by intrapharyngeal medication.

On examination, no abnormalities were found; but the patient complained of great tenderness on the right side half way up to the vertex, especially along the temporal artery. This sometimes reached the parietal eminence. There was also tenderness in the neck behind the ear; but I could not satisfy myself that it was confined to the distribution of the posterior auricular nerve. The examination, however, was unsatisfactory, as the patient shrank so violently that I could not exclude an actual neuralgia of peripheral origin, which, however, seemed inconsistent with the history of its removal by medication of the pharynx. Before I had reached a conclusion, the patient ceased attendance, and has been lost trace of. But I include the case as a very probable hysteria induced by bodily injury, and cite it to illustrate the tenacity of a false idea fixed by previous appeal to direct medication by the suggestive influence of which it has been relieved. Nothing is more unfortunate for a patient's future than the suggestive therapeutics which uses as a vehicle some physical agency. This masquerade only intensifies a patient's false belief that his disease is physical, which much increases the difficulty of future treatment. The failure in this case was attributed to my own uncertainty as to the genesis of the condition.

CASE III. A woman of 41 years was seen with Dr. Nichols because of "*severe neuralgia of the left face, left hemiparesis, peculiar dream-like crisis, hysteria and nervous breakdown.*" An osteomyelitis had been present since infancy; she was supposed to have had gall-stones ten years before, since when she had been constipated, until relieved by agar prescribed by Dr. Nichols. The neuralgia had occurred from a chill at a funeral three years ago. It had lately been accompanied by headache on the left side, during which the face burns, actually feeling hotter to the touch. Emesis does not occur, and there is no family history of migraine. Six months before, she had fallen on her right hand in an elevator, and next day the left arm was paralyzed.

Improvement took place after a verdict against the owner of the elevator and direct suggestion. But she constantly wore a leg brace and walked with great difficulty. She was taking many narcotics and possibly a good deal of alcohol. The dream-like attacks were those of typical toxicosis, and I believed were accounted for by the narcotics in which she had indulged. She was tearful, restless, frightened, and at times querulous from the same cause.

Reflexes.—The deep reflexes were exaggerated, the right patellar more than the left. There was a false clonus when the left ankle joint was forcibly flexed.

Motility.—There was no tremor, and the diadokokinesis was good. There was no other motor deficiency except an apparent incapacity of the left arm and leg. In reality, however, the resistance of these was quite good when *she was unaware that I was testing it*; and the unconscious movements she made in bed were performed without any deficiency. I was able to produce a slight improvement in the volitional movements on the left.

Sensibility.—At first, there appeared to be a loss to coolness, touch and vibration stimuli on the left leg; but it was very easy to suggest that she was mistaken, and she then readily both felt and localized these stimuli, except that she still declared that she could not feel vibrations in the lower limbs, especially the left. I could not demonstrate the falsity of her belief in this respect. There was hyperesthesia to the pin; and even sometimes to touch, over the left leg, thigh and face; and she declared that the neuralgic points of Valleix were still more sensitive. The visual fields were apparently restricted towards the left, at the beginning of the examination, but a very little address soon showed that there was no restriction whatever of the form field. The red field seemed limited bilaterally. The only other abnormality found was a deformity of the turbinate bone.

Diagnosis and Prognosis.—Although there was some physical disability from the old osteomyelitis, the condition of the reflexes and the absence of marked muscular atrophy showed that her incapacity was not due to organic disease of the nervous system, which would have caused either marked reflex differences on one side of the body with spastic phenomena and extensor plantar response or would have produced a marked muscular atrophy, with or without loss of sensibility quite different in type from that found. Besides, the hemiparesis ceased while the patient's attention was distracted, and could be modified by suggestion. It was therefore hysterical, and it was only increased by the leg-brace, which *fortified the patient's faulty notion* regarding her left leg. The so-called hysterical mental state, however, had a quite different source, being in reality toxic, and therefore unamenable to

psychotherapy. The prognosis of this, however, was quite good if the cause was suppressed.

Treatment.—(1) To cease taking drugs, using physical measures to promote rest, sleep and improved nutrition, taking a bland diet. (2) Leave off the leg brace. (3) Reeducate the sensibility of the face and leg. (4) Finally explain the nature and genesis of the condition, and reeducate the patient to a better understanding of herself, and how to prevent a recurrence of her disorder by better planning the somewhat strenuous business life which she led. This Dr. Nichols did, and the sensibility recovered, the paralysis ceased, the dream states no longer occurred, and the patient returned to work a different woman, until alcohol, some months later, produced another breakdown of which I have not the details.

CASE IV. *Hysterical Appendicitis.*—A girl of 20 years was referred by Drs. Watkins and Stavely because of recurrences of right iliac pain, with nausea and vomiting, but normal temperature and pulse, since three months. Two months before, the appendix had been removed for similar symptoms, and was found little changed, though containing a concretion of lime. At that time, the ovaries and gall-bladder were found normal. The pains recurred every few days, and lasted some hours, and were relieved by morphine or the Scotch douche.

She showed only a psychogenic hyperesthesia in the right iliac fossa, controllable by indirect suggestion. Some colonic atonia, a slight retroversion and intestinal sand could not explain a manifestly psychogenic tenderness. So after a few days, Dr. Watkins, armed by conviction derived from the consultation, entered the fray, and after a struggle of nearly two hours convinced the young woman that determination to conquer a longing for the comforting and anodynes which sickness brings would cure her. She went back to Illinois next day, and remains well.

Such rapid success is not common. The following similar case illustrates the need of persistence in persuasion.

CASE V. *Coccygodynic Neurasthenia from Hysteria.*—A girl of 34 years was referred to Dr. Lemon because unbenefited by uterine suspension, amputation of the coccyx and other gynecological measures. She was lying stiffly in bed for fear of hurting the coccyx, with intense right iliac pain and tenderness. I found the latter modifiable by suggestion, as was the stiffness. There was a false, *i.e.*, volitional Kernig's sign, and the reflexes were sluggish. She wore the martyr's smile. She professed anxiety to recover and go to work. The condition was manifestly psychogenetic, but her sister's belief in its organic nature hindered recovery, in spite of the persistency of Dr. Lemon. But at my instigation, he kept persuading, until finally improvement

began; and one day the young woman determined to put it to the proof, went to work, succeeded in the fierce struggle against giving way, and is now more capable than she had ever been before.

Of course the key to each is that the physician have a clear notion of the mechanism of hysterical fixed ideas, of which the idea of pain and tenderness is not the least frequent; and skill in the technique of psychotherapy.

CASE VI. *Hysterical Habit Spasm After Appendicitis*.—A case intermediate as to duration of treatment, was seen in 1911 with Dr. I. S. Stone. She had had a dull pain since an attack of appendicitis six years before but had gone on working in her dairy in spite of it, until it wore her out. After this a spasm of the iliac muscles supervened. She declared herself "nervous because I suffered so intensely." She would start at noises, and could not sleep after excitement, so that she gave up visiting her friends. The only neurological signs were the hyperesthesia and spasmodicity in the right iliac region.

Treatment.—I taught her to inhibit the spasm by drill, and assured her that the hyperesthesia would disappear as a result of the operation which Dr. Stone had performed three weeks before. But as the spasm had become a habit, and gave rise to pain by stretching the muscles, she would have to learn to control it by means of a series of exercises in muscular inhibition which I showed her how to perform. She made quick progress at first, but relapsed on account of a physical depression, which I found to be due to disordered metabolism from the egg and milk diet* which her recumbent position did not enable her to metabolize. When this was removed psychomotor discipline was again persevered with, and she returned home almost well two weeks after I first saw her.

B. CASES IN WHICH THE CAUSATIVE SUGGESTION WAS NOT DISCOVERED BECAUSE OF INSUFFICIENT PSYCHOANALYSIS; BUT IN WHICH THE SECONDARY EFFECTS OF THE UNDISCOVERED SUGGESTION WHICH HAD BECOME A HABIT WERE REMOVED BY PSYCHOMOTOR DISCIPLINE, AND THE TENDENCY TO FURTHER HURTFUL SUGGESTIONS WAS MINIMIZED BY PSYCHOTHERAPEUTIC MEASURES CONSISTING OF THE READJUSTMENT OF THE PATIENT'S POINT OF VIEW.

CASE VII. *Hysterical Hyperesthesia Incapacitating Locomotion*.—A young woman, aged 28 years, whom I saw in the spring of 1911 with Dr. Hardin, to whom she was referred by Dr. Maphis, of Warrenton, Va., in the preceding June, had had a chill, after which she cried. The next day she felt very weak, and the next day she had pain in the knees, she thinks only in the left, with hyperesthesia. There was also, she says, tenderness of the lumbar spine, and later on in the groin and hip. She was treated by massage, and for four months was relieved.

*See Author's Diet in Nervous Disorders, N. Y. Med. Jour., April 6, 1912.

About Christmas time, these pains recurred when her sister visited her. There were then nausea and dull pain in the knees, which was persistent and caused her to groan in her sleep. "Powerful suggestions," by drugs and otherwise, has failed to improve her pain.

Examination was negative, except that there was great hyperesthesia of the patellar region above and below, and there was also hyperesthesia of one arm. Also the right abdominal reflex was absent, and the adductor was exaggerated on the same side. I decided that the case was psychogenic, and that afternoon attempted psychoanalysis to seek the origin of the psychalgia. I found two suggestive incidents, one being the visit of his sister on the second occasion, the other being the fact the when first attacked her brother had a severe hysterical spell. He was a consumptive, and she was in fear of consumption. Another fact that might have had significance was that she had been two weeks in a newspaper office during its change of ownership, and was alone with the man in charge much of the time.

Treatment.—As she could stay in Washington only a short time, I concluded that it would be better to remove the effects of whatever had been the source of the hysterical symptoms by psychomotor discipline than to try to pursue psychoanalysis which might be unfruitful in the short time at her disposal. As the least approach towards the patient's knee would set up a spasm of terror during which abductors, hamstrings and extensors went into spasm, I began a course of gradual habituation, first to the approach of a person's hand towards the knee. Gradually I began manipulation of the patellar region, followed by pressure thereon. I enlisted the assistance of a sister, who attended her in hospital and helped her to accomplish these exercises several times each day. In this way she taught herself in a few days to control the muscles around the knee-joints so as to prevent them contracting when her knee was touched. The pain ceased when the spasm did, as it was in part maintained by the latter. Then her alarm vanished as there was no reason for it; and she was satisfied that her pain lay in her own power to control. The dangers of prepossession by a fear, in conjunction with the mental vacuity engendered by lack of occupation were explained to show the genesis of false fixed ideas regarding disease, and she was told how to avoid them.

She returned to Virginia in a week quite well, and has remained so now for over a year.

CASE VIII. *Barking, Roaring and Bowing Tic Removed in One Day.*—This patient was referred to me by Dr. Thomas Charles Martin. He had been treated for rectal ulcer for some months. He lived in North Carolina, having recently removed there, but not liking North Carolina he wanted to come back to Washington. It is possible that this had

something to do with the development of his condition. I was asked to see him, because when he sat down he would utter a series of barks, while at the same time the trunk would go into spasmodic flexion. On stripping him, there were seen strong abdominal muscles and regular bowing of the whole body along with this barking, grunting noise.

Psychoanalysis showed that these attacks had begun suddenly in North Carolina, at 10 p.m., three months before. The significant fact was that he had eaten some sandwiches which had been sent to him by his parents in Washington, and that he had been thinking despondently before he went to sleep about how nice it would be to be in Washington. He was also thinking considerably about his intestines, having been under treatment, by lavage. However, the exact psychological mechanism was not discovered beyond the few suggestions contained in these discoveries.

Treatment.—I thought it better to remove the effects rather than to necessarily discover the details of the genesis of his tic. So I instituted a course of psychomotor discipline. The tic, which at first had come only when he lay down at night, had later occurred whenever he sat down also, and thus made life a burden. So we began by exercising in the sitting position. I placed him in a large chair, reclining, showed him how deliberately to contract the recti abdominis, and made him perform a series of respiratory movements, as well as the series of recti movements. After a few moments he became capable of contracting either the recti or the diaphragm. That being acquisition enough for one sitting, he was asked to come back the following day. However, he went home and tried the exercise while recumbent at night. The result was that he came back the next morning and said: "Doctor, I am cured. I did not have any spell last night." Two days later, however, he relapsed. But after another discipline, he remains now well.

Thus it is very simple to remove the effects in this rational way. It is so much better than the rough suggestion usually attempted. He had been treated in North Carolina by electricity, which he was assured would remove his spasms. When this failed, he was then treated by direct suggestion. When this failed he was then treated by "the most marvellous remedy known," a drug obtained from some remote country, which was guaranteed to cure, which it did not do. So that the most powerful suggestions failed in a case which was in origin suggested and conformed to Babinski's definition of hysteria, "susceptible of production by suggestion." For a motor habit had been formed, and the removal of all habits requires reeducation of the patient's volition. Indeed, it is only by its action on the will that suggestion does succeed when it does.

- C. CASES OF HYSTERIZABILITY, WHETHER INNATE FROM FAMILY PREDISPOSITION, OR ACQUIRED USUALLY IN CHILDHOOD ON ACCOUNT OF IMPROPER UPBRINGING AND LACK OF EDUCATION IN SELF-CONTROL, AND AGAINST IMPULSIVITY AND INATTENTION.

CASE IX. *Asthenia and Hysterical Hypochondriasis*.—A Swiss motor-man, aged 45 years, was seen with Dr. Randolph at the Garfield Hospital and later referred at the George Washington Hospital. He believed himself very dyspeptic, and was always complaining garrulously of fugitive pains. He had been easily persuaded that his troubles were all notions, but these quickly returned in spite of Dr. Randolph's attempts. He had fully made up his mind to give up work and return to Switzerland.

Examination showed a normal nervous system with the exception of somewhat overactive reflexes. But the heart was easily excited. The blood pressure was 115 and he was 20 pounds below weight.

Diagnosis.—The details would demand much space to set down, but although the question of undue vasor lability presented itself, the vivacity and changeableness of his complaints made it certain that a large part of his trouble at least was psychogenetic, and I resolved to see how much by the therapeutic test.

Treatment.—After putting him in a passive or hypnoidal state, psychotherapeutic impositions were given. These included the taking of a proper full diet instead of the bread and milk one which was all he thought himself capable of digesting. He was also commanded to exercise by gradually increasing walks and gymnastic movements. After a few days of this he was persuaded to leave the hospital, and to do housework for further exercise while his wife was working out. He was also given adrenal substance, two grains per day.

A few days later, he felt better, and volunteered the statement "I am coming to myself." He was sleeping better, but still, as usual, dreamed of the home he had left thirty years ago, and "he saw his folks every night." He was given further exercise and recommended to strengthen himself for return to work by eating, exercising and enjoying. He was told that he would be stronger than ever, that he had become sick by taking improper care and ceasing exercise and by unnecessary worrying. After two weeks of persuasion following two days of hypnoidal suggestion, he returned to work; and in a month he had gained eight pounds and was looking fresh and well, although the pain and indigestion still recurred now and then. The pulse was soft and slow.

Two weeks later he was having flushes and the heart was irritable. I found the systolic blood pressure 130 and the diastolic 77 so I thought it time to reduce the proteins which I had been giving him in large

amounts, and to cease the adrenal. Soon after this he left the position as motor-man and took a place as footman. His good condition and relative satisfaction prove how large a part of his syndrome was psychogenic, for until proper psychotherapeusis was employed, he was in a state of nosophobia which would soon have become chronic. That this was not due to vascular instability was proved by the fact that he recuperated so quickly with proper food and exercise, and that the nosophobia almost ceased while the vasor lability persisted. This case might legitimately be included in the first type I discuss, but for the absence of demonstration that the hysterical ideas actually arose from the vasomotor irregularities. The very marked suggestibility classes him where I have placed him.

CASE X. *Hysterical Phobia in a Child*.—A boy of eight years was seen with Dr. A. R. Tynes, at Staunton, Va., in the autumn of 1911. The preceding May he had developed what his parents called hallucinations, which occurred when he was alone only, for he would go errands and play about if he knew he was insight of anyone at all. There were no night terrors, although he feared going to bed alone, and his mother or father always accompanied him upstairs. Whenever he was alone a spell would occur. The hallucinations were accompanied by a loud cry and a twisting backwards of the neck and contortion of the body. He was very rarely still, wriggling about nearly all the time in an excitable fashion. His father and maternal uncle are declared to have had similar attacks in childhood. But it could not be ascertained that the parents had not spoken of some of these before the boy. The mother was overanxious, hysterical and very uneasy when the boy was out of her sight, of which the boy was well aware.

Examination revealed no physical signs of disease of the nervous or any other system. In anamnesis, I found him a sensible little fellow, and I ascertained that it was a snake which he usually saw, although sometimes a wild beast would be seen. His shout was really the name of the animal he saw. He could not describe the snake except to say its head was like an eel. He remembered well the first such occasion of fright, and the creature then was not a snake but a rooster. He declared that he was never actually afraid of any animals. Indeed, on one occasion, wearing a red sweater, he chased a bull away with stones. On another occasion he went into the cellar to look for the bogey-man. He said that his only fear was that of being whipped by his father when he was naughty, and that of this he was "not very frightened."

I could not, in the short time at my disposal, penetrate the psychogenesis completely. My question soon showed that the hallucinations were not true ones, for when I asked the boy if when he looked around there was really an animal jumping on his shoulders, he had to reply

“no”; and that he never actually saw, heard or felt what he feared. He then spontaneously declared “I reckon my imagination gets away with me.” I then asked him, “Why do you not look around each time you fear the animal behind you?” He said, “It does not give me time to think of it; it comes so quickly sometimes, and I shout and run before I can recover myself.” When asked, however, he said he was not easily startled as a rule.

Diagnosis and Prognosis.—Familiarity with the mechanism of terrors of children enables one to interpret this boy's case as a phobia against being alone, produced by the foolish anxiety of his mother. This affective state was an induced one therefore, produced by the idea of some “dreadful consequences” which might occur to a little boy when not protected by his elders. But the morbid reaction had become a habit, so that even though the initial cause were suppressed, training would be required to overcome the facile inductibility of the terrors. Inhibition of his undue impulsivity should also be undertaken.

Treatment.—Accordingly the following procedures were outlined and the reason for them clearly explained to the boy and his father. Firstly, he must gradually accustom himself to go out alone, first for half a block, then for a whole block, and finally around the corner. While doing this, he could hold himself in hand, his attention fully awake to the need of manly behavior and the importance of recovering from his timidity. Secondly, he must learn to go to sleep without any one else in the room, remembering what a nuisance is a boy who cannot forego keeping one his parents constantly at home in the evening. Thirdly, he was shown exercises in slow movement and mobilization by which he could suppress the wriggling tendencies of his limbs and body. His mother should be dealt with rationally too.

Wishing to obtain more precision as to the psychic mechanism, I wrote to the boy asking him to tell me whether he seemed to be in a dream-like or in an absent condition when the fears assailed him. I also, of course, wished to stimulate the practice of the reeducative procedures I had prescribed. The following replies were made, and I have recently heard from Dr. Tynes that the boy remains well.

“Dear Doctor: I have your letter. I do not see any animals since I saw you. I never did hear or feel them, but used to see them. It is not like a dream. I hope I can soon write you I am well—Your Little Friend.”

“My Dear Doctor: I beg to thank you for your letter of yesterday to John, Jr., and at the same time report favorable progress in his case. He is now going all about the house and yard alone, and has made a couple of trips to the store where I am employed (about seven minutes' walk) alone. He is certainly very much better than he has been since

these spells of fright came upon him. He is getting on well with the exercises that you outlined for him, though he is not yet able to go to sleep alone. However, he goes up to the room alone, turns on the light, undresses, gets in bed, and holds himself together for about ten minutes, but does not seem able to compose himself sufficiently to get to sleep. I am working him up to this as fast as I can, and while I might force him to it at once, I would have to use harsh measures to accomplish it. I am unable to clearly get the idea from him whether after these attacks of fright the animals seem like a dream or an idea. I believe, however, that when he tries to analyze the feeling, that he feels that it was an idea that flashed through his mind at once that these animals were near him, and he knows it was only in his imagination. I am glad to say that he is making a strong effort to get a 'grip' on himself and I believe that he will succeed. I will let you hear from him from time to time, and if at any time I can answer any questions I will be only too glad to do so as clearly as I can."

The Diagnosis of Hysteria.—The mode of treatment of which the cases are examples must be founded upon an accurate diagnosis, more especially where organic or functional disease is present in addition to the hysteria. Indiscriminate use of persuasion, however rational, will bring only discredit to the physician who employs it. The most careful discrimination is required in some cases to differentiate that portion of the syndrome which is psychogenic. (Case III.) And where organic disease of the nervous system is what is simulated, an exact and wide knowledge of neurological signs is essential for a correct diagnosis. (Case I.) For, although hysteria may resemble apparently closely the condition produced by an organic or functional disease, differences always exist, which can be detected, however, only by one versed in minutiae of clinical neurology. For certain aspects of these, reference may be made to the writings of Babinski and his followers, and to the authors of: Nature of Hysteria, *International Clinics*, 1908; Simulation of Hysteria, *Amer. Jour. Insanity*, 1910; Reflexes in Hysteria, *Month. Cyclop.*, 1910; Essential Differences of Hysteria and Psychasthenia, *New Orleans Med. Jour.* 1909; Hysteria and Pseudo-Hysteria, *Amer. Jour. Med. Sci.*, 1910; Differential Diagnosis of Functional from Organic Motor Disabilities, *Archiv. of Diagnosis*, 1908; The Sensibility in Disease, *Amer. Jour. Med. Soc.*, 1909; The Function of the Neurologist, *Medical Record*, 1911.

THERAPEUTIC MEANS.

The methods which have been used to attack hysterical fixed ideas may be divided into the following four categories:

I. *Mystical Impression*.—This has been used in all ages with pow-

erful effect even upon those who are ostensibly among the most highly educated. A consideration of the mechanism of this method would lead me too far in what is a practical therapeutic presentation.

II. *Suggestion*, direct or indirect, whether in hypnosis or not. This method is a very crude one, merely aims at removing a symptom by sidetracking it by using a mental mechanism quite similar to that which has caused the symptom. It is as short-sighted as the giving of morphine for the pains of appendicitis; for it merely masks and thus perpetuates a condition at the root of the trouble. Moreover, it often fails to remove the symptoms against which it is aimed, a fact beautifully illustrated by cases IV. and V. Its success in case II. was only fugitive. This case illustrates, too, the tenacity of a relapse of a symptom temporarily removed by suggestion.

III. *Emotional Appeal*.—It is uncertain if this measure, in its purity at least, is ever the effective force in the transformation of a hysterical symptom, for it is impossible to divorce it from the ideational element upon which it must always rest, even in the most primitive beings. Many psychopathologists believe the contrary, because of the fact that cold intelligence is powerless in therapeutics and requires for a dynamic result the effective constituent needed for conation. But a little reflection makes it clear that the *affect* is, so to speak, only the background of the idea, and that the act or thought (for they are the same thing)* which ensues upon psychotherapeutic intervention takes its direction from the idea by which it can be differentiated from other ideas, of like affective quality but very different in their effects in accordance with the difference of the controlling idea they present.

For instance: A good example was the cessation of a young woman's infatuation for her lover as soon as the idea of his handsome attractiveness was substituted by Professor Janet by the idea that he was repulsive. This was accomplished by suggestion that she would be unable in the future to picture her lover's face except in the form of that of a pig. Here the affective difference towards this man was not produced by direct emotional appeal, but resulted purely from a change of ideas. Another instance on a large scale is the transformation of many a man's normal affection towards woman into a loathing for her on account of the teaching of the church that she was unclean. The efficient factor in this transformation is the idea. The men still have the same feelings; but they are perverted from their proper end towards an ideal by a conceptual difference not essentially affective. Business morals too afford instructive examples.

IV. *Rational Persuasion, Comprising Enlightenment and Re-education, Motor, Sensory and Psychic*.—Although psychoanalysis of the whole of a patient's life is very rarely required, as my cases clearly

*See Author's *Intellectual Precocity*, Pedagogical Seminar, 1911.

show, yet it can be spared only in proportion as the investigator possesses (1) the diagnostic differentia of nervous disorder; (2) knowledge of psychopathology and (3) fineness in anamnesis.

Even if the pathogenetic factor is not found by these means yet reconstruction of the patient's attitude can be begun. In many cases, this is best accomplished by the patient's own physician as is shown by cases III., IV. and others seen with Dr. Claytor already published, *loc. cit.*; but there are some patients who require the frequent adaptations only possible to a psychotherapeutic technician of experience.

It would require far too much space to give therapeutic details or even principles here,* although it is unfortunate that there is so far no clear and succinct presentation of the subject. However, most psychotherapeutic literature is concerned with what is really hysteria, although it is often presented under other names.

The most important essential of the successful therapist is that he thinks not in artificial categories, but in terms of dynamogenesis, and this not only as regards the source of the patient's hysteria, but equally so as regards the means of disencumbrance to be used. No arbitrary empiricism will succeed. The method of trial and error is fatal, and the quick-trigger suggestionist is an abomination. No treatment should be attempted until a clear diagnosis is made. The patient's cooperation should be enlisted from the first, even although full enlightenment may not be expedient at the beginning. But, of course, strong meat is not for babes, and the dose of psychology must be strictly adapted to the understanding of the sick one.

After all, psychotherapy is merely a combination of special knowledge with good sense and honest purpose. Until these qualities are more common or more readily available, a large number of hysterics will continue to drift from the physician by whom they are not relieved to the Faith Healers and other charlatans whose suggestions they in turn undergo with little more benefit on the whole; for the temporary relief they so often obtain is usually at the cost of an increased hysterizability which is certain to show itself later, if not in symptoms of physical appearance, at least in psychological instabilities most detrimental to the society, in which they live. Hence, it behooves the medical profession to instruct the coming generation in the psychological principles which are the ground work of a prophylaxis and therapeutics of the most prevalent of all human tendencies, hysterizability.

* A short presentation was made to the Neurological Section, A. M. A. and should appear in the transactions of 1912 session and J. A. M. A.

ABDOMINAL AND PELVIC SURGERY.*

BY ARTHUR E. GILES, M.D., B.S.C., F.R.C.S.,

Surgeon to the Chelsea Hospital for Women; Gynæcologist to the Prince of Wales' General Hospital, Tottenham, London.

MR. GILES opened his address by expressing his high appreciation of the honor that had been done him in inviting him to give the address in surgery, and by expressing the feeling that he knew his audience would be lenient towards any shortcomings therein, and assumed that his hearers would be

"To his faults a little blind,
And to his virtues very kind."

He then went on to state that the work of the general surgeon and the gynæcologist met on common ground when treating surgically diseases in the abdomen and pelvis. He stated that his remarks would deal with "The Widening of the Scope of Abdominal Surgery from Life-saving to Health-restoring Operations."

Abdominal surgery is only one hundred years old. Although a few operations of this sort had been performed from early times, the advent of this branch of surgical work began in 1809, when Ephraim McDowell, of Kentucky, performed his well-thought-out operation. That great surgeon did the operation twelve times with eight recoveries. For a generation things stood still, as the profession was skeptical or disapproved.

The next step onwards was made by Charles Clay, of Manchester, who performed in that year a successful ovariectomy. He operated on 395 patients with 101 deaths. It took much courage to keep on in the face of such a high death rate. In 1861, Tyler Smith, President of London Obstetrical Society, said he thought the operation would not be a success in either general or special hospitals.

During the 25 years from 1885 to 1910 there had been performed at the Chelsea Hospital 848 ovariectomies with 47 deaths, giving a mortality of 5.5 per cent. But the earlier portion of this period gave 12.8 per cent., while the latter gave only 3.4 per cent. In the Prince of Wales' General Hospital Mr. Giles had performed 145 ovariectomies with five deaths. The figures for the two hospitals for the past ten years was a death rate of 2.2 per cent. The three factors that had done so much to reduce the mortality were the introduction of anaesthesia, the perfection of technique by Spencer Wells and others, and the anti-septic system made possible by Pasteur and Lister. In 1863 Mr. Clay

*Abstract of the Address on Surgery at The Canadian Medical Association, Edmonton, 12th August, 1912.

was doubtful of the use of chloroform. This goes to show how slowly great innovations are adopted.

Anaesthesia and improved technique very materially lowered two of the risks in abdominal operations, namely, shock and hemorrhage. But the mortality was still high, as septic trouble was a dreaded enemy. But Lister overcame this and modern surgery had its real birth. When the record of surgery of the past ten years is considered a wreath of veneration and gratitude is placed upon the shrine of the mighty dead.

Ovariectomy has been of slow and gradual growth. In 1863, Charles Clay performed the first successful hysteriotomy for fibroids by the intra-peritoneal route. In the same year Koeberle carried out the first hysterectomy by the extra-peritoneal treatment of the stump and the use of the serre-noeud. In 1879, Lawson Tait first removed the inflamed tubes; and in the same year Battley removed healthy ovaries and tubes for dysmenorrhœa. In 1883, Lawson Tait successfully operated for ruptured tubal pregnancy, establishing a new record of advancement. Many surgeons of those days opposed these operations, claiming that fibroids and inflamed tubes did not endanger life, and this position was somewhat justified by the high death rate of 20 to 30 per cent. for fibroids and 10 to 15 per cent. for removal of the ovaries and tubes.

The range of abdominal surgery gradually became extended so as to include operations on the gall bladder. The intestines, Caesarian section, etc. It is now often possible to save the child when birth in the ordinary way could not occur. In the days of the high mortality of the past, well might the sufferer say, "Let me fall into the hands of God rather than into the hands of man."

Taking a glance at past progress the following table gives a clear view of what has happened in the Chelsea Hospital:

YEARS	NO. ABDOM. OPERATIONS	NO. DEATHS	PERCENTAGE
1886-1890	126	27	21.4
1886-1895	206	35	17.0
1895-1900	879	50	5.6
1901-1900	1,493	63	4.2
1905-1910	1,880	54	2.8

In the case of operations on the tubes the following table gives the progress:

YEARS	NO. OPERATIONS	NO. DEATHS	PERCENTAGE
1886-1890	12	4	33.3
1891-1895	22	3	13.6
1896-1900	198	7	3.5
1901-1905	302	10	3.3
1905-1910	363	5	1.3

In the matter of hysteriotomy for fibroids the following is of interest:

YEARS	No. OPERATIONS	No. DEATHS	PERCENTAGE
1896-1890	14	5	35.7
1891-1895	12	5	41.6
1896-1900	150	16	10.6
1901-1905	345	18	5.2
1906-1910	487	9	1.8

The surgeon and the operating room now take place as leading factors in the saving of life. The educated classes know a good deal about operations and accept such when necessary with a reasoned faith. Those who do not understand anything about surgery are now willing to be guided by the surgeon. On the whole there is a marked change of front on the part of the public. This, however, brings with it an extra responsibility to the surgeon.

It is through this wonderful progress that the operations for the relief of uterine displacements, the treatment of pelvic inflammations, and the removal of tumors have become possible and frequent. The amount of suffering that has thus been removed from humanity cannot be estimated. Many useful lives have been saved, and the total duration of life greatly increased. The old expectant treatment of these conditions has largely disappeared. We no longer tell the patients, "Wait for the change of life and then these tumors will shrink and you will get well."

Surgeons should have a feeling of reverence for the human body, and that the only sanction that can be accorded to surgical interference is that which is derived from the conviction that life, health or comfort must otherwise be sacrificed. On the other hand, we are not justified in refusing surgical relief when health and usefulness are at stake, any more than we should be entitled to withhold the aid of surgery when life is threatened, provided the risk of operation to that of non-interference is properly weighed. In other words, the grave issues of life and death justify great risks, and the lesser issues of health and infirmity warrant only slight risks. Modern surgery is placing a lessening risk at the disposal of a widening circle of sufferers.

THE MASSACRE OF THE TONSIL.*
(Selected.)†

BY JOHN R. MACKENZIE, M.D.,

Clinical Professor of Laryngology and Rhinology in the Johns Hopkins University and Laryngologist to the Johns Hopkins Hospital.

DURING the past few years I have been repeatedly urged by medical friends to give some public utterance by way of formal protest against the indiscriminate and wholesale destruction and removal of the tonsils, which, far above all others, is the chief and most glaring abuse in the laryngology of the present day. They have been good enough to say that a word might not be amiss from one who has been through the dust and heat of the conflict that has raged around this and other fancies in surgical laryngology which have risen and fallen during the quarter of a century that has just passed away.

One of these friends, a distinguished general surgeon of wide experience, large practice and exceptionally high professional skill, in insisting that I say something on the subject, gave me as his deliberate opinion that of all the surgical insanities within his recollection this onslaught on the tonsils was the worst, not excepting the operation on the appendix. And, indeed, when I look back through an experience of over thirty years, in which I have seen theory after theory, for some of which I have been partially, if not wholly, responsible myself, come and go, materialize and dissolve, I feel that, notwithstanding the fact that I approach the subject with reluctance, with diffidence, with hesitancy—with even timidity—and fully mindful of the truth that we are all liable to error, even the youngest of us, and that nowadays in some quarters apparently age and experience count for nothing, I feel I may be pardoned for saying a few words in what I consider to be the interest of the public health, and, therefore, of the public safety.

Let me at the outset be not misunderstood. It is not my object to stir up strife, to impute unworthy motives to anyone, or to arrogate to myself any superior wisdom in the surgical management of tonsil disease.

Nor do I wish to shift to other shoulders all the blame. I, too, in my earlier days, have fallen by the way. Indeed, it was once facetiously said that the street in front of my office was paved with the turbinated bones of my victims.

That there are a host of conditions that call for more or less complete destruction of the tonsil is an axiomatic proposition which is

*Read April 24, 1912, before Medical and Chirurgical Faculty of Maryland.

†Reprinted from the Maryland Medical Journal, September, 1912.

not open to discussion. We have all been taking out tonsils for innumerable reasons ever since we entered our special field of work, and we will continue to do so when proper occasion demands it. My contention is simply this, that in selecting our cases for operation we should be guided by a sane and safe conservatism and common sense, and not be carried away by those who, by their precept and example, are fast bringing our specialty into disrepute in the eyes of thoughtful and honorable men.

Many years ago Austin Flint was conducting an examination in physiology at the Bellevue Hospital Medical School in New York. Among the students who came up for graduation was a bright young fellow to whom Flint propounded the following conundrum: "What is the function of the spleen?" And the lad replied that the function of the spleen was to enlarge in malarial fever. To the next question, "What is the function of the tonsil?" the boy declared that the mission of the tonsil was to swell and suppurate in quinsy. "That will do," said Flint, "you have passed a perfect examination, for you know as much about the subject as I do myself." Long before, a distinguished medical luminary on the other side of the Atlantic has said that were he, like Frankenstein, to attempt the artificial construction of a man, he would leave the tonsils out. In other words, at that period, or, as a matter of fact, from a period as long back as memory can run, the tonsil was regarded as a perfectly useless appendage which cumbered the throat, and which, therefore, ought to be gotten rid of. Like its little neighbor, the uvula, it was sacrificed on every possible pretext or when the surgeon did not know what else to do. I remember, a long time ago, in a discussion on hemorrhage after tonsillectomy before a New York society, a distinguished laryngologist made the statement that he had removed without accident many thousands (I have forgotten the exact number) of tonsils—to which declaration an inquisitive, incredulous individual present, with a mathematical turn of mind, said he had made a calculation which showed that in order to have removed that many tonsils within the limit of an ordinary lifetime the operator would have to average a bushel a day.

This general extirpation of the tonsils that obtained in the early days of laryngology received a rude and jarring jolt when, in the last century, it was proclaimed that the tonsil was physiologically directly related to the virility of the male. According to this luminous conception, which owed its popularity chiefly to the teachings of no less a personage than Chassaignac, destruction or extirpation of the tonsil meant impairment or extinction of procreative power. This doctrine at once made tonsillectomy very unpopular among the male laity; but when the Homeric shock of the battle that raged around this burning question

had subsided, and it had been found that there were no facts to support the alleged relationship, then the work of slaughtering the tonsils again went merrily on.

But never in the history of medicine has the lust for operation on the tonsils been as passionate as it is at the present time. It is not simply the surgical thirst from which we have all suffered in our earlier days, just as at a still earlier period we suffered from the measles; it is a mania, a madness, an obsession. It has infected not only the general profession, but also the laity. A leading laryngologist in one of our largest cities came to me with the humiliating confession that, although holding views hostile to its performance, he had been forced to do a tonsillectomy in every case in order to satisfy the popular craze and to save the practice from destruction.

To-day the laity, with or without medical advice, insist on entire removal of the tonsil for almost every conceivable infirmity. If I had time to do so, I could tell you some, if they were not so serious, amusing stories in this connection.

I will only relate one. A few days ago a woman brought her little six-year-old daughter to me to know whether her tonsils ought to come out. Her nasal and throat passages were normal.

The child was in perfect physical condition and complained of nothing. I said to the mother: "Your baby is perfectly well; why do you want her tonsils out?" "Because she sometimes wets the bed."

In the annual reports of nearly all the special hospitals for diseases of the nose and throat the number of tonsil removals, as compared with all other operations on the upper air tract and its appendages, is simply appalling. In conspicuous and refreshing contrast to the usual narrative of these productions let me quote from the last report of a well-known children's hospital in this city these words of sanity and wisdom:

"A large and annually increasing number of cases apply for operation for hypertrophied tonsils, or for adenoids. Of these the adenoids practically all need and receive operation with benefit and without injury.

"The recent universal inspection of the throats of school children has revealed the fact that nearly all children at some time of life have more or less enlarged tonsils.

"That most of this is harmless if not actually physiological, and that their removal in these cases is not only unnecessary but injurious to the proper development of the child is our conviction.

"The rarity of rheumatism or endocarditis in children, while nearly every child has enlarged tonsils, would indicate that their removal is only exceptionally advisable unless they mechanically interfere with

respiration, deglutition, or speech. When this is the case they are still best removed with the tonsillotome unless radical extirpation is necessary for other reasons."

I cannot more correctly express the general attitude on the matter than by quoting the words of Professor Swain of Yale University, in the admirable paper with which he opened the debate on the subject at the last meeting of American Laryngological Assoliation in Philadelphia:

"When an author speaks of his experience in upwards of 9,000 cases, mentioning especially 3,000 removed within the capsule within the last six or seven years, the only method which he thinks is really worth the while—he certainly has a right to speak as an expert in regard, at least, to methods. Also, it will be readily deduced that he felt in removing tonsils thus wholly he was not depriving the patients of any thing important. When it is the practice in recent years of many operators all over the country to always enucleate the tonsils as completely as possible in all cases, either children or adults, as a routine procedure, it would certainly seem to argue that in general, tonsils are better out than in. The question of relative size, appearance, healthiness of structure or any such matter is apparently never thought of. Remove, anyway, and dismiss the matter as not worthy of further consideration. And, again, it is a most excellent condition of things to be operating laryngologist to a busy internist, who takes the entire responsibility of removal. Failure and success are alike credited against him, but it is a case of blissful inexactness which I consider deplorable."

Much wild and incontinent talk, for which their teachers are sometimes largely to blame, has poisoned the minds of the younger generation of operators and thrown the public into hysteria. Tonsillectomy, for example, is held out to them, not only as a sure cure for, but as an absolute prophylactic against rheumatism and heart disease. They are told that with the disappearance of the tonsil in man, these diseases will cease to exist. Parents bring nowadays their perfectly sound children to the laryngologist for tonsil removal in order to head off these affections. Tonsillectomy is recommended as a curative during the agony of acute articular rheumatism.

But the origin of the latter disease has recently been traced to an infection of the nasal mucosa following operation. To-morrow it will come from somewhere else. Those of us who are old enough to remember will recall the story of chorea. Years ago we found the cause of this affection in the nasal passages. When this view, after the usual struggle, had to be abandoned, it was suddenly discovered that the eye was the portal of entrance. To-day it has been caught in the tonsil. If we exercise a little patience it will turn up soon in some other organ.

In considering the question of operation on the tonsil, and especially complete removal, we must face the following facts:

I. The functions of the tonsil are, in the present state of our knowledge, unknown.

Whether they are portals of entrance or avenues of exit for infection, whether they protect the organism from danger or invite the presence of disease, whether the pathogenic bacteria sometimes found in them are coming out or going in, whether they are manufacturers or storehouses of leuco—or lymphocytes, whether they represent the extreme outlying protective ramparts and that, therefore, their destruction would mean the removal of the battle-line against infection from the throat to the neck lymphatics, whether the efferent current of lymph exceeds the afferent in volume or velocity, whether, which seems probable, there is an endless flow of lymph from their interior to the free surface, which, unchecked, prevents the entrance of germs from the surface and washes out impurities from within, whether the organ possesses an internal secretion, *sui generis*, or whether, in fine, the tonsil structure is in any way essential to the well-being of the individual, are questions which have as yet received no definite solution, but which are full of interest and furnish material for instructive discussion and debate. Until the functions of the tonsil are known the final word on its removal cannot be spoken.

II. Whatever its functions may be, and the production of leucocytes is undoubtedly one of them, the tonsil is not, as is generally taught and believed, a lymphatic gland.

The general ignorance of this fact has led to the useless sacrifice of thousands of tonsils, on the fallacious assumption that their functional activity may easily be replaced by the myriads of other lymphatic glands in the body. The physiological integrity of the tonsil is of the utmost importance in infant and child life. The gland appears early in embryonic life (fourth month), attains maturity at the end of the first year of infancy, and at or about puberty tends to diminish in size. It does not develop as a lymphatic gland from a plexus of pre-existing lymph vessels in the mesothelium, but as an ingrowth of endothelium from the second branchial pouch and, therefore, in its origin must be classed with the thymus and the thyroid, the former originating from the third, the latter from the fourth, while the parathyroid takes its origin from the third and fourth branchial pouches, all by inbudding of the endothelial lining of the primitive pharynx. These anatomical facts have been recently emphasized by Gordon Wilson* of Chicago, who, in a careful study in comparative anatomy, has shown from various relations which the tonsil shows to the pharynx that the tonsil secretes or excretes a substance into the pharynx. The tonsil is present in all

*Transactions of the American Laryngological Association, 1911, p. 263.

mammals, with a few exceptions, notably the white rat, and its anatomical arrangement is such that no matter how concealed it may be by folds of membrane it always retains communication with the pharynx. Observations made in his laboratory on the carnivora show that in this genus the tonsil is often so protected by folds as to be invisible from the mouth; but there always exists a channel of communication. This is well shown in the lion, where the tonsil lies in an elliptical sac of considerable size, which is so placed that during certain movements of the pharynx the contents may be expelled into the back of the mouth. In other words (we have here a structure which plays a role of importance in early life, in addition to its production of lymphocytes, and which necessitates a close relation to the pharynx. This role may be of infinite value to the infant in his earliest days of life, but which, as he grows through childhood into manhood, he is able to dispense with.

Now, the first organ to manufacture or store leucocytes in embryonic life is the thymus gland (Jacobi).† In view of the origin of the tonsil from the branchial pouch, is it not conceivable as Jacobi suggests, that it may assume the role of the thymus after birth or when the latter gland ceases to functionate or disappear?

III. It is rarely possible to separate the tonsil from its neighborhood during the acute invasion or rapid progress of a microbial or toxic poison (Jacobi).

Years ago Jacobi called attention to the fact that in cases of membranous throat disease, whenever the membrane is limited to the tonsil, there is little or no glandular swelling in the neighborhood. If the membrane extends from the tonsil to its neighborhood, or starts at a distance from the tonsil, neighboring lymphatics swell at once.

Again, the treatment of this neighborhood shows its effect almost immediately in the swollen glands. This is especially true of diphtheria, which, when limited to the tonsil, produces less adenitis and constitutional symptoms, and, therefore, is less dangerous. We all remember, too, in the days before antitoxin, how much graver the prognosis was when the membrane appeared in the nose and upper pharynx than when it appeared on the tonsils. Nearly every case died.

IV. The role of the tonsils as portals of infection, like all new doctrines in medicine, has been greatly exaggerated. To state that they are, in certain cases the avenues through which pathogenic organisms reach other organs is simply to state an incontrovertible proposition, in the light of present-day research. But to make them responsible for the long Iliad of woes which has been laid to their account is to remove the whole question from its legitimate place in the region of cold clinical fact into the atmosphere of fads and fancies. Some absorption takes place in and from the tonsil, but it is far less than that which

†Archives of Pediatrics, July, 1906.

occurs in the more abundant and receptive lymphatic structures of the nose and nasal pharynx. The tonsil, however, is not built anatomically as a gateway of infection. I have not time to go into a review of this interesting subject, but will simply quote, with some modification, from a summary by Faulkner of Pittsburgh *Medical Record*, July, 9, 1910), based on an analysis of observations made by Most, Retterer, Labbé, Hodenpyl, Jacobi, Grober and others, and also refer you to a symposium on the subject of the naso-pharyngeal lymphatics and their relation to other parts of the body by Hartz, Poli, Logan Turner and Broeckart:*

“The faucial tonsils are peculiar organs. They possess an anatomical character different from other tonsils and other lymphatic tissues. They are innocent organs with functions chiefly confused by medical literature. Their blood supply is scant and they have almost no communication with the lymphatic system. * * * Their crypts are lined by mucous membranes having the ordinary function of other mucous membranes so far as known. They are distinctly separated from the very active absorptive and bacteriolytic structures of the fauces, pharynx and nose. Their position is a segregated one. Their external deep surface is covered by a dense fibrous capsule which sometimes sends a network of fibrous tissues as outrunners along the tonsillar blood vessels (Hodenpyl), the tonsil contains a system of closed lymph canals in the follicles which do not open into the connective tissue reticulum (Retterer, confirmed by Hodenpyl), diphtheria membrane confined to the tonsil is relatively innocent (Jacobi). There are no lymphatic sinuses around the tonsil, and the nearby lymph current is less active than that of the pharynx at some distance (Labbé), and finally, injections made into the region of the tonsil (not even into the tonsil itself) do not spread like those made into other parts of the naso-pharynx (Labbé, Retterer, Hodenpyl, Most and Jacobi).”

Hartz,† in reviewing the important experiments of Lenhardt, says: “These experiments would lead to the assumption that the tonsils are frequently infected secondarily to acute infection of the nose and the accessory cavities and the nasopharynx. * * * It is probable that every inflammation of the mucosa induces a swelling, often imperceptible, of the neighboring lymphatic glands of greater or less extent, which, acting as a protective mechanism, inhibits the development of the germ. To the tonsils, which have the function of an open lymphatic gland, may be ascribed a protecting influence against the micro-organisms which are ever present in the mouth and nasopharynx, acting, also, as a barrier against their invasion into the trachea and esophagus. On the other

*These papers have been collected, the foreign ones translated into English, and published in the *Laryngoscope*, March, 1912.

†*Laryngoscope*, March, 1912.

hand, it must be admitted that the tonsils are frequently the seat of primary inflammation, and that they are more susceptible to disease than other membranous structures in this region."

The question has two sides—a purely bacteriological and a purely clinical one. If we consider the vast extent of the area through which infection can possibly take place, and if we follow the lead of experiment and that of the pure bacteriologist to its extreme limit and logical end, we may find that nothing short of the guillotine or the axe will insure the patient against absolute and certain immunity from infection through the throat.

On the other hand, when we consider the fact that there are constantly loitering around the oro and nasal pharynx—this region is the clubhouse of the streptococcus—a miscellaneous crowd of pathogenic bacteria, and when we consider the further fact that thousands of operations are done in these regions every day, and necessarily without antiseptic precautions, is it not significant at least that we meet with so little sepsis following their performance?

V. The chief practical lesson to be drawn from the foregoing facts is that in cases in which the throat, and particularly the tonsils, is apparently the starting point of infection, it is mandatory to examine the entire upper air tract and not be content with appearances that are visible to the eye through the open mouth alone. How many stop their search for the cause at the tonsil and fail to explore the deeper parts of the pharynx, the retro-nasal space, to say nothing of the nasal passages and accessory sinuses? This entire region must be reckoned with, and failure to do so has probably sent more than one to his grave. I know of a number of cases of fruitless removal of the tonsil which have only gotten relief when treatment was subsequently directed to the nasal cavities and post-nasal space. Not to mention many others, I am forcibly reminded of a case of general poisoning and wrecked health in a young woman in whom I had thought I had traced the source of infection to an antrum maxillae empyema. As there was no escaping pus, my diagnosis was not accepted by the family and attendant, and I was not even permitted to make an exploratory puncture. I am unable to say what operation, if any, was done, as she naturally passed out of my hands. But as she grew rapidly worse, and as the futility of the treatment became apparent, my advice was finally reluctantly and doubtfully taken, the antrum was opened, the fetid contents evacuated, and the patient, under appropriate treatment, went on to speedy and complete recovery.

I could tell you, also, of cases in which the tonsil has been held responsible for the morbid condition, and has been partially or completely removed, in which relief has only been secured by the discovery

and treatment of disease in the nose and retro-nasal space. And of far graver, far-reaching and deeper significance are cases of infection in which life has doubtlessly been sacrificed by clinging to the lazy and stupefying delusion that the tonsil is the sole portal of poisoning.

VI. The hypertrophied lymphatic tissue of the vault of the pharynx (adenoids) does harm chiefly through obstruction. Restore normal respiration in the child, and in a large number of cases the tonsils will take care of themselves. Even if the glands should remain large, if they are giving no trouble, they may be safely left *in situ*, for as their growth does not go on *pari passu* with the growth of the rest of the pharynx, the time soon comes when they become inconspicuous in the fully developed fauces.

The mere size of the tonsil is of itself no indication for removal except it be large enough or diseased sufficiently to interfere with respiration, speech or deglutition, in which case it, or a sufficient portion, should be taken away without delay. A large tonsil does not mean necessarily a diseased tonsil, nor does a small tonsil always indicate a healthy organ. Tonsils apparently diseased may consist of normal tissue, and, on the other hand, perfectly normal-looking glands may be found pathological microscopically. The tonsil may be greatly enlarged, may extend far down into the pharynx or be buried deeply in the palatine arcade, and yet not interfere with the well-being of the individual. Such tonsils are the special prey of the tonsillectomist. If they are not interrupting function, they had best be left alone, for they are doing no harm. The change in anatomical relations after operation is often so great that function is crippled more after their complete removal than it was before. Moreover, it occasionally happens that the resurrection of a "buried" tonsil is followed by the burial of the patient.

A most interesting and instructive part of this subject is the occurrence of tonsil disease, with or without cervical adenitis, from infection from the nasal passages (from pus cavities, operations, etc.) and the improper care of the teeth during dentition. Wright* of Boston reports a remarkable series of 150 cases in which operation on the tonsils was deferred until after the eruption of the molars, not only in the six, but in the twelve-year period, and when dentition had been completely accomplished the enlarged cervical lymphatic glands disappeared, together with the swelling of the tonsils.

Tonsillitis not infrequently follows operations on the nasal cavities, especially if pus be present, or even after a cold in the head. Experimental work along this line would seem to indicate that infection takes place through the lymphatics. Thus, in the carefully conducted experiments of Lenhardt† it was found, among other things, that foreign

*Boston Med. and Surg. J., May 20, 1909.

†Archiv. J. Laryngologie, 1909, Bd. XXI.

matter, even when injected into the mucous membranes of one nasal passage, was found in both tonsils a short time after the injection.

The practical illuminating lesson of these observations is that if, in infancy and childhood, we pay more attention to the neglected nasal cavities and to the hygiene of the mouth and teeth, we will have less tonsil disease and fewer tonsil operations.

VII. In the permanent removal of tonsil disease equally good, and in the long run even better results may be obtained in a large percentage of cases by measures less radical than those usually employed at the present time. Out of a multitude of examples, take the case of recurring quinsy, for which complete enucleation is done. In this condition it has been found that it is frequently only necessary to thoroughly slit up and shrink the upper lobe of the tonsil. Most quinsies occur in this situation, and the destruction of that part of the tonsil is all sufficient to prevent recurrence. By this method enough of the organ is left to entirely perform its function, and the ultimate development of quinsy of the lateral columns of the pharynx which follows sometimes complete removal is avoided.

VIII. I do not propose to enter the perennial and monotonous controversy of tonsillotomy versus tonsillectomy. Each operation has its legitimate indications and aims. I do not intend to discuss them. I will only say, in passing, that enucleation of the tonsil, with even the removal of its capsule, if so desired, complete enough for all practical purposes, and this fact should be generally known, practically free from danger and with equally, and in some instances better results, can be done with the guillotine or one of its modifications. In the majority of cases this procedure will be all sufficient. It is a much simpler method, especially in children, and it is not handicapped by the danger of complete enucleation, with its many accidents and complications, to say nothing of its long roll of unrecorded deaths. To subject a child to the latter operation, with all that it entails, when we have very much safer and practically just as efficient measures at hand, is, to say the least, bad judgment and unnecessary surgery.

As I see this part of the subject in the light of my own experience, and in the experience and observation of others, the truth is slowly but surely dawning, and at no distant day will irresistibly emerge into recognition that the so-called complete enucleation—the chief objection to which is that it can never be made complete—except in individuals in whom the organ is totally diseased, is an unnecessary operation in the great majority of cases in which it is at present done, and may be supplanted by many other methods which are perfectly safe and efficient and not open to its many serious objections. That the tonsil has some important mission to fulfil is furthermore shown from its frequent re-

appearance after enucleation—a protest, as it were, on the part of nature against the total destruction of its functions, and the vicarious activity of the neighboring lymphatic tissues when its physiological properties cease to exist. This is strikingly shown in the case of quinsy of the lateral columns of the pharynx, before referred to, when the tonsil is rudimentary or gone. In the case, too, of infectious disease whose poison is eliminated by the throat this compensatory action is most marked. Thus in the malignant epidemic of tonsillitis which occurred last year in Boston, in which the disease was not contagious, did not start from a septic focus in the throat, but was introduced through the food supply (milk), after much constitutional disturbance, the whole tonsillar ring, as Coolidge* expresses it, broke into flame at once. The patients whose tonsils had been removed did not escape the process in the pharyngeal lymphoid tissue, the constitutional symptoms or the cervical adenitis.

IX. The tonsils are phonatory organs and play an important part in the mechanism of speech and song. They influence the action of the surrounding muscles and modify the resonance of the mouth. On the other hand, they may be so enlarged as to cripple both these functions, and should, therefore, be removed, such removal being sometimes a gain to the voice of one or more octaves. In tonsillectomy no one can foretell the amount and character of change in the anatomical relations of the parts, no matter how skillful the surgeon is or how skillfully the operation is performed. The adhesions and contractions left after this operation, even in the best of hands, lead often to deplorable changes in the quality and ruin of the singing voice. I should certainly hesitate long before advising such an operation in a great singer or anyone dependent upon the voice as a means of livelihood. The operation of tonsillectomy is a capital operation, a dangerous operation, and should only be done in a hospital or other place where every facility is at hand to meet the gravest possible emergency. It should only be done by a surgeon skilled in its performance and thoroughly equipped for every accident, and with a mind fully awake to the possible fatality which has so often followed as its result.

X. One word, again, to those who will fail to grasp the meaning of these remarks. It is not my object to decry in the least degree the many excellent measures which modern ingenuity has devised for the surgical treatment of tonsil affections. No one resorts to them with more alacrity than myself when the necessity for their adoption is apparent.

It is not my purpose to assail operation for definite and legitimate cause, but to warn against the "busy interest," as Swain so aptly terms him, who is too busy to waste his time with such trifles as differ-

*Transactions Am. Laryngological Association, 1911, p. 272.

ential diagnosis or diagnosis by exclusion, and his accommodating tonsillectomist, who, whether he admits it to himself or not, cares less about the cause of the trouble, as he is in the business for revenue only.

We who are teachers of laryngology should wake up to the responsibilities of our position and see to it that our pupils shall not leave our institutions or post-graduate schools until they are taught, on the one hand, conservatism and moderation in the surgical treatment of the simpler affections of the upper air tract, and, on the other hand, thoroughness and completeness when brought into the presence of situations of graver emergency. The problem, though difficult, is not impossible of solution. The cure for the evils I have been discussing is largely educational. While impressing upon our students the absolute necessity for surgical measures in proper cases, we should at the same time make the dangers of their indiscriminate performance fully apparent. In this way only can we be reasonably sure of accomplishing the desired result. The error of first impression derived from teacher and textbook is often difficult of eradication. In the lecture-room, in the clinic, in our daily walks with the student, let us make that first impression a good one.

But equally, if not more, responsible for the deplorable state of affairs which exists to-day in the matter under discussion are the teacher of internal medicine and the general surgeon. When pre-eminent authority proclaims in lecture-room and text-book as indisputable truth the relationship between a host of diseases and the tonsil of the child, and advises the removal of the glands as a routine method of procedure, what can we expect of the student whose mind is thus poisoned at the very fountainhead of his medical education by ephemeral theory that masquerades so cheerily in the garb of indestructible fact? How are we to offset the irresponsibility of the responsible? But we hear on all sides, "Look at the results." Results? Here is a partial list from the practice, not of the ignorant, but of the most experienced and skilled: Death from hemorrhage and shock, development of latent tuberculosis in lungs and adjacent glands, laceration and other serious injuries of the palate and pharyngeal muscles, great contraction of the parts, removal of one barrier of infection, severe infection of the wound, septicemia, troublesome cicatrices, suppurative otitis media and other ear affections, troubles of vision and voice, ruin of the singing voice, emphysema, septic infarct, pneumonia, increased susceptibility to throat disease at the seat of operation, pharyngeal quinsy, and last, but not least, tonsillitis!

Who, may I ask, is in the better position to advise, the surgeon or practitioner, who, without sufficient knowledge, lightly recommends complete enucleation of the tonsils, or those who have devoted their

lives to the study of throat conditions and who come in daily contact with its disastrous and often fatal end results? Formerly it was the nasal septum, now it is the tonsil that is the surgical objective of every beginner in laryngology, and a tonsillectomy is usually his first baptism of blood. This operation is done all over the land by operators of all kinds, and, if the truth were known, with great mortality. The amount of reckless surgery done in this field will never be known or chronicled in the pages of medical literature, but it may be found in its abiding place in the book of the recording angel.

We are going through to-day in laryngology what the gynecologist went through years ago. The ovaries were removed then under as little provocation as the tonsils are being taken out to-day. The so-called "tonsil question" is one of simplicity and comparatively small dimensions when viewed in the light of sanity and common sense, but it has been made to assume formidable proportions by unsound observation and reckless surgery. It has come to a point when it is not only a burning question to the profession, but also to the public. This senseless, ruthless destruction of the tonsil is often so far-reaching and enduring in its evil results that it is becoming each day a greater menace to the public good. Until we have more definite knowledge concerning the use of the tonsils no one can tell the damage done to the children of the present generation or the influence of wholesale tonsil removal on the children of the next. Whatever a more exact examination of the tonsil may reveal as to its function, I believe it was placed in the throat not with evil, but with good intent; to serve a teleological rather than a pathological purpose; that its mission is physiological, and that it was not designed by Nature as a natural, easy and convenient avenue of infection. It is, of course, not open to debate that there are a multitude of conditions that call for partial destruction or more or less complete removal of the tonsils, but radical operation should not be done without definite and sufficient reason. The tonsil should not be sacrificed any more than any other organ without convincing evidence that it is the cause of the disease to be removed.

Hasty theory, which sees in destruction of the tonsil the only means of treatment, and which, unmindful of the lymphatic and other anatomical arrangement of the neighboring structures and their physiology, and which, losing sight of the further fact that it is hard, if not impossible, to determine during life that the tonsil is the only avenue of entrance in a given infection, throws differential diagnosis to the winds, should have no part in modern laryngology. When we shall clarify the atmosphere of our ideas in this matter, and when sane authority shall demand a halt, then we will hear less of the massacre of innocent organs and have less frenzied literature on the subject.

CURRENT MEDICAL LITERATURE

MEDICINE

UNDER THE CHARGE OF A. J. MACKENZIE, B.A., M.B., TORONTO

MEDICAL SUGGESTIONS.

Sir J. Sawyer says that in wasting disorders, in various forms of anemia, in adynamic varieties of rheumatism and in the neurasthenic manifestations of neurotic persons he has found the continued ingestion of cane sugar markedly beneficial, increasing weight and power, and appearing to act not merely as a nutrient but also as a tonic.

About 99 per cent. of cases of belching is due to the escape of swallowed atmospheric air and not a sign of any pathologic condition. One swallows air with food and drink, and this accumulates and forces its way through the cardiac orifice. When belching is a symptom of gastric or general disease a nervous hyperchlorhydria is the explanation. The accumulation of gas in the stomach is not dangerous except in elderly patients, in whom arteriosclerosis or some heart lesion or some other serious condition exists, of which the flatulence is a complication.

An exchange says that fuchsin is a germicidal agent more powerful than the phenol and has a greater diffusibility and is less toxic. It has a marked stimulative action on epithelial and granulation tissue growth.

Slight eructation of air after meals is perfectly normal. True fermentation may be present in stasis, but this is comparatively rare. It is usual accumulation instead of excessive production of gas in the stomach which gives rise to this annoying symptom commonly called "gas on the stomach." When gas on the stomach annoys a patient he usually is nervous and has too much acid. (Give him alkalies, proper diet and general treatment.)—*Med. Times.*

THE SPINAL CORD IN PERNICIOUS ANEMIA.

R. L. Willson, Philadelphia, (*Journal A. M. A.*, Sept. 7), reports a case of pernicious anaemia with marked nerve centre involvement and an interesting family history, and describes the complications on the part of the nervous system in this disease. It is well, he says, to remember that there are spinal cord and perhaps brain changes in every case of true pernicious anemia and the nervous symptoms may sometimes prevent its prompt recognition. The spinal cord lesions consist of a combined sclerosis of the posterior and lateral columns, the former some-

times being alone affected and producing the clinical picture of tabes. The lateral columns are never involved by themselves. A considerable number of cases have been reported in which the anterior horns were involved, but this is a late development in the disorder. In the case reported there was a very striking clinical indication of a pathological intestinal process dating back to childhood and it seems evident that this toxemia led up to, if it is not absolutely demonstrated to be the direct cause of, the later symptoms. The family history suggests a possible hereditary luetic influence, since one sister of the mother died in an advanced stage of locomotor ataxia, while two other aunts and the mother herself suffered also from conditions which might have thus originated.

THE STATUS OF MEDICAL EDUCATION IN AMERICA.

The status of medical education is always a subject of vital concern to physicians. In the issue of the *Journal* for June 20, 1912, (Vol. clxvi, p. 939), we commented editorially on the contrasted conditions of medical education and practice in Europe and in America, as presented by Dr. Abraham Flexner in the reports of the Carnegie Foundation for the Advancement of Teaching. The recently published second volume of the report of the United States Commission of Education for the year ending June 30, 1911, containing in complete form the statistics of education in this country during that year, includes a brief but impressive chapter on medical schools.

During 1911 the number of medical schools in the United States decreased from 135 in 1910 to 122, chiefly on account of discontinuance and mergers. There was also a decrease in the number of medical students from 21,394 in 1910 to 19,146 in 1911. This latter decrease the author of the report believes "due probably far more to raised requirements for admission than to disappearance of schools." It is interesting to note, however, that during the same period the number of pupil nurses in professional schools, excluding those in hospitals for the insane, also decreased from 26,511 to 25,118.

In general it appears that there is a "continuance of progress in the direction of higher standards of general education required for admission to the study of medicine." A few medical schools now require a bachelor's degree for admission to regular standing. Twenty-eight in 1911 required for admission a minimum of two years of work in a standard college of liberal arts, ten required one year of such work, and four announced the requirement of one year of college work, the requirement to become effective in 1912. In spite of this tendency

towards improvement, the author of the report points out that "the difficulties experienced by some of the medical colleges which desire to establish and enforce high standards for admission and graduation are increased by the varying requirements of state statutes and state boards of medical examiners for candidates for license to practice medicine within such states. There is a great and almost vital difference between requiring of candidates graduation from a 'chartered' medical school, and requiring graduation from a reputable or 'approved' medical school." Here again the ancient and traditional doctrine of states' rights stands in the way of the establishment by federal authority of a uniform national standard for registration in medicine.

The additional requirement of a fifth year of medical study, to be spent chiefly in hospital work, seems bound to come in time, as it has in many European schools. The college of medicine and surgery of the University of Minnesota established such a course a year ago, and Columbia University has practically announced its intention of making a similar change in the curriculum of the New York College of Physicians and Surgeons. This change would really involve providing for all that the majority of better men now take,—at least a year of hospital internship following their graduation from a medical school. Naturally it must come first in those schools which control their own or other hospitals sufficient to provide places for all their students. Under such control the appointment to hospital positions must rest in the hands of the school, and the year's period of service could probably thus be made more varied and therefore presumably better suited for the training of the prospective general practitioner. With the slow development of this system, and the consequent shortening of the usual present period of house officers' service, there will doubtless spring up in this country, as abroad, the position of salaried hospital resident, to be filled for a term of from one to three years by those who wish to pursue their medical training still further. Every medical student will then have the benefit of a house officer's service, and the more select minority will continue their experience as residents. Apparently in most American sociologic evolution the privilege of the few in one generation becomes the right of all in the next.

In connection with these increasing requirements and standards for medical education in this country, and the consequent decline in the number of medical students, it is interesting to compare a British opinion of the similar change which has occurred somewhat earlier in England. An editorial in a recent issue of the *London Morning Post* says on this subject:

"Several factors contribute to the growing unpopularity of the medical profession. The principal general cause is undoubtedly the

higher standard demanded as a result of the advance in medical science. The change in the curriculum from four to five years is within the recollection of most of those who have taken an interest in medical education, and has meant an increase in the cost of training of £150, with the result that many of those who would have entered the medical schools have been diverted into other channels. That is not all. At the recent Congress of Universities both Sir George Gibb and Sir Albert Spicer emphasized the importance of a university career as an avenue to business, and there is no doubt that the recent activity in business has resulted in inducing parents, who might have arranged that their sons should qualify in business, to give them a university education with a view of preparing them for administrative positions in commerce.

“There is, moreover, no doubt that the insurance act has exercised a very adverse effect on the medical profession. The drop in the number of entries from 1,495 in 1910 to 1,232 last year is almost, if not quite, unprecedented, and in the absence of any other explanation must be attributed to the uncertainty that has been introduced by the act. This shortage in medical students is perhaps the most convincing evidence that the opposition of medical men to the act is due to professional rather than political objections. Medicine is largely recruited from the sons of doctors, and while a man might conceivably be induced to refuse service under the act on political grounds, it is not conceivable that he would forego entering his son for the profession on the ground of politics. The fact that has to be faced by the community and the government alike is that the ordinary remuneration and the prizes of the medical profession are no longer sufficient to attract men enough. It is with this situation in front of them that the government has decided to try to throw an enormously increased burden on the profession. They have suggested terms which have resulted in uniting the profession in the most strongly resistant attitude that they have ever adopted in the course of their history.

Happily the status of medical education in the United States is not yet affected as in Great Britain by a national insurance scheme. The experience of the profession in England, however, should serve to remind us in our zeal that there may be limits beyond which it may not be wise or profitable to raise the requirements and cost of medical education in this country.—*Boston Med. J.*, Sept. 5th.

TREATMENT OF CARDIAC PALPITATION.

A. F. Plieque, discussing the question in *Bulletin médical* for May 18, 1912, advises that the cause of the symptom be carefully inquired

into before prescribing treatment. In cardiac palpitation associated with chloroanemia the following preparation does good, not only when continuously used, but even as an emergency remedy:

℞ Ferri chloridi 1 gramme
 Spiritus ætheris compositi 7 grammes
 M. Sig.; Take 6 to 20 drops in a glass of sweetened water when palpitation is felt.

In the secondary stage of syphilis cardiac palpitations are frequently observed; antileptic treatment is curative.

In gouty patients, when the discomfort induced by tachycardia is unusually great, cautious use of the following ointment, in addition to the ordinary palliative remedies, may give relief:

℞ Tincturæ colchici seminis 4 grammes
 Adipis benzoinati 30 grammes
 M. ft. unguentum.

At first a quantity of ointment only about the size of a hazel nut should be employed. The preparation should be discontinued if signs of gastro-intestinal irritation appear.

For acute rheumatic patients, Fienza used the following for precordial inunction:

℞ Sodii salicylatis 5 grammes
 Iodoformi 2 grammes
 Extracti hyoseyami 1 gramme
 Petrolati 20 grammes
 M. ft. unguentum.
 Sig.: Apply over heart and cover with flannel and cotton.

For general use in palpitation due to one of various causes, but especially in the presence of cardiovascular disorders, Smakovsky recommends:

℞ Chloralis hydrati 4 grammes
 Sodii bromidi 4 grammes
 Codeinæ 0.1 gramme
 Aquæ 45 grammes
 Syrupi aurantii 45 grammes
 M. ft. solutio.
 Sig.: One tablespoonful every hour, preferably in milk.

A ten per cent. solution of camphor in dilute alcohol may be applied over the precordial region with advantage. In intense, prolonged attacks, the ice bag is most efficient.—*N. Y. Med. Jour.*

SURGERY

UNDER THE CHARGE OF A. H. PERFECT, M.B., SURGEON TO THE
TORONTO WESTERN HOSPITAL

PROSTATIC HYPERTROPHY.

Marx points out that too many men are made prematurely old by prostatectomy. Hypertrophy weakens erectile power and ejaculation, beside its well known dangers, but both the soft and hard forms are amenable to prophylactic measures. The soft hypertrophy may be combated by bleeding, hot sitz baths, the use of suppositories of adrenalin, hamamelis, and cocaine, gentle cholagogues, milk and vegetable diet, absence of constriction about the waist. The hard prostatic tumor will be benefitted by similar treatment; particularly useful in this form are frequent saline enemata and suppositories containing mercury and ichthyol. Massage is also useful, and perhaps the iodides internally. Walking is advised, also moderation in sexual intercourse. Spiced foods and drinks are prohibited in both forms of hypertrophy. Increased erectile power should follow this treatment. Many men are ignorant of an advanced hypertrophy. To avoid the catheter life, Marx advises patients with enlarged prostates to urinate three or four times daily while on all fours; this procedure, according to him, completely empties the bladder.—*Paris Médical*.

THE ACTION OF RAY THERAPEUTICS ON MALIGNANT TUMORS.

At the recent meeting of the British Medical Association, Ernest H. Shaw reported the results of the histological examination of malignant growths he had made in two large London hospitals. After a short series of case reports (five), his generalisations are given in the *British Medical Journal* for August 17, 1912. The changes Shaw finds in tumors, whether they have been subjected to ray therapeutics or not, are: Round cell inflammatory infiltration, formation of fibrous tissue in varying amounts, and necrosis of tumor cells. These changes, according to Shaw, are Nature's efforts to destroy the neoplasm by checking and ultimately overcoming its cells. Necrosis, for example, is a familiar feature in parts of a malignant growth; at an ulcerated surface, sepsis is obviously the exciting cause, but in the central portions of a tumor, the only explanation is a deficient supply of blood. The changes seen, therefore, in tumors after treatment by X-rays or radium, are not specific changes; the necrosis may be due to the rays, but we must remember that it occurs apart from such treatment.

Only a small number of tumors, it is true, undergo these changes without ray therapeutics, and a very large number after the ray treatment, when they even disappear completely. This is what encourages the ray therapist to persevere. The tumor decreases in size, the cells are destroyed or absorbed, and the fibrous tissue contracts. Shaw's summary is, then, that Nature, in her attempts to check and destroy the invading cells of a malignant growth, brings all her inflammatory forces into line. X-rays and radium act by destroying a certain number of malignant cells outright, but they act mainly as a stimulant to the healthy cells of the body to urge them on to still greater inflammatory activity.

While the physician's ideal is prophylaxis, there is something very attractive about this theory of Shaw's concerning radium and X-rays. Aiding Nature against an enemy appeals to one's sense of the fitness of things; there is a certain satisfaction in putting an enemy to rout quite wanting when one has merely evaded him.—*N. Y. Med. Jour.*

TUMOR OF THE TESTICLE.

All tumors of the testicle must be regarded as malignant. The history of previous venereal disease, the association of the swelling of the testicle with an injury, the length of the history dating perhaps from childhood, must not be allowed to outweigh clinical evidence. Always suspect a tumor of the testicle when there is an oval swelling which is not translucent and comparatively painless.

GALL BLADDER MUCOSA.

A gangrenous gall-bladder mucosa is usually easily stripped out (Mayo). It is quicker proceeding than cholecystectomy, and provides more rapid healing than mere cholecystostomy.—*Am. Jour. Surg.*

PATHOLOGICAL CHANGES CONSEQUENT ON VISCEROPTOSIS.

Mr. Arbuthnôt Lane's epoch-making investigations in regard to the mechanism of the various pathological changes induced by visceroptosis and intestinal stasis have quite revolutionized our ideas on this important question.

The three principal phenomena resulting from dropping of the viscera are:—

(a) *The formation of adhesions*—along the lines of resistance to downward displacement.

(b) *The production of kinks*—along the course of the gastro-intestinal tract.

(c) *Gastro-intestinal stasis*—with indigestion, constipation and auto-intoxication.

TREATMENT OF NEVUS.

Bunch has treated over 2,000 nevi by solid carbon dioxide, and believes that this is the best treatment yet devised. The best results are obtained in stellate, capillary, cavernous, and flat pigmented nevi; treatment is less satisfactory for the linear verrucous forms, and least successful in the port wine stains with nodular, irregular surface and warty projections.—*B. M. J.*, August 17th.

AN OINTMENT FOR BURNS AND ULCERS.

Tribune médicale for April, 1912, recommends the following ointment for use in burns, ulcers, and parasitic skin affections of various kinds:

℞ Zinc peroxide	6.5 grammes
Balsam of Peru	35.0 grammes
Petrolatum	58.5 grammes

M. ft. unguentum.

Hydrated wool fat may be substituted in part for the petrolatum.

TREATMENT OF CHRONIC GONORRHEAL VAGINITIS.

Doléris, in *Paris médical* for May 4, 1912, is credited with the following preparation, which is to be applied locally by means of tampons:

℞ Benzoini	5 grammes
Camphoræ	5 grammes
Cubebæ	25 grammes
Petrolati	

M. ft. unguentum.

Injections of a solution of potassium permanganate should also be administered.

CONCERNING THE REMOVAL OF THE PECTORALIS MAJOR
IN THE RADICAL OPERATION FOR MAMMARY
CARCINOMA.

The removal of the sternal portion of the pectoralis major with its fasciæ is generally accepted as an essential part of the technic of the radical operation for breast cancer. It is interesting to note, however, that that acceptance is not universal. Dr. John B. Murphy teaches* that the removal of the muscle is unnecessary. For ten years or more, he says, he has adopted the plan of removing all the "subpectoralis major fascia and fascia between the pectoralis major and minor muscles. We have, therefore, removed all the chains of lymphatics through which metastases occur, and we have accomplished as much for the protection of this patient by the removal of these as we can by the removal of the entire pectoralis major muscle." Murphy says that return of the neoplasm in the pectoral muscle is a rare occurrence, of which he has seen but a single instance.

Murphy also teaches that the distressing edema of the arm so often seen after the radical amputation of the breast, is not a lymphoedema, as most surgeons believe that it usually is, but is due to compression of the large vessels in the axilla by the contraction of newly formed connective tissue in the dead space left after removal of the axillary glands and fat. To prevent this he makes a flap of the pectoralis major, and implants it into the axilla as a protecting cover or pad for the vessels.

Recently Dr. J. W. Kennedy, of Philadelphia, has also uttered a protest against the unnecessary sacrifice of the pectoralis major in the radical operation.** He quotes the late Dr. Joseph Price as advocating the retention of the muscle and as having said that in over 1,200 operations for malignant tumor of the breast he had not seen a single return in the pectoral muscles. Kennedy's observation in several hundred cases of his own confirms Price's experience in this respect.

That the removal of the large pectoral muscle (sternal portion) can be performed without seriously affecting the function of the arm is no excuse for its performance if it is unnecessary. On the other hand, that its removal is somewhat mutilating and somewhat impairs function, is no reason for retaining it if its retention adds to the danger of recurrence. The question is, therefore, important enough to deserve inquiry.

In Paul Bartel's *Das Lymphgefäss-system* we find the following: In 366 autopsies on cases of breast cancer, v. Török and Wittelshöfer

*The Surgical Clinics of John B. Murphy, M.D., W. B. Saunders Co., Vol. 1, No. 1, pp. 6-10.

**Medical Council, August, 1912, p. 283.

found 58 with metastases in the pectoral muscles. (Many of these, however, were probably direct extensions in neglected cases.) In 16 out of 33 breast amputations Rotter found carcinomatous nodules on the vessels, in one-third of which cases these were beneath and in the pectoralis major; in 11 cases these nests were along the superior thoracic artery between the two muscles; twice along arterial branches in the major muscle; twice the tumor was found extending into the muscle. Contrary to Heidenhain's teaching that metasis in the muscle occurs late, Rotter found that in about half his cases it occurred very early.

The purpose of the radical operation for cancer of the breast, as for cancer elsewhere when it can be carried out, is to remove the growth-bearing viscus, the glands into which it immediately drains and *all the lymphatics between the two*. Is Murphy correct when he says that by removing "all the sub (?) pectoralis major fascia and intermuscular fascia between the pectoralis major and minor" he removes "all the chains of lymphatics through which metastases occur?" Bartels says that there is a very important lymph channel, difficult to demonstrate by injection, passing from the mammary gland directly through the pectoralis major to one or more glands between the vessels or also to the infraclavicular glands. Bartels demonstrated by injection two such lymphatic vessels and he urges, as an anatomist, the removal of the pectoralis major in the operation for breast cancer.

Poirier, Cunéo and Delamere also describe a lymphatic channel from breast to retro-pectoral and subclavian glands, through the pectoralis major, but they say it is inconstant. In one case Heidenhain found lymph channels in the substance of the muscle blocked with cancer cells. Rotter's observations have been referred to. It must also be remembered that lymphatics pass from the mamma through the pectoralis to the intercostal and internal mammary glands.

We are forced to conclude that the teaching of Price, Murphy and Kennedy is not supported by pathological and anatomical findings.—*Am. J. Surgery*, Sept., 1912.

RIGHT-SIDED ABDOMINAL PAIN IN WOMEN.

Bland-Sutton says that for several years it has been his custom in dealing with persistent right-sided abdominal pain, in which it is impossible, after careful clinical examination, to decide which organ is at fault, and in which the patient's condition is such as to justify operative interference, to carry out the following plan. After the usual preparations he makes a fairly free incision in the line of the right linea semilunaris and systematically examines the organs on the right side of the abdomen.

This incision allows the surgeon to examine the pelvic organs, including the ureters, the cæcum, vermiform appendix, kidney, gallbladder and ducts, the pancreas, duodenum, pylorus, and liver. It also has the advantage of permitting the surgeon to deal with conditions requiring surgical treatment in almost any of the organs mentioned, and it is by no means uncommon to find two diseased conditions coexisting, and either or both of them may be dealt with through the same incision. It has occasionally happened that in some patients nothing has been seen to account for the pain, and in a few, unexpected pathological conditions have been found. Occasionally an operation has revealed the presence of serious and painful disease in young women who had been treated as hysterical by their parents and by the medical attendant. Years ago he came to the conclusion that no young women should be labelled hysterical simply because our crude methods of clinical investigation failed to indicate the cause of the painful sensations.

APPENDICITIS AND COLITIS.

Dr. R. Toelken (*Deut. med. Wochensch.*, No. 40, 1911), regards the diagnosis of acute appendicitis in the early stage as still a difficult matter. Sonnenburg relies upon blood examinations to distinguish between appendicitis and intestinal catarrhs, and considers castor oil not only as a curative remedy in some cases, but also as an aid in diagnosis. Inflammatory conditions of the adnexa are found to be present in at least one-third of the women admitted to Sonnenburg's division of the Moabit Hospital of Berlin. Acute gastroenteritis with diffuse colicky pains over the entire abdomen, especially tenderness in ileocecal region, due perhaps to the participation of the appendix in the general catarrh, may be confounded with appendicitis. Such cases are probably often regarded as appendicitis cures without operation. In Sonnenburg's clinic, from April 1, 1907, to January 1, 1911, 462 cases of acute appendicitis have been treated with castor oil with rapid improvement, without operation, attack is of slight character, but not the first, operation is done at an and with not a single death. In 23 other cases no relief occurred and immediate operation was resorted to, also without a fatality. Where an early period, since the fact of recurrence shows that there is a mechanical obstruction which demands removal. To obtain some information regarding the later results in the cases treated with castor oil, letters of inquiry were sent to 193 patients and answers received from 96. Of these 7 had had recurrences, 16 had been operated upon at a later period, and 14 still suffered from occasional disturbances. In 62, that is 65 per cent., there had been no return of the disease.

VOLVULUS.

In the treatment of this condition Dr. E. P. Magruder (*Surg., Gyn. and Obst.*, December, 1911), emphasizes the earliest diagnosis and the earliest operation thereafter if there is the slightest chance to save life; careful and rapid technic; re-section—always if the bowel is gangrenous—and an end-to-end anastomosis. In milder cases the gut is simply entered in the opposite direction to the volvulus. Other things being equal, the quickest work is the best, but to make the knuckle leak-proof is worthy of any man's time and of paramount importance. The frequent association of volvulus with strangulated hernia should be always borne in mind, and the coil pulled down and examined or the abdomen opened when in doubt. Further advisable is the removal of the extravasation by gentle, moist sponging if possible; by normal saline or 1 to 10,000 silver nitrate irrigation if necessary; abundant drainage, preferably from the three points, cul-de-sac, right and left iliac fossæ; rectal injections of normal salt solution, intermittently, four to eight ounces at a time every two hours, or continuously, forty drops per minute; bowel movement at the end of the thirty-sixth hour induced by mouth medication, preferably by castor oil, and all food and liquids restricted until then; the bromides for sedatives; the Fowler position, modified to the more and more acute angle and gradually assuming the horizontal position, or alternating the modified Fowler with the Trendelenburg position; the absolute interdiction of opium in any form until postoperative bowel movement.

SURGICAL TREATMENT OF EXOPHTHALMIC GOITER.

Dr. L. Rehn (*Deut. med. Wochensch.*, No. 47, 1911) considers ligation of the thyroid arteries of limited value in Graves' disease, whether employed as a preliminary measure and followed shortly by excision, or undertaken primarily for the purpose of causing shrinkage of the goiter. Owing to the abundant anastomosis of the thyroid arteries ligation of two of these vessels gives unreliable results, while ligation of three or even four has proved unsatisfactory and is attended with risk of injury to the parathyroid bodies. Another disadvantage of this method is the slowness of the effect. Rehn believes that even preliminary ligation is best omitted, since by doing the operation in two stages the danger is not reduced. The three requirements in the surgical treatment of Graves' disease are to prevent loss of blood, protect the parathyroid bodies, and the recurrent nerve. The author employs a large curved incision extending from the sternum below to a point above the operative field the sternohyoid and sternothyroid muscles are divided where the superior thyroid can be easily reached. After exposure of

vided and the sternocleidomastoid forcibly retracted, after which the superior thyroid artery is tied. If the capsule of the goiter is adherent, its separation may give rise to considerable hemorrhage, necessitating immediate ligation of the inferior thyroid. For this reason it is better to first search for the large vessels of the neck and then to proceed to dissect out the goiter, starting at that portion which is in relation with the common carotid and carefully lifting the gland, together with its external capsule, to prevent rupture of the arteries which are often very friable. The inferior thyroid artery should be exposed as far away as possible from the goiter. When found it should be dissected out very cautiously, with special attention to avoiding injury of the recurrent nerve, which crosses the artery. The vessel is best ligated proximally to the place of crossing. After the application of forceps the isthmus is divided; this almost completely cuts off the blood supply to one-half of the goiter, which can now be separated without any fear of hemorrhage, although it may be necessary to carefully ligate all the venous trunks. To protect the parathyroids and prevent entanglement of the recurrent nerve in the scar, a broad strip of the true capsule of the goiter, together with some goiterous structure, is preserved, this being sutured to the capsule of the remaining half of the affected thyroid. The author states that many of the patients can be operated upon under local anesthesia, while in others ether, preceded by subcutaneous injection of pantopon, proved very satisfactory.

TRANSVERSE INCISIONS OF THE ABDOMEN.

Dr. C. F. Denny (*St. Paul Med. Jour.*, Dec., 1911) sums up the advantages of these incisions as follows: 1. One does not have to remember countless different incisions for different procedures. 2. Better access to the operative field. 3. A small or large space is easily obtained. 4. If drainage is needed, a better scar results. 5. Less liability to lose the packing. Less is needed. No shaving of pubic hair necessary.

GYNÆCOLOGY

UNDER THE CHARGE OF S. M. HAY, M.D., C.M., GYNÆCOLOGIST TO THE

THE EXTENDED ABDOMINAL OPERATION FOR CARCINOMA UTERI.

Wertheim's article, translated by Grad, *Am. Jour. Obsts and Diseases of Women*, occupies some sixty pages; being based on the observation of five hundred operative cases and being the work of one

of the masters of the profession it necessarily commands attention. Much stress is laid upon the technique of the operation, careful asepsis, rapid completion of the operation, a minimum loss of blood, careful handling of the organs to be liberated, and the consideration of the heart in reference to the narcosis; all these points being of great moment in an individual already reduced in strength by the disease. The various steps of the operation are fully discussed, and six full page plates graphically present the procedure. The indications for the operation are not given in great detail, but are briefly reviewed. Under the caption of operative mortality several tables are given which explain the cause of the cases of death, whether directly due to the operation or not. In this list peritonitis stands first with thirty-nine deaths. In nineteen of these the source of the infection was determined. When the figures are compared, it is seen that the mortality, at first very high, has gradually diminished, from thirty deaths in the first 100 operations, to nine in the fourth, and fifteen in the fifth. The recurrences of cancer are given considerable space. Among the cases operated in that remained under observation for at least five years, amounting to 250, recurrences were found in seventy-eight cases. The author makes an interesting statement, and one not generally appreciated, when he says that it has become a firm conviction that it is seldom possible to save younger people from the ravages of cancer. It is well known that young animals are more readily inoculable in experimental cancer research than are the adult. The late results and absolute accomplishments are given. A comparison is made between the extended abdominal operation and the vaginal. There then follows a presentation of the reasons for the superiority of the abdominal method. Some three pages of conclusions complete the article. Reference is again made to the necessity of obtaining the cases at an earlier date; that until that is done the percentage cannot be bettered.—*N. Y. Med. J.*

PERSONAL AND NEWS ITEMS

Ontario.

The work of the Byron Sanitarium for Consumptives, London, has been commended by his Lordship Bishop Fallon, from whom a pastoral letter was read in all the Catholic churches of the city. "The Sanitarium," he said, "established mainly through the unselfish efforts of our distinguished fellow-citizen, the Hon. Adam Beck, deserves our sympathy and support."

Dr. W. E. Struthers, Chief Medical Inspector of Toronto's schools, spent some time in a tour of inspection of the medical work carried on in connection with the schools of England, France and Germany. In no instance did he find any system of medical inspection superior to that already prevailing in Toronto, and in most places it was much inferior.

The conditions which caused the outbreak of typhoid fever in Ottawa have been investigated. The report of the engineers shows that for three months of the past summer the people were drinking antiseptically treated sewage, which had leaked from a broken sewer pipe into the pure water intake pipe.

Infantile paralysis is still prevalent in the Niagara District. Several deaths have recently occurred. Every effort is being made to control the spread of the disease.

Mr. W. J. Campbell, Miss Dennand and Miss Lynn had a busy time recently at the Union Station gathering together pupils from all parts of the province west and north for Belleville Deaf and Dumb Institute. The greeting between the pupils and their teachers was most affectionate. When the train left for the east about 300 little ones were in the party.

Dr. Franklin Dawson, 320 Palmerston Road, has returned from England.

There are now 977 tubercular patients in Toronto under the supervision of the city nurses. During August 22 patients were discharged. There were 85 new cases reported in the month.

Dr. and Mrs. Andrew Grant, Beaverton, announce the engagement of their eldest daughter, Helen Elizabeth, to Mr. E. A. Holmes, Toronto. The marriage will take place quietly in October.

Following is the report of the city laboratories by Dr. Nasmith, director. In all, 1,862 specimens have been examined, as compared with 1,784 in August, 1911, as follows:—

	Aug. 1911.	Aug. 1912.
Diphtheria Cultures	942	487
Tuberculosis Sputum	50	78
Typhoid Blood	59	61
Gonorrhoea	5	7
Water	148	347
Milk for Fat	533	621
Milk for Bacteria	47	261
	1,784	1,862

The death rate from typhoid fever in Toronto in August of 1912 is 14 per 100,000 population, or 52 per cent. below the average for August during the past 10 years, and it is 12 per million population, or 49 per cent. below this average for the past five years.

The home of Dr. T. A. and Mrs. Amos, Burford, Ont., was the scene of a pretty September wedding when their only daughter, Lillian Isabel, was united in marriage to Mr. George Edwin Ewing, Taber, Alta., formerly of Richmond, Que.

Dr. T. Alexander Davies, who has been in Europe for four months, returned to Toronto.

Mr. H. S. Mara, of Toronto, received a letter on Saturday, September 14th, from London, England, stating that Dr. R. A. Stevenson, 145 East Bloor street, may suffer the loss of a foot from gangrene. Dr. Stevenson was playing with his granddaughter when he burst a blood vessel, gangrene developing later, and Dr. Cameron, another Canadian who is in London, was not sure when the letter was sent that the foot could be saved.

The returns were as follows for the city of Toronto:—Births, 979; marriages, 445; deaths, 508. In August last year:—Births, 894; marriages, 395; deaths, 448. In July, 1912:—Births, 1,020; marriages, 633; deaths, 631.

Dr. Frederick Adams is remaining in the service of the Health Department of Toronto at a salary of \$2,000. He is to have the title of epidemiologist.

Dr. A. C. Hendrick, of Toronto, spent three months in Europe attending various clinics.

Dr. W. E. Ogden, who has been for some time at the Muskoka Sanitarium, has resigned and is going abroad for study.

Dr. Edward Fidler, of Hamilton, has been appointed to the chair in Pathology in London, Ontario.

Dr. Charles Sheard, jr., of Toronto, has been abroad for some months in London and Paris. He has been doing post-graduate work.

St. Lukes Hospital, Ottawa, is to have a handsome addition. It is expected that the cost will be about \$100,000. When completed the institution will have bedding for 140 patients. The late Dr. H. P. Wright left the hospital \$10,000.

Dr. G. A. Dickinson has been appointed medical health officer for Port Hope.

The new hospital at Penetanguishene was opened recently.

The committee entrusted with the task of raising funds for a hospital at Windsor has not been successful.

Dr. James Douglas, of New York, has donated \$2,500 for the purpose of providing a lecturer on pharmacology and therapeutics at Queen's, Kingston.

Dr. E. B. Oliver has been appointed medical health officer for Fort William.

A new wing of four flats is to be added to the Kingston General Hospital.

The Young Women's Auxiliary of Waterloo have raised \$700 towards improving the Nurse's Home.

Dr. Baruch Tucker, of Allanburgh, has donated \$2,000 to the Welland Hospital.

Armstrong, Ontario, has now a local hospital.

A handsome new wing is being erected to the Toronto Hospital for Sick Children. It will contain four storeys and cost \$120,000.

The Medical Association of Berlin and Waterloo has adopted a tariff of \$1.50 to \$2.00 per visit.

The new addition to the Berlin and Waterloo Hospital will be ready for occupation at a very early date.

In Toronto for the first two weeks of September there had been 38 cases of diphtheria, 11 of scarlet fever, 38 of typhoid fever.

Dr. F. Fenton, Toronto, while in the United States on a motor trip, was taken suddenly ill with ptomaine poisoning and was brought home in a special car. He is improving.

Dr. F. C. Delahey, of Pembroke, to be an associate coroner for the County of Renfrew.

Dr. C. A. Patterson, of Forest, to be an associate coroner for the County of Lambton.

Dr. Walter McKeown, of 7 College Street, has gone to Germany for a two months' holiday. He is accompanied by his son, Mr. W. W. McKeown, and his nephew, Mr. Frank Ryan.

Dr. Newbold Jones, of Toronto, sailed for England a few days ago.

Dr. C. M. Hincks was married to Miss Mabel Millman, daughter of Dr. T. Millman, of Toronto, on 24th September.

Dr. Hastings, City Medical Health Officer for Toronto, says he is not in favor of a municipal general hospital. "Municipalities should confine their effort to preventible and infectious diseases," he says, "but I do not think a general hospital should be run by a municipality."

Quebec.

A short time ago a bullet was removed by a surgeon of the Royal Victoria Hospital, Montreal, from a soldier who had served in the Boer War. The bullet was located an inch from the heart and its position determined by the X-rays.

A man when working on a structure that was being erected over Grasse River, was thrown along the river's bank a distance of 85 feet by means of the pile driver buckling. He was taken to Montreal General Hospital where he was found to have sustained some bruises on his back and head.

The name of Dr. Paquet, M.P., for L'Islet, is mentioned in connection with the position of Deputy Minister of Inland Revenue, which will be left vacant by the resignation of W. J. Gerald, which comes into effect on October 15.

With the object of raising ten thousand dollars a year in subscriptions for the Herzl Dispensary in Montreal, a campaign lasting five days will be started about the middle of October, and those promoting it are sanguine that they will easily collect more than the sum named. The work of the Herzl Dispensary, which was opened at 832 St. Dominique street on 2nd June last, has been steadily increasing, and since then 2,215 patients have been treated and 11,075 consultations held. The dispensary comprises the following departments: Medical, surgical, ear, nose, and throat, and men's and women's diseases departments. Every Saturday morning children are operated on free for tonsillitis, and prescriptions are filed at the nominal fee of five cents to cover the cost of the bottles and labels.

Montreal's birth rate last year was 37.49 per 1,000, and the death rate 21.9, which represents a gain in births of one per cent., and a decrease in deaths also of one per cent. These figures were announced this afternoon by Dr. L. L. Aberge, city health officer, who is including them in his annual report for the year 1911, which is now in the hands of the printer. The total deaths were 9,974, and the births were 17,637.

Smallpox has been making its appearance in a number of places throughout the Province of Quebec.

Dr Pominville has been appointed physician to St. Vincent de Paul Penitentiary, Montreal, as successor to Dr. Allaire.

A quarantine hospital will be established at Grosse Isle.

Dr. S. Bucher has been appointed medical inspector of the civic employees of Montreal.

Maritime Provinces.

In St. John, N.B., recently the following number of contagious cases were reported: Diphtheria, 6; scarlet fever, 14; typhoid fever, 7; measles, 1; smallpox, 1; tuberculosis, 34.

An addition for the care of tubercular patients is to be made to the hospital at Dartmouth, N.S.

The annual meeting of the Nova Scotia Medical Association held in Truro, was a very successful one and a number of interesting health topics were discussed.

The Prince Edward Island Medical Association met recently in Charlottetown. The election of officers was held and Dr. A. A. Macdonald was chosen president.

Western Provinces.

Good progress is being made towards the funds for a new jubilee hospital in Victoria, B.C. The present hospital is now too small.

It has been decided in Regina to issue a monthly health bulletin for the purpose of educating the public.

Dr. C. E. Arthur in his report states that there have been an unusually large number of infectious cases in Nelson, B.C.

Dr. J. O. Lachapele has been appointed surgeon to the North-West Mounted Police at Dawson, Yukon.

The King Edward Memorial Hospital for Consumptives, Winnipeg, was formally opened by H. R. H. the Duke of Connaught.

Two hundred thousand dollars has been furnished for a hospital at Sapperton, B.C.

The Saskatchewan Medical Association met in Moose Jaw on September 3, 4 and 5. Dr. S. W. Radcliffe is president and Dr. A. Wilson, secretary.

Good progress is being made on the construction of the new city smallpox hospital on the North Hill, Calgary. The first storey of the building is finished, and the entire building will be completed within the next few weeks.

The entire staff of Victoria Hospital, Prince Albert, Sask., including the matron and all the nurses has resigned as the result of alleged insinuations against their character.

In a western paper this appears: "Calgary General Hospital is in a bad way and requires treatment. Doctors are powerless to grapple with its ailment, so it is applying to the city council for relief."

From Winnipeg comes the sensational news that a man who had been pronounced dead by a qualified physician, and was laid out for burial, was resuscitated by another physician who removed some of the fluid in the spinal canal, thereby relieving pressure on the brain. The man recovered.

At a council meeting at Prince Albert, Sask., there was a lively time over some allegations that had been made against the Victoria Hospital at that place. Statements were made that it was in a state of disorder. One member of the council offered to bet \$500 he could prove disgraceful actions. The city solicitor snapped the lights off and the heated argument was brought to a close.

A deputation of directors from the general hospital board, of Calgary, waited on the city commissioners on Thursday morning and asked them to consider the matter of framing and presenting to the ratepayers another by-law for the grant of \$150,000 for the needed extensions to the hospital. A by-law to sanction the raising of this sum was defeated on August 23. The board said that provision for a new isolation hospital would also have to be made shortly. The capacity of the hospital was 175 and there were 190 patients in it now. Several others awaited admission but it was impossible to receive them. Something would have to be done to relieve the situation.

From Abroad.

Dr. Wm. D. Haliburton, professor of physiology at King's College, London, said pump feeding, even of criminals, would not be tolerated if British statesmen knew what it was. Its horror and disgust, apart from the physical injury, the professor said, made it a punishment which recalled the worst days of mediaeval cruelty.

Latest reports on the infantile paralysis situation in Buffalo show that there have been a total of 220 cases since the epidemic started a few months ago. Twenty-six deaths have resulted, and 60 per cent. of the survivors are permanently crippled. Four new cases were reported to the Health Department lately. In the August number of the Public Health Report (printed by the United States Government, it is shown that other cities have been troubled more or less by this disease, but Buffalo and Los Angeles, Cal., lead all in number of cases and fatal results. From June 8 to August 17, 226 cases of the disease were reported in Los Angeles, and 43 deaths resulted. In Los Angeles day

and night guards have been established to enforce the quarantine.

New York has an aunt and niece who are Siamese twins in everything except the connecting ligature. They live in the same house, are of the same age (21), have the same tastes and the same features, dress alike, think alike, and work alike in the same factory. They have now got appendicitis alike, and are recovering from operations performed on the same day.

It is reported that Royal College of Physicians, London, has recently awarded the Moxon gold medal for research in clinical medicine to Sir David Ferrier, F.R.S., and the Murchison memorial scholarship to Dr. W. Rees Thomas.

Report from London states that Sir William Ramsay, the distinguished British chemist and physicist, has been recently elected a foreign associate of the Paris Academy of Medicine.

A comparative table of European racial suicide rates has been recently compiled by a German statistician, who finds that the total annual number of suicides per million inhabitants is 238 in France, 228 in Switzerland, 220 in Denmark, 207 in Prussia, 90 in England, 55 in Norway, 29 in Ireland, and only 20 in Spain.

Report from Baltimore on August 13 states that the John Hopkins Hospital in that city has recently received a gift of \$220,000 from Mr. James Buchanan Beady of New York.

It is announced that Dr. S. J. Meltzer, of the Rockefeller Institute for Medical Research, New York, who will represent the United States at the meeting next month in Dundee, Scotland, of the British Association for the Advancement of Science, will on that occasion receive the honorable degree of LL.D. from the University of St. Andrew.

From 1861 to 1871 the birth rate in Glasgow exceeded the death rate by 45,000. From 1901 to 1911 it was 91,000.

In 1662 the physician of Charles II. of England published a book on medical treatment. On gout he has some amusing remarks. He advises the patient to leave off all wine, ale and beer and to drink some cordial which he prepared. He thought the cause was the spermiatic part of the blood.

Report from England announces that an anonymous donor has given 10,000 guineas for the erection of a new physiologic laboratory for the medical faculty of the University College of South Wales and Monmouthshire.

It is announced that the sum of £3,000 has been given to the University of Belfast, Ireland, to establish the Magrath Clinical Scholarship to be awarded to a fourth-year medical student for proficiency in making case-reports.

Interest attaches to the declaration of Prof. Metchnikoff, of Paris,

that the indols and phenols in the large intestine are responsible for the decay of the human system known as old age. He claims that they can only be destroyed by sugar or by his recently discovered sugar-producing bacilli, which he has called "glycobacteria," now only found in the colon of the dog.

Of the late Dr. Maurice Richardson a writer uses the following words: "Bold and progressive, yet conservative. impulsive, yet reliable; modest, yet determined; positive, yet tender; overworked, yet considerate; never too busy nor too tired to help anyone needing his services, Dr. Richardson was a rare man. He was a loveable man. Everybody was his friend. His death has left a void in the medical profession which will be hard to fill, and a void in the hearts of his friends that will never be filled."

Certain experimenters working on the cause of beriberi make this deduction: Led by their observation of the action of charcoal, they suspended the charcoal in 500 c. c. of distilled water, and two c. c. of this mixture was fed daily to four fowls subsisting on highly milled rice; the fowls all remained well at the end of sixty days, thus proving the contention that the substance preventing neuritis remains in the charcoal.

During July and August there was a local epidemic of smallpox of the virulent type in Los Angeles. Of 19 unvaccinated persons who contracted the disease 7 died. In one or two other places in the United States the severe form of the disease has appeared.

An epidemic of poliomyelitis, or infantile paralysis, broke out in Los Angeles in June; it seems to have been reported first on June 10th. Almost immediately cases were noted in the beach resorts near the city and very rapidly the disease was found in other counties. Cases have occurred at Riverside, Ventura, Merced, Sacramento, San Joaquin, and San Francisco counties. A number of places, notably Pasadena, San Diego and some of the San Joaquin valley points, have either taken steps to quarantine against Los Angeles and that section, or have urged, through their respective health officers, that such measures be taken.

We greatly regret to record the death of Sir William Japp Sinclair, J.P., Professor of Obstetrics and Gynæcology at Victoria University, Manchester, which took place on the 21st inst., aged 66. He was born in Kincardineshire in 1846, and had a successful university career at Aberdeen, qualifying as M.B., C.M., in 1873. He served for some time as resident assistant physician in the Aberdeen Royal Infirmary, and at the age of 28 came to Manchester as resident medical officer at St. Mary's Hospital. He was soon after elected house surgeon to the Clinical Hospital for Women and Children. Two years later he resigned and went to Vienna in continuation of his study of obstetrics and

gynæcology before going into private practice. Later he was appointed honorary physician to the Southern Hospital for Women and Children. His professional career was associated with the growth of the Southern and St. Mary's Hospitals, to which he was honorary physician up to the time of his death. He was appointed Professor of Obstetrics at the Manchester University in 1888.

An apparently authentic case of quadruplets was reported last week from Dorchester, Mass. On August 5th Mrs. F. H. Seely, of that town, gave birth, within a period of twenty minutes, to four successive living female infants, weighing respectively $4\frac{1}{4}$, $3\frac{1}{2}$, $3\frac{1}{2}$, and $4\frac{1}{2}$ pounds. The character and weight of the placenta are not stated, but assuming the latter as $1\frac{1}{4}$ pounds, the total weight of uterine contents would have been 17 pounds.—*Boston Med. and Surg. Journal*.

Dr. S. A. Knopf, of New York, has estimated that consumption is annually costing that city over \$2,000,000 in caring for the sick. He thinks overcrowding the main cause.

There are in the United States 116 medical colleges with 17,733 men and 679 women in attendance. Last year there were 4,300 men and 142 women graduates.

In the *Jour. Am. A.* for August 24th, there is an excellent illustration showing the danger of impure milk. A skeleton is dressed up and distributing milk from an open pail. There is in the distance a dirty dairy building and stable, and nearby a privy. There is shown a swarm of flies hovering around.

We have much pleasure in recommending a book called "Grave Dangers in Osteopathic Treatment," by Charles H. Murray, 465 Douglas Avenue, Elgin, Ill.

Investigations have been carried out during the past two years by Neustaedter and Thro, based on observations that acute anterior poliomyelitis is mainly a disease of early childhood; that it is most prevalent in the dry and dusty seasons of the year; that its distribution is independent of local conditions; and that it successively attacks children of different families living under the same roof. With the further knowledge that the virus of the disease has been transmitted from one ape to another by inoculation from the nasal mucous membranes of apes already suffering from the disease, the writers suspected the transmission of the disease by dust, and its entry into the body by the respiratory tract.

The British Medical Association has issued an appeal for funds. The membership fees and the Journal income from advertising do not seem adequate for the great work of the Association.

The Hospital at Kongmoon has been erected at a cost of about \$8,000 gold. Three thousand was given by the ladies of St. Paul's

Church, Montreal, and to them was given the privilege of naming it, the Marian Barclay Hospital. Three thousand dollars more was given by F. M. C. and the balance raised on the field from fees as Customs physician. The furnishings for the women's wards have been given by friends at home, while for the men's they have been given in part by St. Andrew's Church, Huntingdon, the money for the balance being raised by a friend.

OBITUARY

D. M. MURRAY.

Dr. Murray, a son of Robert Murray, of Stratford, was drowned while bathing in Lake Erie. He had been practising in Brooklyn, N.Y. He left a widow and one child.

N. B. H. DEAN.

Dr. Dean, of Brighton, Ont., died at his home in his 72nd year. He was a graduate of Victoria University. For a time he was located at Beaverton and then entered service in the American Civil War. At the close of the war he entered the Military College at Kingston, from which he graduated. He took an active interest in social questions and was a member of a number of societies.

W. H. MACDONALD.

Dr. Macdonald, of Antigonish, N.S., died in the Homewood Sanitarium, Guelph. He was a graduate of Harvard University of 1862. He then took up his father's practice. He was in his 78th year, and leaves a widow and seven of a family.

HUGH A. STEWART.

Dr. Stewart died at his home in Portage la Prairie. He was born in Nairn, Ont., in 1863. He was M.A., of Manitoba University, and M.D., of Toronto University. For a time he practised in Griswold, Man., and then located in Portage la Prairie. He is survived by his widow and four children.

G. E. MARSHALL.

Dr. Marshall died suddenly of heart failure while bowling. He was born in Cavan in 1864 and graduated from Detroit and practised for some years in Michigan. He returned to Canada and graduated from Trinity, and for the past seven years has practised in Peterborough, where his death occurred.

WILLIAM F. BARNES.

Dr. Barnes died at New Glasgow, N.S., in his 26th year. He was a graduate of Dalhousie University. He formerly was in practice at Hopewell, N.S.

T. C. WARD.

Dr. Ward, of Napanee, Ont., died quite suddenly. He was very well known and had an extensive practice. He leaves a widow and four children.

ALLAN CAMERON.

In the death of Allan Cameron on 6th September, Owen Sound lost one of its oldest and most highly respected residents. Dr. Cameron, who was aged eighty-three, went to Owen Sound in 1854, when the town was the merest backwoods hamlet. Since that time he has been one of the foremost citizens and was venerated and esteemed by everyone. For the past year has been in failing health, but had kept up his large practice until within the last few months, when his failing health practically confined him to his home.

Dr. Cameron was connected with several fraternal societies, more particularly with the Masons, in which he had attained to an advanced degree, and in which he was Provincial Registrar for some time.

He is survived by Mrs. Cameron, four sons and two daughters.

T. S. DICKIE.

Dr. Dickie was professor of anatomy in the Medical College of the Western University, London. His dead body was found in the laboratory on 23rd September by the janitor. He was in his 30th year, and came to London from Belfast a short time ago. He committed suicide by turning on the gas. He had been a brilliant student. He was subject to spells of melancholy. He left a note giving the address of his mother in Belfast.

BOOK REVIEWS

DISEASES OF CHILDHOOD.

Occasional Papers on the Prevention of Some Common Diseases in Childhood, by J. Sim Wallace, D. Sc., M.D., L.D.S., Dental Surgeon and Lecturer on Dental Surgery and Pathology, London Hospital; Hon. Dental Surgeon, West End Hospital for Nervous Diseases. London: Bailliere, Tindall and Cox, 8 Henrietta Street, Covent Garden; 1912. Price, 7s., 6d. net.

Several of the articles in this volume have already appeared. Some of them have been read at conventions and now published, while a few are new. The volume is a very useful one. Every chapter bears the stamp of the most careful study and a good deal of original work. He emphasizes the folly of feeding a child that is leaving off the breast pap food. He contends that when it is nine months or a year old that it should be given food to eat. He argues that no animal is fed on pap when it is weaned, nor is the baby of the savage mother. His position in this regard seems well taken. Another position which the author takes is that dental caries is not the result of heredity as so often taught, but the result of errors in diet. The food should be firm and somewhat fibrous in character. This encourages mastication which in turn gives health and strength to the teeth. Then, again, mastication induces a free flow of saliva with its chemical qualities and this is forced between the teeth in the act of chewing the food. The author strongly contends that with every meal there should be enough of the cleansing or fibrous food to act upon the teeth. On another point the author is rather radical. He offers very good reasons for his position that adenoids are mainly due to cold and damp, and holds that the open window advocacy of recent times has had much to do with this condition. Children sleep in cold rooms with open windows and develop adenoids. He does not deprecate fresh air, but it must be dry and moderately warm. The author contends that good teeth and good digestion go to prevent the entry of infections into the system, and to establish a resisting immunity. On the prevention of dental caries he has some very sound views. Insistence on breast feeding, the use in early years of life of foodstuffs which require efficient mastication, and the use of carbohydrates which are not easily fermentable, are among the means cited as preventing dental decay. The book is so full of information that every practising physician ought to carefully read it. For this reason we very cordially recommend the book.

PROGRESSIVE MEDICINE.

A Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by L. F. Appleman, M.D. Lea and Febiger, Philadelphia and New York. In paper, \$6 per annum. Vol. III., September, 1912.

This volume treats of diseases of the thorax and its viscera, dermatology and syphilis, obstetrics and diseases of the nervous system. The contributors are William Ewart, London; W. S. Gottheil, New York; E. P. Davis, Philadelphia, and W. G. Spiller, Philadelphia. All the articles are of a high order of merit and will repay a careful perusal. This is a splendid series.

CANCER RESEARCH.

Fifth Scientific Report on the Investigations of The Imperial Cancer Research Fund. Under the direction of the Royal College of Physicians of London, and the Royal College of Surgeons of England. By Dr. E. F. Bashford, General Superintendent of Research and Director of the Laboratory. London: Published by Taylor and Francis, Red Lion Court, Fleet Street, E.C.; 1912. Price, 5s.

This work is going on well under the management of a very able committee. This volume deals with a number of problems of an interesting character such as, (1) The reaction of animals to tumors of various types of growth; (2) Simultaneous inoculation of two tumors of different types; (3) Can animals bearing progressively growing tumors be protected against re-inoculation? (4) Attempt to arrest the development of progressively growing tumors. These problems are very carefully and fully discussed on a wealth of experimental research that goes to prove how necessary a large fund was to carry on this work. On this occasion, as on former ones, when we review reports we have only words of unstinted praise for what is being done. The contributors of this volume are Dr. B. R. G. Russell, of London; Dr. W. H. Woglom, of New York; Dr. C. Da Fano, of Milan, and Dr. S. Higuchi, of Tokyo. The report is profusely illustrated.

FORMULARY AND INDEX OF PHARMACY.

Prescribers Formulary and Index of Pharmacy, by Thomas Pugh Beddoes, M.B., B.C., F.R.C.S., Surgeon to the London Skin Hospital, Surgeon to the Westminster General Dispensary, Fellow of the Royal Society of Medicine, Fellow of the Tropical Society. London: Bailliere, Tindall and Cox; 1912. Price, 2s. 6d.

This little book gives the preparations and their doses. It then gives the preparations under the headings of oils, ointments, washes, etc., and finally gives the leading diseases with the groups of drugs of use in these. It is of small pocket size and well bound. It is a most useful pocket manual.

MISCELLANEOUS MEDICAL NEWS

BORDER TOWNS MUST IMPROVE SEWAGE SYSTEMS.

Hon. W. J. Hanna has issued a warning to all municipalities situated along border streams to get ready to improve their sewerage systems, so that untreated sewage would not be allowed to pour into the streams and pollute the water.

The situation arose out of an application by the city of Windsor to the Provincial Board of Health for approval of certain extensions to the municipal sewage system. These extensions carried the sewage into the Detroit River. This work had never been approved by the Provincial Board of Health, and when the city tried to sell its bonds they were found to be invalidated. An application for approval was made to the Board hence Mr. Hanna's statement.

"The Board will meet the request in this case," said Mr. Hanna, "but it was made clear to the city of Windsor—and to all cities and towns along international waters—that they had better ascertain at once what steps will be necessary and what plans should be adopted to take care of sewage without polluting those waters.

"It was pointed out," he continued, "that it is reasonably certain that within a short time an international commission will have powers and will exercise them to completely prevent cities and towns doing this. And these places might as well proceed to provide against that contingency."

The Minister's remarks probably indicate that septic tank systems will have to be generally adopted.

MEASLES GERM DISCOVERED.

Dr. John F. Anderson and Dr. Joseph Goldberg, of the Public Health Service, Washington, have succeeded in inoculating monkeys with measles, something said to be hitherto unknown, and in the course of their researches have made discoveries which promise to make the malady less general.

The investigators found that measles are not carried, as has been supposed by the dry particles of skin which brush off the body of a patient, but that the germ are conveyed in the breath and secretions from the nose and mouth and in the blood.

The germ was found to be so minute that it passed through the pores of a porcelain filter. The inability of scientists to inoculate lower animals with measles has retarded the work of discovering an antitoxin.

OPTOMETRISTS STILL SEEKING LEGISLATION.

Undaunted by the defeat of bills brought before the Provincial Legislature at its last two sessions, the Optometrical Association, of Ontario, decided at its semi-annual meeting in Broadway Hall, Toronto, to continue its efforts to secure the passage of the desired Act. Last session, Mr. T. R. Whiteside, M.P.P., introduced the bill to regulate the practice of optometry. It was said that the association had records of malpractice by incompetent opticians and so-called eye-specialists which would be submitted to the Government in the hope of showing the need of legislation to protect the eyesight and also the purses of the public. Some persons, it was stated, advertised very cheap goods in order to get people to their stores and then sell them very expensive spectacles on the plea that specially ground lenses were required.

The report of the secretary-treasurer, Dr. J. C. McLean, showed that the finances of the association were in satisfactory condition. It was decided that the annual meeting for the election of officers should be held on the third Wednesday in January. Dr. W. E. Fannon, the president, occupied the chair and the meeting was largely attended not only by Toronto optometrists but also by members from other places in the province.

PHYSICIANS DO NOT ADVERTISE.

When the advertising man called upon Dr. Smith to solicit business for the paper which he represented he was told, rather loftily, that it was against "professional ethics" to advertise. But when the cub reporter stopped at the doctor's office two hours later for news items he received the following:

Dr. H. Johnson Smith is moving his office from 1 Bradley block to 146 Main Street, where he will have an entire suite of rooms. This change was imperative on account of his rapidly increasing practice.

Mrs. Alice Jones of North Tenth Street fell upon the pavement near her home this morning, sustaining a broken wrist. Dr. H. Johnson Smith reduced the fracture.

Dr. H. Johnson Smith has returned from a professional visit to Snyderville.

Wellesley West, the well-known manufacturer, who has been ill for several weeks, shows marked improvement to-day. His physician, Dr. H. Johnson Smith, believes he will soon be convalescent.

Dr. H. Johnson Smith will address the members of the City Medical Association this evening.

Mrs. A. J. Peterson of Elm Street underwent a delicate operation at the city hospital this morning. She is resting easily this afternoon, and according to her medical adviser, Dr. H. Johnson Smith, unless unforeseen complications develop should be on the road to recovery soon. The operation was very successful.—*Brooklyn Life*.

THE VALUE OF HUMAN LIFE.

The National Conservation Congress, meeting at Indianapolis in October, will take up as this year's programme the conservation of the world's greatest resource, human life. With the present population of the United States, it is estimated that there are always more than three million persons on the sick list. The loss to the country in earnings is more than \$500,000,000 a year. Medical attendance, medicine, nursing, etc., is estimated to account for a sum almost as great each year.

Perhaps a billion dollars would not cover the annual cost of illness in the United States and the relative cost per head would be about the same in this country. The point to be noted is that by far the major part of the diseases are avoidable, and that the economic loss to the country is, to that extent, also avoidable. This is the opinion given by men most competent to judge after years of investigation.

It is strange that the popular idea of conservation is associated with timber, fisheries, soil and every kind of natural wealth except human life. The Canadian Commission on Conservation has fallen into no such error for, from the beginning, it has held an organized section dealing with public health problems, and some of its most lasting work has been in this department.

ADVICE IN PAMPHLETS BY BOARD OF HEALTH.

"Never exploit the baby as an attraction for friends and relatives."

This is only one of many wise counsels in a booklet entitled, "A Little Talk About the Baby," prepared by Dr. Helen MacMurchy and published by the Provincial Health Department. And the book is published in the interests of the baby, not of the friends and relatives. It is intended for general distribution so as to educate the mothers of Ontario how to bring up children worthy of the Province.

"Sewage Disposal for Residences," "Mosquitoes and How to Prevent Them," and "Facts About Flies," are other publications by the Department intended to assist general education in matters of public health.

The regulations of the Provincial Board of Health have also been published in attractive pamphlet form. All these publications may be secured by application to the Provincial Medical Officer of Health.

DEATH FROM DISEASE.

The number of deaths in the Province of Ontario shown in reports to the Medical Health Department is alarmingly large for August this year compared with the record for the month of August, 1911. Deaths from all classes of disease in August number 304, as against 118 for the same month last year. There were 2,005 cases of communicable disease reported last August, against 613 last month. Among medical month this is no certificate of honor for the new health regulations that recently separated the province into districts and which were to be so supervised that sanitary methods would reduce the death rate from disease.

The comparative statement is as follows:

DISEASE	CASES	DEATHS	CASES	DEATHS
Infantile paralysis	15	8	5	2
Spinal meningitis	13	13	2	2
Small pox	31	..	14	..
Scarlet fever	140	10	112	3
Diphtheria	193	27	141	12
Measles	64	3	7	1
Whooping cough	348	30	40	4
Typhoid fever	1,022	94	210	27
Tuberculosis	179	119	82	67
Total	2,005	304	613	118

ASYLUM INMATES TO WORK BIG FARMS IN ONTARIO.

Through the asylums branch, the Provincial Secretary's Department is going into some big agricultural improvement schemes which involve the reclamation by drainage of several large tracts of waste land in connection with the institutions at Brockville, Orillia, and Whitby. The project is part of a plan to build up around each institution a great farm which will provide healthy work for the inmates, and make the institution self-supporting from the point of view of food supply. At Brockville, 300 acres, mostly swampy land, have been secured.

The different farms will specialize in different lines. At the Guelph Prison Farm and at Brockville, dairy produce will be the specialty. At the Whitby farm special attention will be given to raising butcher cattle.

In connection with the farms, a system of accounting has been arranged which will give the exact expenditure upon and profits from each field.

RESEARCH HOSPITAL AT CAMBRIDGE.

In connection with the recently opened research hospital at the University of Cambridge, England, *The Lancet* directs attention to the need of "seats of learning" extending their scope beyond simply discovering new methods and advancing the results of probably unorganized investigation.

"The function of a university," says *The Lancet*, "surely consists not merely in cultivating and bringing under the sway of knowledge fresh provinces from the lark continent of ignorance. In medicine particularly a great field lies awaiting exploration. In such exploration more reliance must be placed on the means universally employed to-day in all progressive movements, viz., the organized, concentrated and systematic following up of special investigation into particularized problems, rather than on the method more usual in the past of merely collecting the spasmodic and often accidental observations of individual workers.

"The Medical Faculty of the University of Cambridge will certainly find a useful ally in this part of its work in the new Cambridge Research Hospital, where the relief of sufferers from those chronic disease which are as a rule, unduly neglected by research will be combined with a systematic and collective study of the morbid conditions themselves. Not only will sufferers in the future receive increased benefit, but preventive measures will be evolved, thus lessening the sum total of suffering, and perhaps, in the case of some diseases, altogether abolishing it.

"The subject at present occupying the attention of the Committee for the study of special diseases, whose work will soon be carried on with all the faculties that the new hospital will place at its disposal, is the pitiable condition of sufferers from rheumatoid or osteoarthritis and its congener, chronic gout. We suggest to medical men that if the attention of their well-to-do patients afflicted with these conditions, as well as of their friends, were directed toward the work, a sum adequate for the endowment and equipment of the hospital might easily be raised."

A FEW SIMPLE HINTS.

Hot lemonade is one of the best remedies in the world for a cold. It acts promptly and effectively, and has no unpleasant after-effects.

To remove a fishbone from the throat, cut a lemon in half and suck the juice slowly. This will dissolve the fishbone and give instant relief.

The habit of biting the nails may be conquered by will power in an older person, but with children cut the nails very close and dip the ends of the fingers in quinine or a little extract of quassia.

A wise precaution before administering or taking medicine is to look twice at the label and the dose, once before pouring it out and once afterward. This is a sort of double security against mistakes. Solutions should always be thoroughly shaken before being uncorked.

It is not generally known that the ordinary brown kitchen soap is a strong disinfectant. A doctor who has spent most of his life in a laboratory succeeded in hatching out bacteria in every soap, except that which contained lye, in however small a quantity. Lye is an ingredient in all brown and yellow common soaps, and for this reason these soaps have a distinct disinfectant value.

MEDICAL MEN AND DRUG HABITS.

Medical men are often blamed for being the means of starting drug habits in their patients, by prescribing morphia and such-like drugs too openly and freely. There can be no doubt that in some cases an individual makes his first acquaintance with opium and cocaine through a medical prescription, but we believe that physicians in general realize the danger incurred in their liberal exhibition, and use every means in their power to prevent the formation of a habit. The number of victims of any given drug habit, who can ascribe their downfall directly to medical prescriptions would be relatively small. To the present system, which makes the patient the owner of a prescription, can be attributed some of these disastrous results, and it can be doubted whether a physician should ever write a prescription for morphia or cocaine, for it would remove a real danger if he were to administer such remedies himself and trust nobody else. With regard to cocaine, in America, and to a less extent in this country, this drug is an ingredient in many quack medicines, a danger of which the public are at last becoming aware. Vigorous measures have been taken under the pure food and drug Act of America, to guard against the use of cocaine in quack compounds, but until every patent preparation has an accurate list of its ingredients on the label, there will always be a loophole for escape of the unscrupulous purveyor of medicines.—*Medical Press*.

THE SWISS NATIONAL ANTI-CANCER ASSOCIATION.

On May 1st, 1910, there was held at Berne, Switzerland, a reunion of physicians to discuss the problems associated with the increase of

cancer in that country. This society, composed of physicians, sanitarians and publicists, has issued a circular pointing out that cancer is probably proportionately more prevalent in Switzerland than in any other country, and urging upon the people the importance of combating the disease by every known means.

INFANT MORTALITY.

Jacobi believes that "every case of death from lack of breast milk should cause a trial for homicide against a doctor or midwife or mother." To the prevailing notion that many women cannot nurse their offspring, he answers that "one hundred per cent. of our women can be made to nurse, even the fashion and flower of the land." The great fact to be borne in mind in considering this matter of infant feeding is that *the maternal milk protects the nursling against disease*. This fact throws upon those who advocate artificial feeding, which affords no such protection, the responsibility for the infant's death where the maternal milk would have prevented it. The profession as a whole must realize its moral responsibility and use its influence to prevent wanton sacrifice. How does milk acquire its protective virtues? Because of the state of overactivity of the ductless glands, particularly the thyroid and adrenals, in the maternal organism, and the direct participation of their internal secretions in all immunizing functions. In French cities the death rate among breast fed foundlings is from thirty-two to thirty-five per cent. Among artificially fed infants of the same class it is from fifty to eighty per cent. Three decades ago the mortality among foundlings in New York city was 100 per cent. until wetnurses were provided. Jacobi points out that during the siege of Paris, while the general mortality was doubled, that of infants was lowered twenty-six per cent. because mothers, through the lack of cow's milk, were driven to nurse their babies. During our famine of 1860, in the cotton district, the mortality among infants was reduced one-half, because the deficiency of food forced all the mothers to nurse their babies. Other facts are as follows: Intestinal disease killed 7.09 per cent. of breast fed infants in Berlin during 1895 and 1896, while those artificially fed gave a mortality of 38.6 per cent., other diseases showing an equal suggestive ratio; bronchitis and pneumonia from 5.6 to 39.6 for example. Infants below one year are but slightly susceptible to certain infections. Ehrlich and Brieger demonstrated in 1892 that certain toxic substances, ricin, abrin, and tetanus toxine, injected into mice endowed the milk of these animals with the power of protecting the offspring of other (unprotected) mice against the action of these poisons. In 1896, Schmid

and Pflanz, having injected blood serum derived from a parturient woman who had received injections of antitoxine into guineapigs, found these animals immune to fatal doses of diphtheria toxine. In 1905, La Torre, having administered diphtheria antitoxine to wetnurses, ascertained that the blood of their nurslings increased antitoxic power.—*New York Medical Journal*, July 6, 1912.

THE CANADIAN PUBLIC HEALTH ASSOCIATION.

The meeting this year in Toronto held on 16th, 17th and 18th of September was a marked success. The attendance was large, enthusiastic and disposed of some important business.

Dr. J. H. Elliott, of Toronto, gave a very able paper on the subject of tuberculosis. In the first place it was necessary to take steps to prevent the entry of the bacillus into the system, and in the next place to fortify the system against the disease. Milk should be certified, children should be taught hygiene, the disease should be notified and there should be some system of isolation.

Dr. G. D. Porter in his address spoke strongly against the use of proprietary and patent medicines. He said that Canadians imported \$9,000,000 worth annually from the United States. Much of this was spent on consumption lines. These so-called cures were of no value and many of them were injurious because of opium and alcohol in them. The people should spend their money in good food. He contended that there should be laws calling for notification. That the government should aid in the treatment of tuberculosis and that there should be sanatoria scattered over the country for the use of those suffering with consumption.

Dr. R. W. Bruce Smith gave an address on hospitals. He condemned municipal hospitals. They were the cause of much trouble, poor work and such like, due to the system of ward politics which was constantly interfering with their management. In some cities in the United States there have been some very expensive experiences with the attempt to run hospitals by the municipalities. In this country there has not been so much of this. He contended that there was no private giving to a hospital owned by a municipality. The ideal place is where people of public spirit give of their time and their means for the management and support of hospitals, and the municipalities pay for the care of their poor in these institutions. He thought that all patients paying for their own maintenance should have the privilege of selecting their own medical or surgical attendant. He pointed out that in Ontario the recent Act protected hospitals against municipalities that might wish to evade their duty and enabled hospitals to collect a rate of one dollar a day for the maintenance of poor patients.

Dr. W. A. Evans, of Chicago, gave a lengthy address on the value of a health department. He held that we cannot value human life by a monetary standard. It was not fair to say that a person could earn a certain amount of money and in this way fix the value of the life. There was the value of the life to the family and the community in a social, intellectual and moral way that must not be ignored. He pointed out the splendid work that had been done by wise health measures in Cuba and Panama. He directed attention to the advantage of having the reputation of being a healthy city as compared with that of being unhealthy. He called to mind the disastrous effects the epidemic of small-pox had on the business of Montreal, and results to San Francisco of trying to conceal the presence of the plague some years ago. He was glad to observe that Canada was waking up in the matter of public health and was making good progress. He referred to the work of Bismarck in Germany, who said that if the country had no great natural resources of coal, iron, timber and such like to sell, it still could produce healthy and educated people, which was a nation's greatest wealth. Bismarcks were now needed to induce other countries to take the same view. It was the duty of every country to see that children had the chance of being well and healthily born.

Dr. P. H. Bryce, of Ottawa, discussed the means of preventing impairment of health and physical degeneracy from industrial life in cities. He spoke of the tendency of people moving towards cities and leaving the country. There was danger in the gathering together in cities of so many without capital and dependent solely on their labor for a living and many of these foreigners. Days of trade depression may come again, and these people may be reduced to extreme want. He thought that the Canadian Public Health Association had a work ahead of it in directing thought to these problems.

Dr. Adam H. Wright gave a paper on the Dust Problem. He claimed that merchants suffered a loss of \$6,000,000 a year from dust; that householders lost to the extent of \$3,000,000, and the people in sickness had a loss in time equal to \$4,500,000. He claimed that the dust carried by the winds caused much of our sickness, such as colds and catarrhal diseases.

Dr. C. A. Hodgetts, of Ottawa, argued for a National Health Bureau. He claimed that there was much for a Federal department of health to do in addition to anything that might be done by municipalities or provinces. The great object was to prevent disease rather than cure it. But this should go further. There should be some system worked out for the whole Empire. He claimed that we should watch Britain's public health work in order that we might avoid some of the blunders that had been made there.

Dr. G. G. Nasmith, of the Health Department, Toronto, stated that the reduction of the water used in the milk sold in Toronto, due to inspection, saved for the people last year \$300,000, which they would have paid for water instead of milk. Others spoke on the need for supplying milk in bottles and discontinuing the open can.

Mr. John Race, bacteriologist, stated that it was never intended that the Toronto filtration plant should be watertight. This would be an impossibility. Some of the speakers preferred a pressure filter to a slow sand filter. Dr. Bryce condemned the use of hypochlorite of lime. He did not think it rendered the water safe. He regarded it as mere hypocrisy.

Archdeacon Cody, of Toronto, gave a stirring address on the child problem. Among other things he contended that this was a fundamental question and lay at the very root of health progress. Neglect of the children was a suicidal and criminal policy. Much had been said on the rights of men and women, and it was time now that something should be said on the rights of children. Among those rights might be mentioned those of being well-born, well educated, maintained in health, the right to live and play and enjoy themselves. But to do this parents must be properly housed, and here it was that municipalities had a great duty to perform in the way of controlling slums. He condemned apartment houses as having a downward tendency in the housing problem. He said that nothing that would save the children was too costly. He contended that much of the battle against drunkenness and vice must be fought out on the ground of the proper training of the child.

President Falconer spoke of the great work that was being done by the man in the laboratory that was making the work of the health officers a possibility. It was this silent and scientific work that had wakened up public opinion that was now urging forward the public health officer.

Rev. Father Minehan, Rabbi Jacobs and others thought that a little benevolent despotism in the way of compelling mothers to give proper attention to their children would do good. They thought that wealthy men might give more liberally to the needy, or be compelled to do so.

Sir George Newman, Medical Inspector of Schools in Britain, contended that adult and child health should be under one head and one department. The medical health officer was the proper person to look after all health interests. In England medical inspection of school children was compulsory on the local education boards. No town or village could escape the operation of the law. Last year over 2,000,000 school children had been inspected, and 988 doctors had been employed in the work. When defects were found the homes were visited.

Mr. J. P. Downey, Superintendent of the Asylum at Orillia, thought that there were about 6,000 mental defectives in Ontario. Of this number about one-third was now receiving care in some institution. In the Orillia Asylum it was noticed that some families yielded several inmates. In some cases as many as five came from one family. He thought commitment in an asylum should be a bar to marriage unless the party could furnish a certificate from two medical men that the cure was complete. He referred to the proposition of sterilizing degenerates and that of compelling those who propose getting married to furnish evidence of health, but he was of the opinion that such harsh measures would not do good and was inclined to the view that discussion and education was the safe method.

Dr. Goodechild, of Toronto, gave a paper on ventilation in which he contended for the open window as the best yet devised.

Mr. W. W. Lee dealt with the immigration question and how best to assimilate the new entrants into the country. He thought that in the past enough attention had not been paid to the medical and hygienic aspects, and too much to social and political. He urged that immigration be taken out of politics and made a branch of the civil service. Dr. W. G. Home, of Victoria, B.C., and Dr. C. A. Hodgetts, of Ottawa, discussed the subject, and thought that we should not let in more than we can properly care for and absorb.

Dr. G. G. Nasmith, Toronto, made out an excellent case for the use of municipal laboratories. He pointed out in what ways they repaid the citizens many times over.

Mr. A. J. Green, London, Eng., and Miss Rogers, Toronto, went very fully into the value and management of the open air school. They pointed out in what ways this method was of value and the good results that had already been derived from the work in this field.

Mr. J. H. T. Falk, Winnipeg, was very interesting on the prevention of social misery. He contended that social reform could do much to improve the condition of the workman. He did not believe that suffering was the result of some wrong done by the person, but often from bad social conditions.

Dr. T. H. Whitelow, M. H. O. of Edmonton, contended that the utmost care should be given to the milk supply of every municipality. He thought the municipalities should regulate this and see that proper care was taken to prevent poor and dirty or diseased milk getting on the market.

The following message to his Royal Highness the Duke of Connaught was adopted: "The Canadian Public Health Association beg to present to your Royal Highness an expression of deep appreciation for your Royal Highness' continued interest in the great question of public health."

A smoker on the evening of the 16th, a garden party on the grounds of Sir Edmund Osler on the afternoon of the 17th, a dinner on the evening of the 17th were among the functions of the gathering, and a musicale at the King Edward given by Col. and Mrs. A. G. Gooderham.

Two resolutions were passed to the effect that there should be a federal department of health and that it should be made unlawful to discharge raw sewage into a river or open body of water.

Dr. J. W. T. McCullough was elected president. His Royal Highness Duke of Connaught was again made patron. The honorary vice-patrons are Lord Strathcona and Hon. R. L. Borden. The secretary is Major Lorne Drum and the treasurer is Dr. George D. Porter.

The next place of meeting is Regina.

CROSS-EYED MEN BARRED.

Men who squint or are cross-eyed can no longer become engineers, firemen, trainmen, or brakemen on Canadian railways. Following its recent judgment the Railway Commission has issued a series of uniform rules governing the determination of visual acuity, color perception and hearing of railway employes, and among them is a clause banning the squinting or cross-eyed men.

This is not the only defect barred. Applicants must not be accepted if they use glasses for near vision, though when the distant vision of an employe can be improved by good glasses, their use is encouraged. Color blindness is also barred, and good hearing powers are stringently insisted upon. Applicants must be able to hear and repeat names and numbers spoken in a conversational tone at a distance of twenty feet.

Employes must be re-examined in all these particulars after any illness or accident which might have affected them, as well as before promotion.

INSANITY ON THE INCREASE.

Dr. Forbes Winslow, the well-known alienist, speaking of the statement of Dr. Mott at the Eugenics Conference, that the increase of lunacy is more apparent than real, said that investigations made by him during the last forty-five years in various parts of the world convince him that lunacy is making uninterrupted progress and that the only goal to be reached is world-madness in the not distant future.

"Dr. Mott bases his figures and conclusions mainly on a study of the pauper class in London," said Dr. Winslow recently. "Although there is more crime, lunacy and drink in London than any city of the world, I would be the last to take statistics of London as a basis for an opinion.

"In 1859 there was one lunatic for every 536 of the population.

To-day there is one in every 275. In France, sixty years ago, there was one insane person in every 750. To-day there is one in every 300. Switzerland, in which I made an official investigation last year, shows also an alarming increase. Last year in England the figures were the highest for the decade, 2,604, as opposed to 2,521. The question is of vital importance, not only to the present generation, but to the generations unborn.

“From the point of view of comparison the increase of the population has nothing to do with the increase of insanity in England. The cities taken in the order in which insanity is most prevalent are London, Bath, Bristol, and Brighton. There is less insanity in Bournemouth than in any town. Why, I do not know, except that Bournemouth is exceptionally healthy.

“Among the uncivilized races insanity is practically unknown, but where competition is great and gigantic mental efforts have to be made to keep up with events and where temptation is thrown in the way of mankind the increase is very real.

“The chief cause of the increase is shown in the statistics to be caused by drink. Twenty per cent. of all lunacy in the world is due to drink, and more than 25 per cent. in London.

“Other causes are hereditary and injudicious marriages. Those who have been insane once should not be allowed to marry. Further, to check mental degeneration there should be immediate legislation for the compulsory confinement of habitual drunkards and for the establishment of halfway houses where those suffering from acute but curable insanity could be placed instead of being incarcerated in lunatic asylums.”

The annual inspection report of the Commission just issued shows 135,666 insane confirmed in England and Wales on January 1 last. Patients not in hospitals numbered 11,136.

MEDICAL PREPARATIONS, ETC.

CELL NUTRITION.

All classes of cells are made to live and perform their several functions by the phenomena of cell nutrition; and whenever malnutrition, intoxication, or other causes, impair the special function of cells, they do so by producing some intrinsic metabolic defect. Agents which will directly or indirectly repair metabolic defects are true cell tonics. A very large experience and a close and careful clinical study of all pathological conditions show conclusively that Bovinine is an ideal cell tonic and food. It stimulates the cells to healthy proliferation. It tones

the newly born cell, giving it a full and normal power of absorbing, and immediately meets this demand by supplying a full and complete nutrition.

THE DENVER CHEMICAL COMPANY.

The Denver Chemical Mfg. Co., manufacturers of Antiphlogistine, are to be congratulated on securing the services of Mr. Harold B. Scott as Manager of the Company, to succeed J. C. Bailey, who is retiring from that position.

Mr. Scott is a bright, energetic young man, a graduate of Yale University with the degree of A. B. Upon his graduation from college he entered the commercial world where he has enjoyed a wide, varied and successful experience in developing one of the great industries of our country. He is peculiarly well fitted for the management of a proprietary house, and his connection with Antiphlogistine will doubtless lead The Denver Chemical Co. to spell success with larger letters than ever before.

VACCINES FOR TYPHOID FEVER.

To the readers of THE CANADA LANCET:

About six years ago the writer began to use vaccines in the treatment of typhoid fever. Since that time he has thus treated more than one hundred cases and has obtained numerous articles upon the same subject written by physicians in various parts of the world. It seems possible, however, that some may have escaped notice. He also realizes that many of the profession may have treated some cases without reporting them. A paper upon the subject is now in the course of preparation. In this it is earnestly desired to incorporate reports from a large number of cases, good, bad and otherwise. He accordingly makes the following request to the readers of this journal:

Will any one who has used vaccines in the treatment of typhoid fever, whether but one case or more, kindly communicate to him that fact accompanied by name and address of the reporter. If the results have already been reported, a note of the journal in which they appeared will be sufficient. If they have not been reported, a short blank form will be sent to the physician to be filled out. Due credit will be given in the article to each person making a report. If any physician happens to know of other confreres who have any such cases, it will be appreciated if he sends their names, as they may not happen to read this note. It is hoped that by this means a sufficient number of cases may be collected to somewhat definitely settle the now mooted question whether vaccines are or are not of benefit in typhoid therapy.

Reports of cases will be accepted at any time in the future but

preferably by November or December of the present year.

Kindly communicate with Dr. W. H. White, Director of the Department of Pathology and Bacteriology, Evans Institute for Clinical Research, Boston, Mass.

SOME VALUABLE PRODUCTS FOR THE TREATMENT OF DISEASES OF BACTERIAL ORIGIN.

Since the advent of diphtheria antitoxin it is doubtful if any new remedial agent has elicited greater interest than is now being manifested in the bacterial derivatives known as Phylacogens. These products were originated by Dr. A. F. Schafer, of California, the method of preparation and technique of application being first presented to the San Joaquin Medical Society in Fresno. To the uninitiated it may be said that the term Phylacogen (pronounced phy-lac-o-gen) means "phylaxin producer," being derived from two Greek words signifying "a guard" and "to produce." The Phylacogens are sterile aqueous solutions of media. They are produced from a large variety of pathogenic bacteria, such as the several staphylococci, streptococcus pyogenes, bacillus pyocyaneus, diplococcus pneumonia, bacillus typhosus, bacillus coli communis, streptococcus rheumaticus, streptococcus erysipelatis, etc.

Four Phylacogens are now offered to the medical profession: Mixed Infection Phylacogen (used in the treatment of bacterial diseases of unknown etiology), Rheumatism Phylacogen, Erysipelas Phylacogen, and Gonorrhoea Phylacogen. They have been thoroughly tested clinically and are said to be producing excellent results in the treatment of the various pathological conditions in which they are indicated. They are administered hypodermically—subcutaneously or intravenously—preferably by the former method, the latter being advised only in cases in which a quick result is demanded. They are supplied in hermetically sealed glass vials of 10 Cc. capacity.

The Phylacogens are prepared and marketed by Parke, Davis & Co., who have recently issued a 24-page pamphlet which describes them in detail—the process of manufacture, therapeutic indications, dosage, methods of administration—everything, in fact, that needs to be known by the man who desires to use phylacogens. Every physician in general practice, every practitioner who desires to keep abreast of the latest advances in bacterial therapy, should have a copy of this valuable booklet. Write to Parke, Davis & Co., at their offices in Walkerville, Ont., ask for the "Phylacogen pamphlet," and mention this journal.