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REFLEX PHENOMENA FROM NASAL DISEASES.

L. L. PALMER, M.D.C.M., SURGEON EYE, EAR, THROAT AND NOSE.

(Read before the Toronto Medical Society.)

The object of this communication is to attach due importance to the nose, whose function has been too widely thought to be but little more than an organ of special sense, and a passage for the ingress and egress of air in respiration, whose office might be performed under most adverse circumstances, without detriment to the health of other members; and to direct attention to the great frequency with which nasal disease acts as a reflex cause of asthma, bronchial cough, and possibly spasmodic croup; and to suggest a ready means of cure of these morbid conditions, which have in many cases proved the opprobrium of professional skill and therapeutics.

During the last few years laryngologists have found that the immediate local lesion in the nose, while it demands consideration as an obstruction of the upper air passages, is of still greater importance as a factor in the etiology of many diseases entirely extra nasal.

Thus it is that the removal of enlarged tonsils does more to restore the patient to health, than all the tonics and nutrients of the *Materia Medica*, in as much as these hypertrophied glands are hurtful not so much as a local irritation to the pharynx, as an obstruction to the free passage of air to and from the lungs. More marked and more important are the distal effects of nasal obstruction and the proper treatment is accompanied with more satisfaction to both patient and surgeon.

I shall refer more particularly for the purpose I have in view to three conditions, viz.: 1. Polypi; 2. Nasal catarrh with hypertrophy of the mucous membrane; 3. Hypertrophy of the turbinated bones; and hold to this proposition, that either one or more of these conditions existing, producing a greater or less degree of stenosis of the nasal chambers, which with the accompanying irritation, becomes by reflex action an important factor in the etiology of 1. *Asthma*; 2. *Laryngeal cough*; and 3. Possibly *Spasmodic croup*.

In speaking of nasal catarrh I shall exclude *ozæna*, which I consider an atrophic inflammation from the first, and therefore is not obstructive, but rather furnishes roomy passages if cleanliness is observed. But ordinary nasal catarrh, as we usually find it, is hypertrophic in character, leads to thickening of the mucous membrane and hypertrophy—hypertrophy of the turbinated bones and the development of polypi, all of which are more or less obstructive to the free entrance of air into the lungs, and not only prejudicial directly to the healthy functional action of these organs, but are the reflex cause of a wide variety of disease, some of which we will merely make a passing mention of, namely —1. Supra orbital neuralgia, migraim, and various headaches; 2. Loss of taste, smell, and hearing; 3. Gastric disturbances, tonsillary

hypertrophy with pharyngitis; 4. Melancholia, chorea, and reflex epilepsy, which, though cerebral and grave in character, are not infrequently the sequence of nasal obstruction and disease which might in itself be considered of little import. To account for this intimate connection between affections of the mucous membrane of the nose and cerebral affections, Dr. Jacobi, in a recent communication to the New York Obstetrical Society, drew attention to the following three points :—

"In the first place, the trigeminus with all its branches is subjected to direct or reflex irritation, arising from the inflamed condition of the nasal mucous membrane.

"*Secondly*, The thickening of the mucous membrane in the narrow nasal passages of the child (and the same thing is more or less the case in the adult), and especially the presence of a polypus, seriously interfere with respiration, and the result is the accumulation of carbonic acid gas in the brain, particularly about the respiratory centre at the medulla oblongata.

"*Thirdly*, The lymphatic system of the nasal mucous membrane, and that of the dura mater, and the arachnoid membranes are in intimate relations with each other, which is so close that they can be injected from either side."

Upon such hypothesis it is not difficult to account for certain cerebral disorders as above mentioned, and clinical experience sustains the conclusion.

Lastly, impairment of voice, laryngeal cough, bronchial asthma, and spasmodic croup—a class of morbid conditions whose nasal origin has long and often passed unobserved and, therefore, uncured, and the literature upon which has been meagre and recent. Upon these, therefore, we will add a few facts.

In not a few cases asthma is undoubtedly the result of nasal polypi, and more rarely of hypertrophy of the pituitary membrane.

Fränkel assigns the credit of the first observations on this point to Voltolini in 1871. Since then and within the last four years many cases of reflex asthma have been published by Porter, Daly, Rumbold, Spencer, and Todd and others.

My own clinical experience corroborates and sustains their views. Indeed, the relief and cure of asthma by correcting nasal stenosis is now so common that we can only wonder that the Profession should have groped so long in the dark, and failed even to seek in the upper air passages a possible cause for this distressing and ever-recurring disease which they found too often baffled their best therapeutic endeavours.

Flint defines asthma as an obstruction of the smaller bronchial tubes, from tonic spasm of the muscular fibres forming a part of the anatomical constitution of the tubes; and Bert and Traube add, from irritation of the pneumogastric nerve.

Now, this irritation may be of one of the peripheral branches, or reflected from other and possibly remote nerves, or might be by reflected impression through the fifth nerve.

The pneumogastric, though in its origin a sensory nerve, receives motor filaments from the *seventh*, from the spinal accessory hypoglossal, and from the first and second cervical nerves. And as the contiguity of origin of the cranial nerves is now demonstrated, we may believe that impressions are conveyed from the origin of the fifth directly to the origin of any of these, and thence a continuous motor tract to the pneumogastric.

Many cases might be cited illustrating the connection as apparent cause and effect, and demonstrating this by curing the effect through removal of the cause. I will cite one most typical.

1. Mr. S., age 27, consulted me for the first time in January 1883, with asthmatic breathing and complete stenosis of nares by the accumulated polypi. He had suffered thus for over two years, the paroxysms always greatest at night, when sleep could only be obtained in the semi-erect position. On a previous occasion he had the polypi removed, but never completely and never accompanied by relief, and soon they returned. Upon examination a few chest rales, but no emphysema, was all that was discovered. Larynx somewhat hyperæmic, and nares completely impacted with polypi. I encouraged him with the declaration that by thorough removal of the obstructing tumours and establishing a healthy condition of the nasal membranes his asthma would be much improved if not cured, he at once submitted to the *snare* —I mean Jarvis'—and after several sittings I

removed the last of fourteen myxomatous growths from the size of a pea up. Three months of subsequent treatment of the mucous membrane, and my patient declared himself perfectly well. Sleeps well at night, has no more paroxysms, has gained in flesh and colour, and has entered into business for himself, which was the last thing he could have anticipated, as he felt himself before a confirmed invalid. For brevity I have intentionally omitted many details of the case and treatment. Others can be furnished exhibiting similar conditions and similar results.

In the latter part of 1882, I had unmistakable evidence of the reflex action of nasal irritation when Mrs. E. reported herself suffering with frequent short irritating cough which she had for over a year, and had baffled all treatment. Accompanying this was a feeling as of something lodged in the throat about an inch below the larynx. I examined very carefully but found entire absence of disease or irritation in the lungs, wind-pipe, or pharynx.

The etiology of her cough therefore remained obscure, and as she had been under skilfully administered therapeutic measures, I did not venture to hope to be more successful than her previous advisers, and told her the same. She retired, but in three weeks returned for another examination, and said she neglected to speak of a "ringing in her left ear." I then examined the vault of the pharynx, mouths of eustachian tubes, and post nares, when I discovered what I afterwards found to be a fine fish bone lying in the left superior pharynx, and post nares with its anterior extremity prodding the lower turbinated bone, its posterior resting in the tissue posterior and adjacent to it. I removed this with bent probe covered with absorbent cotton under the light of the rhinoscope, and prescribed for the existing hyperæmia of the part. Four days after she wrote that she was very much better, in fact almost well. Two weeks after she reported perfectly well, and has remained so ever since, the cough having entirely left her.

The point of impact and of irritation here was the inferior turbinated bone, which was much congested, and doubtless the *fons et origo* of the reflex cough.

It is well known that irritation of the external auditory meatus and pharyngotrachial membrane frequently excite reflex cough, and the terms "ear" cough and "laryngeal" cough have passed into general use among medical men.

May not other morbid conditions in various other organs of the body excite this reflex act? The terms "stomach" and "liver" cough would seem to indicate that such a correlation between the abdominal viscera and cough was accepted. However, much doubt may be thrown upon this interdependence, which has never been demonstrated by experiment, nor have clinical data been strong in establishing it, I do see sufficient data to warrant the acceptance of the term "nose" cough.

In fact, all coughs seem to have a centralized or focal point of irritation which is reflected, and therefore our reasoning need not be in this particular at all different from the general.

While in Vienna a few years ago, Prof. Stoerk taught us, and published in a pamphlet about that time, that there are certain "cough-spots," (confining his remarks to the lower air passages,) namely, 1. The interarytenoid fold; 2. Posterior wall of the larynx and trachea; 3. The under surface of the vocal cords; 4. And the bifurcation of the trachea.

He does not consider accumulation of mucous in the smaller bronchi causative of cough until it reaches one of the points above mentioned, so that ordinary bronchial cough has reflex areas, which, when irritated by a little mucous, result in cough.

Now we have a pathological or morbid condition of not infrequent occurrence in the nasal mucous membrane, that is likely to produce this reflex phenomenon. I mean chronic nasal catarrh, especially when it has resulted in hypertrophy, either of the mucous membrane or of the middle or lower turbinated structures themselves.

One case may be adduced as typical and illustrative of this:

Mr. H——, a druggist, aged 40, florid but not fleshy, healthy looking, reported to me, August 1883, as suffering for over a year with a peculiar paroxysmal cough, which troubled him most when in the recumbent position, and

especially when turned toward the left side, and the lower the head the sooner and more certain was the recurrence of the paroxysm. I examined the lungs, but could find nothing commensurate with the symptoms so graphically described. A few mucous rales were all that the stethoscope revealed.

I examined the larynx and trachea, even the bifurcation, with negative results. But the rhinoscope revealed a nasopharyngeal catarrh, with large hypertrophy of the inferior turbinated bones, the mucous membrane covering being hyperæmic; the hypertrophy was equal on both sides, but the septum being deflected a little to the left, rendered the corresponding nasal chambers almost impervious to air.

I touched the posterior part of the inferior turbinated bone on one side with bent probe, and by aid of the rhinoscope, when he at once had an attack of mixed coughing and sneezing. I thereupon gained his consent to remove the hypertrophied structures, which I did at that sitting with the snare.

Two weeks subsequently he reported himself better. I examined and found some hypertrophic mucous membrane, which I destroyed with glacial acetic acid. He has not been troubled with his irritating cough since.

I might add to the list of such cases, for they have not been uncommon during the past two years and a half since my attention has been more particularly directed to this subject, but will feel better pleased to shorten my own remarks, and allow others who may have similar experience to add to the number (in the discussion of which it is the object of this paper to evoke).

In looking for a physiological explanation of these facts, may we not find the chain of events something as follows:

The sensitive fibres of the terminal branches of the trigeminus nerve which supplies the part, are reflected along the motor fibres of the superior laryngeal nerve, exciting in the larynx the act of coughing, by causing contraction of the cricothyroid muscle. This muscular spasm is purely a functional derangement. But if this be prolonged, we find trophic changes going on in the part through reflected vaso dilator impressions which result in marked tissue changes, congestion with abnormal secretion.

Quitting the arena of physiology, we may gather up our scattered threads into a concluding practical suggestion: it occurs as a corollary to the subject of *nose cough*. If a mere mechanical irritation of the middle, or especially of the inferior turbinated bone, or a hyperæmic or hypertrophic condition of those parts will induce a spasmodic cough, it would seem probable that in a child, by predisposition or heredity, catarrhal, the inhalation of air colder than usual, especially of a damp cold air, would be accompanied by turgescence, and finally hyperæmia of the erectile tissue, which occupies this particular part of the nose, and thus induce "spasmodic croup," for as what causes a severe chill in an adult induces often a convulsion in a child, so the cause of reflex spasmodic cough in an adult may induce spasmodic croup in the child.

I look to this area as the cause of many cases of constantly recurring spasmodic croup, which are generally said to be due to a "predisposition."

The measures that relieve those attacks, namely, emetics, hot fomentations around the neck, and hot pediluvia and warm inhalations are exactly the measures that relieve the hyperæmia of the nasal erectile tissue. They afford temporary relief, but the cure of the "predisposition" consists in the removal of all hypertrophied and diseased conditions of the nasal mucous membrane.

The practical conclusion from the above is:

1. That in all cases of asthma, spasmodic cough and spasmodic croup of doubtful origin, the nasal chambers should be carefully examined, and any diseased condition corrected.

2. That nasal polypi and hypertrophy of the turbinated corpora cavernosa when obstructing the lumen of the nares, should always be removed.

MORPHINE IN THE VOMITING OF PREGNANCY.—Dr. W. C. Roberts, of Albany, Wisconsin, writes that in three cases of obstinate vomiting of pregnancy he successfully used muriate of morphine per rectum in half grain doses. Dr. Roberts asks for the experience of others with morphine given in this way.—*N. Y. Record.*

THE OPIUM HABIT AND ITS TREATMENT.

BY STEPHEN LETT, M.D., MEDICAL SUPERINTENDENT OF THE HOMEWOOD RETREAT, GUELPH, ONTARIO.

Read before the Canada Medical Society at Montreal, August 25th, 1884.

Throughout the whole range of our *Materia Medica* there is perhaps no drug whose potency for good and evil is more profound, than that of opium. Administered by skilful hands it has a wide range of usefulness; dabbled in by charlatans its dangers and evils are manifold.

It is not, however, to the use of opium in the hands of the intelligent physician that I would direct your attention, but to its employment as a habit, its daily use as an article of consumption constituting what has been variously called "the opium habit," "opium-eating," "chronic papaverisim," or the "opium psycho-neurosis." The extent to which this habit (or more properly speaking, disease,) exists, may in some degree be judged of by noting the large quantities of opium annually imported to America, which in the year 1882 amounted to over 300,000 pounds, an amount greatly in excess of what could possibly be required for medicinal purposes.

This fact should put us on the alert and cause us to ask ourselves, how far are we as medical men responsible for this ever increasing evil?

The manner in which opium is employed by its slaves varies, and is to a certain extent determined by the special circumstances under which the habit was at first contracted. Some smoke it, some snuff it, others eat the gum, drink laudanum, paregoric or other preparation containing it; but by far the most common mode of administration is the use of the hypodermic syringe, the employment of which appears to have increased opium habituates to an alarming extent. A druggist in New York says that he sells on an average one hypodermic syringe a day to this class of people, and that on some days he disposes of five or six.

It would be difficult to describe with accuracy the power exerted by opium over the human system when habitually used. Any words of mine would fail to adequately express the dreadful sufferings a confirmed opium taker endures, when deprived for any length of time of his usual portion. It would require the pen of a De Quincey or a Coleridge to do the subject ample justice. The drug holds its victims in bonds from which he cannot free himself; he is as powerless in the presence of this monster as is a sapling in the trunk of an elephant. No fetter of steel ever held its prisoner more securely, and few pains to which human flesh is heir are equal to those of the opium-taker. Any attempt to abruptly cut off the supply entails upon the sufferer tortures frightful to behold; and unless the accustomed stimulant which his system demands is speedily supplied suicide or death from exhaustion is apt to close the scene.

Much has been said about the pleasures of opium and the sublimity of dreams brought about by its influence. No doubt some persons do experience pleasurable sensations, but this is only in the early stages of the disease, when opium has not become a daily necessity and when days or even a week can be passed in comparative comfort without having recourse to the drug. Others never experience these pleasures, but *all* sooner or later suffer the pains.

The causes which induce the habit are various. Few persons, of their own free will, wantonly commence taking it; if there are any such, they are open to censure in the highest degree, and in them the habit may at first be looked upon as a vice. Many resort to it to induce sleep and quiet nervous restlessness, not knowing the consequences of their indulgence. But by far the greater proportion of opium-takers have had the drug administered to them for the relief of pain, either mental or physical, in the multiform conditions under which it arises. Opium does not cure the cause of this pain, it simply mitigates the suffering; therefore the necessity of its continuance until the habit, which is quickly formed, presents itself in all its hideous reality. Such patients are deserving of our sympathy and aid. It is not their fault that they are "opium-eaters;" they have not brought this unhappy condition upon themselves, and it

is a mistake to look upon them as miserable, vicious outcasts. How many are there amongst them who would not willingly sacrifice all they possess to be rid of that demon and monster which so tortures and robs them of physical and mental vigour.

Of the pathological changes which take place in chronic opium poisoning, nothing has been clearly demonstrated. That there are changes has been assumed more by inference than from microscopical research; that these changes are to any great extent permanent does not seem to be the case. Herein consists one of the great differences between opium and alcoholic inebriety. The structural changes which take place in the latter disease are lasting: a permanent lesion remains, and the effects of alcohol are indelibly printed on various organs of the body. Numerous reformed drunkards, who have perhaps lived many consecutive years during the latter part of their lives without permitting alcohol to pass their lips, have, nevertheless, died of alcoholism. Their death certificate may read "paralysis," "apoplexy," or some disease of the liver, kidneys, heart, or other organ, but the true return would be "alcoholism." Not so, however, with the opium taker, although it is true that, whilst he is under the influence of the poison, the mucous membranes become parched and dry, the secretions checked, the glandular system crippled, the nerves shattered, and the whole process of nutrition more or less interfered with. Nevertheless, when the habit is broken, these organs resume their functions; nature, relieved of a burden, seems to right herself, and the whole animal economy apparently proceeds on the even tenor of its course.

There are many points of resemblance between the excessive use of opium and that of alcohol, the one at times being used as a substitute for the other. Both tend to moral obliquity and to estrangement from the family circle, and if not successfully treated will lead to mental and physical ruin. Whilst, however, alcohol frequently arouses violent, dangerous, and pugilistic emotions; bringing destruction, misery, and poverty to the household, the emotions produced by opium are more placid: its victims, as a rule, being kind-hearted and well-disposed towards their fellow-creatures, but cunning to the last degree, with a total disregard for truth so far as relates to the supply of their accustomed stimulant.

I shall not occupy the time of this Association by entering into the medico-legal aspects of the question, or by enquiring into the extent to which the offspring of an opium habituate is impaired in its mental and physical development; these are subjects which present points of interest. But I will proceed to a synopsis of the treatment which has been found successful in dealing with these cases.

Hitherto, physicians, as a rule, have looked upon opium-taking as a habit, and not as a disease. Their function is not so much to deal with habits as to treat disease, hence the treatment of this disease has been left to charlatans and irregulars, who find its victims an easy prey. And these, after extorting all the money they can, pronounce the unfortunate ones cured, leaving them to continue their pernicious indulgences under some other form from that originally contracted.

At the outset we may premise that there is no known antidote to chronic opium poisoning. What, then, is the course to be pursued in the treatment of these cases? Shall we, as in many cases of alcoholism can be so easily accomplished, cut the drug off at once? There is no doubt that in some few instances this can be done successfully, and I know of a case at the present moment where the abrupt stopping of the supply was not followed by any untoward circumstance; but cases of this kind are like meteors, few and far between, appearing at unexpected times. The remarks of Dr. Hughes, of St. Louis, are so forcible, and so well describe the pitiable condition of patients suddenly deprived of opium, that I may be pardoned for quoting them at length. He says:—"The colliquative diarrhœa, at first often quite bilious, the foul tongue, feeble pulse, sense of constriction in the epigastrium, nausea and vomiting, the profuse cold, clammy perspiration, the extreme sensibility to cold and sound, anorexia and loathing of food, abdominal and muscular pains, borborygmi, insomnia and delirium, present an indescribable picture of suffering when the opium is suddenly withdrawn. Medical

men know not what they do when they suddenly and entirely take from the habitual user of opium the drug to which he had become enslaven. No cruelty could be greater, and no man with much experience with the pitiable victims of this terrible slavery could advocate such a plan of management. No physician who has ever tried the total withdrawal or abrupt weaning plan with the sufferer under his own eye, day and night, could advocate its repetition, that is, when the quantity taken has reached three or more grains daily, and the habit has lasted from three to six months. I doubt if even a grain and a half could be abruptly withdrawn from a feeble patient who has not taken more, without peril. The tyranny of opium is bad enough without a tyrant physician to minister to its enthralled subject. 'Whatsoever ye would that others should do unto you, even so do unto them,' is the sacred duty of the physician in treating these most pitiable of all the slaves of a morbid appetite. Medical men of violent therapeutic proclivities, who advise the abrupt abandonment of all opium, overlook the fact that a shattered, nervous system has to be reconstructed, which never was perhaps very strong—a system in which the *vis medicatrix naturæ* is not and may never have been very strong—a system in which nutrition is and may have been for a very long time below par. To throw upon such a person the painful burden of entire withdrawal, is to unmask a battery of horrors which many constitutions cannot endure." Such is Dr. Hughes' view.

I know of a case where home treatment by the husband was commenced by the sudden and complete withdrawal for four days of the patient's daily dose of gr. viii. of morphia; this brought the unhappy victim to death's door; life was saved only by the prompt action of the physician, who restored the morphia and administered brandy hypodermically. Irreparable mischief was, however, done; the nervous system could not stand so great a shock, insanity supervened, recovery is doubtful. [The death of this patient was recorded in the daily papers a few days ago.]

The number of suicides committed under the similar circumstances is almost incredible. A case of this nature comes vividly before me at the present moment; it is that of a son of an esteemed citizen in one of our western cities. During the Franco-Prussian war his martial proclivities led him thither, he received a painful wound in the leg, the hospital surgeon ordered hypodermic injections of morphia. This order was never countermanded, the nurse continued to administer the morphia until some months later, when the unfortunate victim left the hospital and returned to Canada a confirmed opium-taker. When he consulted me he was taking hypodermically 24 grains of morphia daily. Not being in a position to take charge of the case, I recommended him to go to one of the reputable institutions where such cases are treated, and place himself in the hands of the superintendent. This he did not do, and a short time afterwards the morning papers recorded his self-destruction.

This tendency to suicide is not to be wondered at when we consider the miserable existence, and the dreadful, indescribable gnawing creeping, and craving sensations of the opium-taker deprived of his drug. Listen for a moment to the earnest appeal for means to quickly destroy himself, of a patient who was not deprived of opium, but whose powers of endurance were overestimated and the gradual withdrawal of his daily allowance carried a little too far. He says:—"I appeal to you, as one man to another, to give me something that will cease this wretched life of mine. . . . I declare to you upon my soul that I cannot go through this night without making some attempt. . . . I entreat you to save me the agony of the violent method, which will be my only resort if you do not help me." . . . . He further declares that his will is gone, that he is unfit for the responsibilities of life, the care of his family, that he cannot get rid of his enslaver, and ends by saying: "Surely it is a charity to end such a useless life as mine; and, depend upon it, heaven will reward you for the mercy you show me."

It will now be seen that there is only one method in which these cases can be successfully managed, that is, to very gradually reduce the quantity taken, and, as the opium is withdrawn, to supply its place with some agent which will

sustain the system and control these terrible sensations until recuperation takes place, the process of nutrition is re-established and the system is able to stand alone, then both opium and its substitute can finally be withdrawn.

Before treatment is commenced, however, it is necessary to inquire into the patient's idiosyncrasies, as well as ascertain whether he is the subject of any organic disease which, though held in abeyance by the opium, is sure to become active when that agent is withdrawn, and frustrate all probabilities of cure. Inquiry must also be made as to the existence of hereditary predisposition to insanity or other serious neuropathic disorder; and, lastly, in the case of females, assurance must be had that the patient is not pregnant—abortion would be sure to take place, accompanied by alarming hemorrhage, requiring most prompt and active measures to avert a fatal issue. Having satisfactorily settled these points, the treatment may be commenced with every prospect of success, for, neither does the quantity of the drug consumed, or the length of time the disease has existed, form an insuperable barrier. Comparatively easy victories have been obtained over the drug where it has been taken in large quantities, and when the habit had been of many years' duration.

For the purpose of supplying the place of opium in the manner indicated, various agents have been used, but none seem to answer the purpose so well as large doses of quinine, recommended by Dr. Hughes, of St. Louis, or the best English solid extract of cannabis indica, so strongly advocated by Dr. Hubbard, of New York. During the course of treatment other therapeutic agents are required: The valerianates and chloral will be found useful to induce sleep; the compound tincture of cinchonæ and coca leaves, in depressed conditions. Hot salt water baths can hardly be dispensed with, their power of soothing and allaying nervous irritability, equalizing the circulation and inducing sleep, makes them one of the most valuable remedies at our command. To relieve constipation, a good deal of fruit should enter into the diet. If this fails to produce the desired effect, copious enemata of castor oil will be required. During the crisis which follows the withdrawal of the last infinitesimal dose of opium, ten drop doses of dilute phosphoric acid, repeated every half hour, exerts a wonderful influence. In this we possess one of the most powerful of all drugs to combat and control the spasmodic twitching and nervous irritability incident to this stage of the case. It cannot, however, be continued beyond five or six doses, as its tendency to irritate the stomach prohibits its further exhibition. Musk, limewater, mustard, friction, and electricity, are all useful in assisting to bridge the patient over the crisis, a period which lasts but twelve hours, after which all necessity or desire for opium is gone, and the danger of returning to the drug has passed.

In order that a clearer idea of the management of these patients may be conveyed, I give the following outline of a case which has lately passed through my hands:—

A. B., male, aged 32, married, has had several children, all strong and healthy, the youngest two weeks old; admitted February, 19th, 1884.

Previous to forming the opium habit his general health is reported as having been good, though of a nervous temperament. He is said to have had a few fits at long intervals, the precise nature of which is not clearly defined; the last one occurred a few weeks ago, upon recovering from chloroform which was administered to have a tooth extracted.

Patient first took opium about six years ago, laudanum being given to him by a medical student to relieve neuralgic pains and sleepless nights, the result of overwork at an unhealthy occupation.

When admitted, he was consuming six ounces of laudanum a day, and presented the usual physical and vital phenomena of the confirmed opium-taker, viz.:—Spasmodic twitching and jerking of the muscles in a marked degree; knees weak; darting pains running down the legs; circulation feeble; extremities cold and clammy; pulse slow; anæmia marked; complexion sallow and dusky; pupils contracted; insomnia; appetite poor, and bowels constipated. He was not, however, emaciated: on the contrary the body was well nourished.

Treatment had been tried on three former

occasions, once by a specialist in New York, and twice by physicians in private practice.

For about two weeks previous to admission he had increased his dose to eight ounces of laudanum daily. This was done to enable him to finish certain work he had in hand before admission, and during the twenty-four hours previous to arrival he had consumed fourteen ounces, as well as numerous alcoholic potions, obtained whenever possible during a ten hours' railroad journey.

Treatment was commenced on the day of admission, according to the plan laid down by Dr. Hubbard, of New York, viz. :—To at once stop the daily dose of laudanum, and supply its place with an equivalent, or rather less, of morphia; then to gradually reduce this, and sustain the system with cannabis indica. Accordingly he was put on the following mixtures, which were placed under lock and key, and the daily doses administered by a trustworthy attendant. One bottle was made up containing the following, and labelled No. 1 :

℞ Morphia sulph..... ℥xvii.
Spirits vini. rect. ..... ℥viii.
Tr. gent. co. ..... ℥x.
Tr. zinziber ..... ℥i.
Pulv. acacia ..... ℥i.
Aqua ..... ℥xxv. M.

℥ij three times a day, after each meal.

Another bottle was made up of the following, and labelled No. 2 :

Et ℞ Ext. cannabis indica (solid) ℥v.
Tr. zinziber ..... ℥iij.
Glycerine ..... ℥xx.
Spirits vini. rect. ..... ℥xviii. M.

This mixture to replace what is taken out of No. 1 after each dose.

To have hot salt water baths every other night before going to bed.

Feb. 20th.—Has not had an action of the bowels for several days. Ordered an injection containing ℥viii castor oil, which produced a hard and painful evacuation, leaving the patient quite exhausted.

March 2nd.—Up to the present has not materially felt the change from laudanum to morphia, but this a.m. is somewhat depressed and presents symptoms indicating that the reduction of morphia has been pushed as far as the system will comfortably bear. Therefore have discontinued the use of No. 2, and ordered gr. ii quin. sulph., twice daily.

March 3rd.—At the patient's urgent request his morning dose was administered before instead of after breakfast. The effect of thus interfering with the even course of treatment was to cause considerable depression and encounter much difficulty in bridging the patient over the irregularity, necessitating the administration of sustaining drugs, for which purpose ℥i doses fl. ext. damiana were given morning and evening.

March 9th.—Feeling a great deal better yesterday and to-day; stopped the quinine and substituted therefor quin. et ferri cit.

March 13th.—The patient's system has now become accustomed to the reduced quantity of morphia which is being taken, and have ordered the reduction to be continued on the following basis: No. 2 to replace the quantity taken from No. 1 after midday and evening doses.

March 15th.—Low and depressed this morning; complains of pains in various situations, notably over the epigastrium and down the legs, administered ℥i fl. ext. damiana, with gttx. spts. am. aromat., also supplied him with coca leaves, directing him to chew them and swallow the juice. Was much better towards the afternoon, and quite bright and cheerful in the evening.

March 16th.—A great deal better to-day; to continue the coca leaves.

March 20th.—Complains of the bowels being relaxed; upon close inquiry found that he had only had two semi-solid evacuations, which to him were a diarrhœa as compared with his usual constipated condition.

March 29th.—Has been progressing satisfactorily up to the present time, reduction going on steadily, and the patient well sustained. Unfortunately he received a letter this afternoon containing money, and, notwithstanding all ordinary precautions, he obtained ℥ij tr opii and ℥iv whiskey, which he consumed.

March 30th.—The depression following the over-stimulation of yesterday is very great, and it was found necessary to administer preparations of valerian and Peruvian bark.

March 31st.—Could not sustain him without stopping the reduction, therefore discontinued the use of No. 2.

April 18th.—With the assistance of valerian bark and coca leaves the system gradually righted itself. He is now quite himself again, and anxious to finish some painting which he began when first admitted. In order to do this it was necessary for him to go to the city, about a mile distant, to obtain some materials. Accompanied by myself he walked there and back. Feeling somewhat fatigued upon his return a dose of valerian and bark was given him. For the purpose of softening and cleaning his paint brushes he was also given ℥ij spts. vini. rect. In the evening, whilst playing cards, he was feeling a little unstrung, and went to his room for some coca leaves. As a practical joke one of his associates had hidden them away; feeling depressed and not being able to obtain the leaves to sustain him, he mixed the spts. vini. rect. with water, and drank it. About eleven o'clock he was seized with a convulsion, partaking of the nature of epilepsy, preceded by a scream. When visited almost immediately, he had fallen on the floor and was grinding his teeth, no frothing at mouth or other indication of spasm. There was evidence of partial consciousness, though afterwards the patient had no recollection of what had taken place. He, however, says that he went into his room and got into bed, but was haunted by the terrible vision of seeing his favourite child in the corner of the room dying, while he was powerless to render any assistance or even go near it. This hallucination was present most of the night, and he would frequently sit up in bed and look towards the particular corner, calling the attention of his attendant to what he imagined he saw. After being placed in bed he became more and more conscious, but with a correspondingly increased irritability of the nervous system, until in a short time he was suffering extreme torture—pains in the limbs, chest, and abdomen, frightful to bear, face flushed, head hot, and a sensation which he described as that of animals crawling about in his brain; there was inability to rest for more than a moment in any position, and suicidal tendencies presented themselves in a marked degree. A dose from mixture No. 1, equal to gr. 2⅓ of morphia, was administered, after which he gradually became more tranquil and went off into a sound sleep, disturbed only by occasional spasmodic twitching and jerking of the muscles. At 8.30 a.m. he awoke and said he felt better, but complained of being very weak; all irritability had subsided.

What the cause of this convulsion was is perhaps difficult to define. In all probability it was the combination of the following circumstances:—Running races the evening previous, thereby accelerating the circulation beyond its normal and taxing his strength too severely; the walk into the city and back that morning producing over-fatigue; and lastly the toxic effect of the alcohol which he drank. However this may be, a curious coincidence must not be lost sight of. When returning from the city he, for the first time, questioned me very minutely as to the probability of the reappearence of epilepsy when the last dose of morphia is withdrawn, adding, that for the past few days he felt as though a fit were coming on. He also stated that one of his sisters was a confirmed epileptic, and that he himself had fits when quite a boy.

The patient now improved rapidly, and in a few days reduction of morphia was resumed. Mixture No. 1 was tested, and its strength computed as gr. i to the ℥i. As the quantity remaining was small, it was recompounded so as to measure ℥212.

With one slight drawback on the 26th of April, his progression was satisfactory up to the 9th of May, when he presented symptoms of more than usual depression, with suicidal tendencies so strong, deliberate, and determined that only by the greatest vigilance and the services of a special attendant to stay with him all night, together with an extra dose of morphia, was a catastrophe avoided. The cause of this unlooked-for change lay in the fact that more money had been sent to him through the post, thereby placing temptation before him which he had not the will-power to resist, and which nothing short of constant restraint under lock and key (a course which would have entirely frustrated all chances of cure) would have prevented. He partook of a liberal amount of alcohol and depression was the inevitable result.

It was now necessary to abandon reducing for the time being, but by careful management he was sustained at the point he had reached. In time his system righted itself, and on the 26th of May the use of mixture No. 2 was cautiously resumed.

The case now progressed favourably; the bowels and other mucous membranes became relaxed (a good omen) on the 29th of May, and continued more or less so up to the 15th of June, when active diarrhœa set in, the bowels moving copiously seven times during the day. This was the signal for action; he was now taking very minute doses of morphia, not more than gr. $\frac{1}{10}$, therefore mixtures Nos. 1 and 2 were discontinued and the patient permitted to pass into the crisis which proved to be uncomplicated. Muscular twitchings and neuralgic pains were the most prominent symptoms at first; these were successfully combated and controlled by quinine, dilute phosphoric acid, and hot baths. The action of the phosphoric acid was prompt, but it had to be discontinued after the sixth dose, as the stomach was becoming irritable. Thus the first night passed in a satisfactory manner; the day following presented no untoward symptoms, the patient feeling weak, otherwise tolerably comfortable, but did not sleep; bowels acting freely. The next night symptoms of irritability appeared, which for a time were quite as severe as the previous night; gr. v of musk every half hour, together with hot baths, brought relief, and the only troublesome symptom was vomiting, which was relieved by mustard plasters and lime water. In the morning some light nourishment was partaken of, which was followed by refreshing sleep; this terminated this critical period. Improvement henceforward was progressive and rapid, the only medication given being a mixture containing iron and quinine. The bowels gradually righted themselves, and two weeks later the patient returned to his home, much improved in health and strength, with all desire for opium gone.

Under date of Aug. 6th, nearly two months after he was cut off from opium, he writes: "I have taken no opiate of any kind, not even alcoholics, since leaving the 'Retreat;' and I can assure you that I feel all the better as it is, and I am now feeling better than I have felt for years."

In the description of this case, Mr. President, and indeed in the reading of this paper, I cannot lay claim to having brought before you anything strictly new, but have simply noted some of the salient points which this interesting class of afflicted humanity presents, and at the same time endeavoured to give in outline the indications for treatment.

I trust I may be pardoned for having sought, at some length it is true, to direct your attention to a disease which already numbers its victims by hundreds, and which threatens to exert a serious influence upon the coming generation.

A CASE OF HYSTERIA.

BY W. GUNN, M.D., L.R.C.P. & S., ED., BRUCEFIELD.

(Read at Ontario Medical Association, Hamilton, June, 1884.)

Eva L., aged 13, poorly nourished, tall for her age, complexion fair, hair and eyes of a brown colour, never menstruated.

One of her sisters died of consumption. The rest of the family, eight in all, and her parents, are living, and fairly healthy. The family connection is inclined to the nervous temperament.

She was healthy up to the time of present illness. She went to school, played, and learned her lessons like the other girls. As a scholar she was rather in advance of her class. Had measles in childhood.

Present Illness.—She began to complain in January of 1882, when she was between ten and eleven years of age. *The initiatory symptoms* of her illness consisted chiefly of a pain in the left side in the region of her heart, and general weakness. This state continued for a few weeks, during which time she occupied an easy chair or a sofa. She took to bed in February of 1882, where she has remained since. She was unable to stay up longer, owing to muscular weakness. After being in bed about three months, her attendants tried to pillow her up one day, when she lapsed suddenly into a semi-conscious state, and remained so for ten weeks. *During this state* she seemed to have lost the use of all her special senses, excepting that of taste, which was sensitive to a troublesome

degree. A distress in her breathing or raising the right elbow indicated her desire for some particular food or drink, or that she wanted to urinate or to have the use of her bowels. After a number of unsuccessful trials, her nurses were usually able to gratify her desires. At regular intervals during this state she took fits, which will be referred to hereafter. She came under my care for the first time in May of 1883. The symptoms then presented were referable chiefly to her *nervous system*, *special senses*, and *alimentary canal*.

Nervous System.—She had *fits*, which came on periodically three times a day. They began when she was in the semi-conscious state, and continued till the 1st of May, 1884. A minute or two before they came on she would cease any work that might be occupying her attention, and lie in a *dormant* condition. The fits were characterized by a peculiar *cry* and *spasm* of certain muscles. The cry was a loud, shrill, expiratory moan, resembling that of a woman in the latter stage of labour, and it continued while the fit lasted. With the commencement of the fit, the knees were drawn rigidly to the chin, and stayed fixed in that position throughout. The left arm remained still by her side, the thumb being drawn across the palm of the hand. The right arm kept in constant motion, the hand touching alternately the small of the back and side of the head or forehead, as if she felt pain in those parts. She had choreic movements of the muscles of the face. These were constant in the arms, but affected the face very little excepting during the fit. Her attendants were in the habit of keeping her legs and thumb extended by force, and keeping cold to her head. When these remedies were neglected the fit was increased in duration and intensity. Pinching or pricking with a needle modified them in a similar way. The fits came on regularly at 10 o'clock a.m., and at 3 and 9 p.m. Sometimes she missed the one at 3, and then she had two in succession about 9. Doing anything to annoy her would often induce a fit. Pressure on the ovaries did not prevent or modify them in the least.

Nervous Sensibility.—Since her semi-conscious state she has had anæsthesia of the left arm, between the shoulder and elbow. Pinching or pricking with a needle does not appear to give rise to pain in this part.

Special Senses.—Sight and smell are entirely absent. She employed part of her time in making book-marks and other fancy work. This work exhibited considerable taste and skill, and necessitated the blending of several colours. She performed it equally as well with her eyes closed as with them open, thus proving that her blindness was not feigned. Her eyes are natural in appearance, but quite anæsthetic. She was deaf before the morning fit. After this she heard, and conversed in a low tone for the rest of the day. If the speaker put her hand to his lips before the first fit, she would understand what was said and would answer. This was discovered by accident. Her parents think that she recognized the words by the sense of touch.

Gastro-Intestinal System.—She vomited regularly after each meal for more than two years. The kind or amount of food that she ate made no difference in this respect. Her appetite is good but capricious—sometimes ravenous. Her bowels seldom move oftener than once in two or three weeks, and then frequently by the use of a purgative, which is administered with difficulty. When she defecates, three assistants are usually in attendance. Two steady her hips on the chamber and one supports her head and shoulders. She intimates her desire to be raised by a movement of the right arm or by a peculiar moan. Then all her muscles become relaxed, and her limbs and body develop suddenly into a mass of joints, as it were, so that it is no easy task to retain her in a fixed position.

Modification of Symptoms.—On the 1st of May, 1884, she told her people that she went to Georgia to gather cotton some time ago, and had returned—referring probably to her semi-conscious condition. She said that she intended to go to Georgia again, but would never come back; and then she passed into a somewhat similar condition of unconsciousness. Her breathing became rapid and laboured in the daytime, but natural at night when asleep. She neither spoke nor appeared to hear anything, but showed signs of distress on being

pinched or hurt in anyway. Her respirations in daytime were about 30; pulse, 115; temperature about normal. She returned from "Georgia" in two weeks, when she was again able to speak. The trip improved her somewhat, for since then she has neither the vomiting nor the periodical fits. Other symptoms are substituted however. She complains of pain along the spine, which at times seems to be excruciating. These fits of pain come on every day or every other day, and last for an hour or two, the pain being referred to the back of the head as well as to the spine. She has still anæsthesia of the left arm, between the elbow and shoulder; hyperæsthesia along the spine, but in no other part; absence of sight; choreic movements very slight.

Intelligence, etc.—Her memory is good. She listens attentively to interesting reading. Before May 1st, 1884, she would often discourse in a low tone, and would sing hymns if asked to do so. She wrote letters to her friends, and occasionally wrote feeble verses of original poetry of a sacred character. She was also very fond of doing fancy work. Since then her speech is confined to curt answers to questions, and she never attempts to write or to do any kind of work. She lies in bed with eyes closed, and frowns often. She seems annoyed when her condition is referred to in her presence.

Treatment.—Arsenic, bromide, ferruginous preparations, laxatives, massage, and electricity were employed to counteract the chorea, anæmia, constipation, and muscular weakness, and probably with good effect. Her attendants are very indulgent and sympathetic, the effects of which are by no means beneficial.

Selections.

TYPHOID FEVER AND SYPHILITICS.

Apropos of an observation of M. Martineau, at the *Société Med. des Hôpitaux*, that syphilitics who are being treated with mercury are more prone to be carried off by cholera, M. Dujardin-Beaumetz said he considered syphilis an aggravating circumstance, not only in cholera, but in typhoid fever. He has always noted that the typhoid patients which came to him from the Midi and the Lourcine were in particularly unsatisfactory condition. It was a common saying at the Cochin that a syphilitic in the first stage who takes typhoid fever is a condemned case.—*L'Union Med.*

STATIC ELECTRICITY AS A PREVENTATIVE TO CHOLERA.—M. Romain Vigouroux, says *(Le Prog. Med.)* that ozone neutralizes *all* the germs contained in the atmosphere, and is the best antiseptic against the cholera germ. It is best generated by means of the silent discharge of static electricity. Patients who have been thus electricised state that the smell of the ozone has been preserved about their skin and clothing for many hours, and even until the next day; that is, that the ozone is produced upon the epidermis, which it impregnates at the very places that the morbific germs have to pass through. In addition to its ozonising action, static electricity has the positive advantage of ameliorating nutrition and thus increasing the vital resistance.

INTRA-VENOUS INJECTIONS OF SALINE SOLUTIONS.

At a meeting of the Berlin Society of Internal Medicine, Herr Kronecker exhibited an apparatus for the infusion of saline solutions into the general circulation. The speaker stated briefly the principles of this method, which, though by no means a new procedure, was still not so widely known and appreciated as, by reason of its value, it ought to be. There were several precautions to be observed in employing this method for restoring the normal fluidity of the blood, the first and most important of which was to secure a suitable solution. He had formerly thought it important to add a certain proportion of soda to the solution, but had recently omitted the alkali and had obtained equally good results. Experiments on animals had shown that a solution which was suitable for one species might be harmful to another, hence it was not safe to conclude, without further trial, that a mixture which was well borne by certain animals would be suitable for the human subject. Some recent experiments by Aronsohn and Marckwald had shown that a

proportion of $\frac{75}{1000}$ part of chloride of sodium to 100 parts of distilled water (about 56 grains to the pint) caused no irritation to the mucous membranes or subcutaneous tissues, and the speaker proposed a solution of this strength as the one best adapted for intra-venous injection.

Regarding the proper method of introducing the solution into the circulation, Herr Kronecker expressed a decided preference for intra-venous over subcutaneous injection, as offering the greater certainty that the fluid will be taken up by the blood stream. But great care should be observed not to inject the solution too rapidly or with too great pressure, because of the danger of filling the heart with water and driving from it all the blood. Having made a number of observations on this point, the speaker had been able to set five drachms per second as the limit beyond which we should not pass in making intra-venous injections of fluids other than blood. For making the injection we need a bottle, graduated to drachms, to which a rubber tube with canula attachment is fastened. By holding the bottle at a proper height we are enabled to force the fluid at any desired rapidity into the veins; but as the pressure varies according to the amount of fluid contained in the flask, the height at which the latter is held must be constantly raised during the operation. In order to obviate the necessity of this, Herr Kronecker had recently employed a Mariotte flask, by means of which a constant pressure is obtained, whatever may be the variation in the quantity of the contained fluid.

One great advantage possessed by the saline solution was that it could be disinfected. The air in the flask could also be kept perfectly pure by allowing it to pass through cotton saturated with a disinfectant solution.—*N. Y. Record.*

DEODORIZED IODOFORM.

Iodoform	18	grammes
Sulphate of quinine	3	"
Powdered charcoal	15	"
Essence of peppermint	40	drops

Thus prepared the iodoform may be associated with the ordinary liquid excipients.—*Bull. de Trérapeut.*

RESECTION OF THE HIP AND KNEE.

M. Neuber, of Kiel, at the German Society of Surgery, proposed some modifications in order to insure the solid anchylosis of these articulations which he asserts should be the result desired by the operation. He goes so far as to pin together the vivified surfaces of the femur and tibia. Hahn, of Berlin, has employed this method 25 times since 1882. Volkmann and Kœnig, on the contrary, thought that operations with the object of producing anchylosis should be abandoned, because the patients use the limb with difficulty. The endeavour should be to make new articulations. Doubtless the solidity of the limb is less, and the limping is greater than with anchylosis, but the persistence of function is preferable. In the child, Volkmann said that the resection of the knee was never necessary; the operation should be limited to extirpation of the synovial membrane. Kœnig went so far as to say that resection of the knee in children under 14 years was a grave fault. M. Neuber replied that before all it was necessary to preserve the life of the patient, the conservation of the functions of the limb was a secondary consideration. But, said Volkmann, none of my resection operations have died. Pardon, replied Neuber, I know from very good authority that at your clinic many of your hip resections die. That is an error, replied Volkmann. Deaths from albuminuria and tuberculosis should not be set down to the operation.—*L'Union Med.*

BLEEDING IN URÆMIA.

M. Landouzy, in the *Gaz. des Hôpitaux*, relates a case of uræmic poisoning in a woman who showed great improvement after the appearance of a copious menstrual flow. And he remarks what the menses accomplished in this patient you should do in toxæmics, that is, bleed to free them as quickly as possible from the poison which is intoxicating all their viscera; bleed them, but do not purge them; for if this woman, instead of having her menses, had had diarrhœa, for example, the uræmic symptoms, instead of amending, would have become intensified. You would have done as much good in abstracting from your patient 200

grammes of blood as if she had passed 7 litres of normal urine. Do not hesitate to follow the practice of our old masters, who did not fear to open a vein in toxæmics. It would take 280 grammes of alvine matters or of serum from the intestinal mucous membrane to correspond to one litre of normal urine, containing 30 grammes of urea and 450 centigrammes of extractive matters, whilst only 200 grammes of blood, I repeat, are equivalent to 7 litres of normal urine.

HYDRASTIS CANADENSIS.—The *Lancet* states (without giving the source of its information) that M. Schatz has employed a fluid extract of this drug in fifty cases of uterine hæmorrhage due to various causes. The results have been very satisfactory in about two-thirds of the cases. Metrorrhagia due to fibroid tumors, post-puerperal metrorrhagia, and menorrhagia about the time of puberty, were the affections most readily relieved. The fluid extract was given in doses of twenty drops three times a day. The treatment was begun a week or more before the commencement of the period of menstruation. Under its influence the duration of the catamenia was diminished and the blood discharged was lessened, and in some cases there was actual suppression.—*N. Y. Med. Journal.*

PROLONGED ANÆSTHESIA.—M. Brown-Séquard maintained an epileptic, who had fractured his arm, in a chloroformic sleep for eight days, in order to avoid a fresh attack of epilepsy. Two physicians, his aids, and an intelligent and devoted staff of nurses were sure guarantees that the sleep had not been broken in an appreciable manner.—*Le Prog. Med.*

MR. LAWSON TAIT'S OPERATION FOR SUPPURATING HÆMATOCELE.

Mrs. Thomas S., an English woman aged thirty-two, was sent to Dr. Sutton about the first of June, 1884, on account of a painful enlargement of the lower portion of the abdomen. The pelvis was full, the uterus misplaced; the patient was thin, anæmic, and bore a haggard countenance. After examination, the mass, in which fluctuation was evident, was diagnosticated an abscess. As there was no bed empty in the hospital at the time, she was sent home with a letter to her physician, requesting him to tap the collection without delay. This was done by Dr. J. Q. Robinson, of West Newton, on the following day, and a very large quantity of pus was evacuated. For two weeks the patient improved in every way; by the end of three weeks the sac was full again, and she was suffering pain. Again she was sent back to Dr. Sutton, who received her into his private hospital on June 21st, and performed Mr. Tait's operation on June 24th in the presence of Dr. Robinson, of West Newton, Pa., and Dr. Knox, of McKeesport, Pa.

An incision two inches long was made through the abdominal wall, and all bleeding was so effectually controlled that no blood entered the cavity of the abdomen. The peritoneum at the edges of the abdominal wound was then closely stitched, with antiseptic silk, on to the dome of the abscess sac lying in full view. The sutures were cut short, to be left. An aspirator trocar was introduced through that portion of the sac wall left exposed, and pus was immediately found, but it was so thick that but little could be withdrawn. The sac was now laid open and nearly a quart of pus and blood-clots was removed from its interior. The wound was cleansed of all pus and blood and well dusted with iodoform. A large glass drainage-tube was introduced to the bottom of the sac, and the wound was closed with silk-worm-gut-sutures above and below it. Each suture included the pus sac which was thus secured to the abdominal wound by a double row of sutures, viz., the row uniting the peritoneum to the peritoneum covering the sac and the row closing the abdominal wound, each suture also including the sac. Prior to the operation her temperature was 99°. Six hours after the operation her temperature fell to 98.4°, and never rose above normal afterwards. On the sixth day a smaller glass tube was substituted for the large one. On the eighth day this was removed and a small rubber tube inserted. This tube and the stitches uniting the abdominal wound were removed on the fourteenth day. She returned home on the twenty-second day after the operation appar-

ently perfectly cured, and no further trouble has been reported.

The operation was in every way satisfactory, and Dr. Sutton remarked that Mr. Tait had, by giving us this operation, done much practical good for this class of cases. — *Med. News.*

TREATMENT OF PUDENDAL HEMATOCELE.

As regards treatment, there seems to be some diversity of opinion among authors, for the directions laid down by them are not uniform, yet a general rule of procedure can be deduced therefrom. In both of my traumatic cases I was in the outset, from lack of experience, at a loss how to treat them; I became only more perplexed after I had consulted the views of various authors, and I finally decided to act as I did in the cases mentioned.

Of course, it is a well-settled principle of surgery *never* to incise a recently-formed effusion of blood, lest uncontrollable and fatal hemorrhage ensue. Hence, when seen early, or when effusion of blood is still going on, our efforts should be directed to the arrest of the hemorrhage, by the application of cold and pressure. As already stated, small effusions may become absorbed or encysted, and all the treatment required in these cases is to keep the patient quiet and to apply evaporating lotions with pressure. A good method of applying internal pressure in these cases is that suggested by Prof. Lusk. It consists of this: A rubber bag or a large Barnes' dilator filled with iced water should be adjusted in the vagina, and then, by the double action of cold and pressure, the hemorrhage may be checked. Opiates may be given to relieve pain.

In those cases in which the effusion is so large that absorption is improbable, it will be necessary at some time in the history of the case to incise the tumour. If we wait till suppuration shall have set in, we will run the risk of sepsis. Hence it seems to me that, after waiting a reasonable time after the occurrence of the extravasation, and when we think that the hemorrhage has ceased, it is preferable to incise the tumour, clear out the clots, wash out the resulting cavity with an antiseptic solution, and make use of iodoform with firm pressure.

If the bleeding should continue, however, after thus incising the swelling after a reasonable period of time shall have elapsed, then the bleeding vessels should be secured by ligature. It has even been recommended to apply the thermo-cautery to the bleeding cavity, after the swelling has been opened in order to arrest the flow of blood.

If the effusion occur during labour, and it be sufficiently large to impede the birth of the child, it is proper to make a free incision at the most dependent part, and the advancing portion of the child will act as a tampon to control the hemorrhage. If it occur before the presenting part has descended, pressure must be applied. If it form after the birth of the child, it should be treated as one of an extraneous traumatic origin. At whatever period the incision may be practised, it is not advisable to remove all the clots at first; leave those which seem to adhere, and they will gradually come away with the subsequent dressings. The incision should be free and not merely a puncture, and after the clots have been extracted the natural contractility of the parts will cause the wound soon to close up. As regards the part of the tumour where we are to operate, we must always be guided by the fact that it is necessary to secure free drainage from the wound. Hence it should always be opened at its most dependent part, even if there should be indications of pointing elsewhere. It is usually preferable to cut on the inner or vaginal side of the labium majus.

If, when the effusion is small, no sign of absorption occur after a reasonable period of time, then it will be proper to employ hot poultices to encourage suppuration, and as soon as pointing takes place, the pus should be liberated. The discharge will sometimes emit a distinctly stercoral odor which might possibly lead to the erroneous opinion that the hematocele is complicated with a recto-vaginal fistula. It has been well demonstrated by surgeons that, in abscesses near the rectum, it is quite usual, without any communication being present with the intestines, for the purulent matter to possess a fecal odor.

Since the great mortality in former times was most probably due to septic infection from absorption of the purulent and decomposing san-

guineous constituents of these effusions, it is very necessary and important that the antiseptic method should be rigidly carried out in the frequent irrigations of the cavity with disinfectant lotions, preferably of the bichloride of mercury 1 part to 2,000, or of phenic acid of a two per cent. strength. Then all the indications for treatment will have been met, and a favourable result may be, in very nearly all cases, confidently expected. — *Fruitnight, in American Journal of Obstetrics.*

THE

Canadian Practitioner.

(FORMERLY JOURNAL OF MEDICAL SCIENCE.)

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We regret to learn that, from some cause unknown to us, copies of the Journal have lately gone astray. Any of our subscribers who have not received it regularly, may obtain the missing numbers on application to Dr. Aikins, by post-card or otherwise.

TORONTO, OCTOBER, 1884.

MR. LAWSON TAIT'S ADDRESS ON ABDOMINAL SURGERY.

Mr. Tait's address, delivered at the recent meeting of the Canada Medical Association, which we published in full in our last issue, contains, as was to be expected from such a brilliant light in his department, much that is interesting and worthy of comment.

He commenced by contrasting in rather a happy manner the new and old worlds. He referred to our spirit of progress as opposed to the extreme conservatism of Great Britain, and gave many instances of each. In speaking of his own work at Birmingham, he thought the visitors from this side of the water were more fair in their judgments, which were formed apart from any "prejudice, tradition or personal bias." It may be that we have been able to form a pretty correct estimate of Mr. Tait's wonderful achievements; but the reasons given do not cover the whole ground. We can add another which has had much to do with the prejudice against the *man in Birmingham, i.e.*, local jealousy, which has been especially manifested on the part of the metropolitan surgeons towards those living outside London, including particularly those of the provinces.

A few years ago the Londoners thought nothing good could come out of Birmingham, and, at the same time, the worst thing in it was Lawson Tait, whom they accused of being everything but a truthful, honest, and successful surgeon. In this respect they certainly showed the *bias and prejudice* much more than the influence of *tradition*. Mr. Tait himself appears to be anxious to throw off extreme conservatism, but he holds on to a little *prejudice* and *bias*, as exemplified in his rather caustic remarks in referring to the work of Sir Spencer Wells. It is scarcely fair to compare results as he has done, and say in the way he does that Sir Spencer had an average mortality of 25 per cent. in his thousand cases, while he (Tait) and Keith have got down to 3 per cent., which, by the way, is a marvellous record. Sir Spencer Wells should be considered, as he practically was, the great pioneer of ovariotomy in England, and the surgeons of the present day have had the opportunity of learning from his vast experience, and should be placed in the position of commencing where he stopped, and if they have made improvements it is simply what we might expect under the circumstances.

In justice to Mr. Tait, however, we must say he hits straight from the shoulders, attacking the methods of Sir Spencer's operations, and not his private character. There is a manliness about his pugnacity, which we cannot but admire, and which has not always been exhibited by his opponents.

EARLY HISTORY OF ABDOMINAL SURGERY.

In referring to the early history of abdominal surgery, Mr. Tait mentions the fact that Robert Houston, early in the 18th century, in a Scotch village, unwittingly performed a successful ovariotomy, which he commenced with the simple intention of tapping. Some of our friends in the United States do not like this statement,

because they think it detracts somewhat from Kentucky's great McDowell, to whom, however, Mr. Tait gives due credit for bringing this "young seedling to full growth."

Mr. Tait also gave due credit to Charles Clay and Baker Brown for their share in this great work, which we think is well deserved; but here again he institutes a comparison with the work of Wells, which is in some respects unjust.

RECENT OVARIOTOMY.

Among the most important points in connection with the operation is the treatment of the pedicle, and it is now an accepted fact that the intra-peritoneal is the proper method. We agree with Mr. Tait, that Keith deserves the highest credit for relinquishing the clamp as it had been used by Wells. A curious fact is here noted, *i.e.*, that hysterectomy, with the clamp, is more successful in the hands of Bantock, than ovariotomy was with Wells while using the clamp. The probable explanation given is, that it was not so much the clamp that was responsible for the high mortality as the method of using it, and that the application of the perchloride of iron to the stump, was the great source of danger, as it was impossible to prevent its passage into the peritoneal cavity, where it in many cases set up peritonitis.

The question of Listerism in connection with abdominal surgery will probably be decided according to the individual views of different operators, but Keith and Tait have clearly proved that it is not essential to success—in fact, the poisoning from carbolic acid is occasionally a source of serious danger. Notwithstanding the experience of these two wonderfully successful operators, we still believe that Listerism, properly carried out, is the safest system for most of surgeons who have not the unusual facilities and advantages connected with private or special hospitals.

Of Mr. Tait's methods we have but little to say. We consider them as almost beyond criticism, and about as near perfection as possible. Wherein he differs from Mr. Keith, though the differences may be but slight, we think he is generally right. Especially in the treatment of the pedicle, we think Tait's use of the ligature is an improvement on Keith's plan with the cautery.

UTERINE MYOMATA.

In speaking of this form of uterine tumours, Mr. Tait draws a distinction between the old and new schools: the aim of the former being, as he says, simply to save life, while the latter endeavour, in addition, to relieve suffering. Two alternatives are given in the treatment, viz., the removal of the uterine appendages, which is commonly known under the name of Tait's operation; and supra-vaginal hysterectomy. Why removal through the vagina, after the various methods employed, should be ignored, we do not know; but the discussion of the two operations named is very interesting, if not entirely satisfactory. Tait's operation is the safer of the two, but, unfortunately, uncertain in its results. It is admitted that the removal of the appendages exercises no control over the soft œdematous myoma, which is said to be difficult to recognize before removal. Many surgeons will be inclined to hesitate before recommending such a serious operation with a prospect of its resulting in no benefit to the patient. But here Mr. Knowsley Thornton comes to the rescue, and suggests that in these cases the appendages should first be removed, and if no benefit ensue, that hysterectomy be performed. Such a proposal, coming as it does from the most ardent disciple of Sir Spencer, the *blue Tory surgeon*, who "delayed the progress of abdominal surgery for fully a quarter of a century," should encourage Mr. Tait to hope that a brighter era is dawning on his country, and that the extreme conservatism over which he mourns may possibly give place to a radicalism which will quite satisfy his most lofty aspirations. Hysterectomy has generally been considered a very formidable operation; but the results of Thornton and Bantock have been so brilliant that much may be expected from it. Whatever we may think of any or all these operations, it is well to remember that our choice must of necessity depend largely on the surrounding circumstances; and as we cannot know exactly these conditions before making the exploratory incision, the surgeon should always be prepared, as far as he can be, to do that which is best in each particular case.

In reply to Dr. Gardner, Mr. Tait considered the removal of the appendages safer than

enucleation, and said he had published cases where fresh tumours had grown after enucleation, and the former operation had been found necessary ultimately. We have still an idea that enucleation is very suitable for certain cases, and feel inclined to suggest for the latter, as an improvement on Mr. Thornton's proposal, first, enucleation; second, if this fail, Tait's operation; third, if necessary, supra-vaginal hysterectomy. This would give our patients a fair number of chances, but some might prefer to keep their myomata.

DISEASES OF THE APPENDAGES.

Mr. Tait has in recent years thrown much light on a very obscure subject. The number of patients suffering from severe and constant pelvic pains, resulting from former inflammations, is large. Medicines or local treatments afford no relief. In such cases Mr. Tait has found diseases of ovaries and tubes, the latter being occluded and distended by serum, pus, or blood. He has operated in many such cases, and afforded marked relief. It is a matter for regret that a positive diagnosis cannot always be made, although, as a general rule, certain symptoms and physical signs are present, which leave little doubt of the existence of incurable diseases of tubes or ovaries, or both. There is every reason to hope that with increased experience Mr. Tait may be able to diagnosticate such conditions with almost absolute certainty. The removal of these diseased appendages is attended, in some cases, with very serious difficulties, even in Mr. Tait's hands, but the results in the great majority have been exceedingly satisfactory.

OPERATIONS IN THE ABSENCE OF OBJECTIVE SIGNS.

Mr. Tait approaches the question of Batty's operation with considerable reserve. There is probably no doubt that all women afflicted with nervous disorders are worse during the menstrual periods, and occasionally the bad symptoms occur only at these times; but, at the same time, the remedy proposed by Batty, of bringing about the menopanse by the removal of the ovaries, has not been generally received by the profession with any marked signs of approbation. In certain forms of unmistakable epilepsy, or insanity, the procedure may occasionally be justifiable, but thus far there is exceedingly little evidence in favour of it. The simple fact that improvement is said to have taken place in some cases amounts to but little, unless indubitable proofs be afforded of positive cures in patients afflicted with serious, and otherwise incurable, nervous affections. Dr. Hingston, in the discussion, took strong grounds on this question, and thought that unnecessary operations of this kind were a crime against society, and interfered with the interests of the State. Mr. Tait himself considered it a doubtful kind of procedure, and refused to express a strong opinion in its favour, but trusted that the freedom from the prejudices and shackles of tradition which existed on this side of the Atlantic would secure for it a fair field. In the early part of his address he refers rather sadly to his own weakness, caused by these same unfortunate "shackles" which had so much affected his fellow-countrymen. We had never heard of Mr. Tait being accused of possessing any alarming amount of extreme conservatism: in fact, he and many others appear to be shaking off the shackles with fair success. Mr. Tait and his fellow-labourers are doing grand work in their special department—probably the most wonderful the world has ever seen—and we doubt much if a little sound conservatism will injuriously affect their brilliant exploits in abdominal surgery.

ONTARIO MEDICAL COUNCIL.

It is a matter of the greatest importance that worthy men should be selected to represent the Profession in the Ontario Medical Council. The coming election will be held in May next, and the names of the candidates should soon be known. The plan adopted in some districts of nominating candidates at the regular meetings of county societies is a good one. Physicians who attend societies are generally the most progressive, and the best able to make a suitable choice. It occasionally happens, however, that one county or pair of counties is opposed to another, and sectional jealousies may thus interfere with a judicious selection. We hope that in all cases the matter will be most carefully considered, and that none but *good and true* men will be elected.

THE INTERNATIONAL MEDICAL CONGRESS.

The next meeting of the International Medical Congress will be held in Washington in the year 1887. We find that many have the impression that it was to be held next year (1885). These meetings take place every three years as a rule. In 1881 the meeting was held in London, Eng.; this year in Copenhagen.

This will give our friends time to pursue their scientific or practical investigations in procuring material for their papers.

DEATH OF PROF. J. COHNHEIM.

Scientific medicine has met with a loss in the death of this eminent histologist and pathologist, which occurred at Leipzig on the 14th ult., from renal disease. He was in his forty-sixth year, and held at the time of his death the Chair of General Pathology and Pathological Anatomy in the University of Leipzig. He was one of the most distinguished of Virchow's pupils, an earnest worker, a polished writer, and an honoured and successful teacher; his observations on inflammation are well known. To him belongs the honour of having discovered and correctly interpreted the escape of the white corpuscles from the walls of the blood-vessels in inflammation.

MAL-PRACTICE SUIT.

ROBERTSON *vs.* BONNAR.

We have received a detailed account of this trial from Dr. White, of Toronto, which, we regret to say, is too late for this issue. The plaintiff brought an action for $2,000 damages against Dr. H. A. Bonnar, in a case of fracture of the femur at the junction of lower and middle thirds. The ordinary treatment had been pursued, of applying extension with weight and pulley, coaptation splints being applied three weeks after the receipt of injury. After six weeks, patient was allowed to leave his bed. Some time after this the condition found was swelling of leg and thigh, stiffness of ankle and knee, slight malposition of broken ends, and one inch shortening.

Drs. White and Fulton, of Toronto, and many local men were called as witnesses, and the weight of evidence favoured the treatment pursued. The jury, after being out a long time, disagreed, and no verdict was returned.

THE PROPHYLACTIC POWER OF ARSENIC IN MALARIA.

A number of experiments in this direction have been made on workmen on the Roman and South Italian Railways. The drug was administered to those who were largely exposed to the infection of malaria.

Dr. Ricchi, the chief of staff, is convinced that "if arsenic is not always preservative against the malarious infection, it renders the human organism less and less susceptible to the ferment of malaria."

ERIE AND NIAGARA DIVISION IN MEDICAL COUNCIL.

At a meeting of the Brant County Medical Association, held in Brantford, September 2nd, Dr. D. L. Philip, of Brantford, was nominated as a candidate for election in the Erie and Niagara Division.

At a meeting of the County of Haldimand Medical Association, held in Caledonia, September 19th, Dr. Harrison, of Selkirk, was chosen as candidate for the same division. Both having accepted their nominations, there will be a contest between Drs. Philip and Harrison. Each is popular in his own district, and would probably make a good representative.

It is a matter of regret that local feelings will largely influence the voting.

LISTERISM IN ABDOMINAL SURGERY.

Since our comments on Mr. Lawson Tait's address went to the printer we have seen, in the *American Journal of Obstetrics* for September, a letter from Mr. Knowsley Thornton, in reply to some statements of Mr. Tait's about the comparative results of Dr. Bantock and himself in hysterectomy and ovariotomy at the Samaritan. It was contended that Bantock's results were better than Thornton's, especially in hysterectomy, since the former gave up

Listerism. Mr. Tait said, in Montreal, that Mr. Thornton had 5 deaths in 12 cases of hysterectomy, with Listerian details carried out as far as they could be, while Dr. Bantock had only 2 deaths in 22 cases, without Listerism.

Mr. Thornton says these figures are misleading, and in some respects incorrect, the mistake having arisen from incomplete reports at Societies. He goes on to show how errors have crept in, and at the same time gives us an idea of Bantock's correct statistics as well as his own. His report is not particularly clear, but as far as we can make out, the results in hysterectomy are :—

Thornton, 41 cases with 12 deaths.

Bantock, 37 cases with 11 deaths.

The results of ovariotomy were, before they adopted Listerism :

Thornton, 33 cases with 5 deaths, mortality 15 per cent.

Bantock, 36 cases with 8 deaths, mortality 22 per cent.

After they adopted Listerism,

Thornton, 129 cases with 15 deaths, mortality 11 per cent.

Bantock, 113 cases with 16 deaths, mortality 14 per cent.

After this Bantock abondoned Listerism and the results are,

Thornton, 174 cases with 10 deaths, mortality 5.7 per cent.

Bantock, 92 cases with 16 deaths, mortality 17 per cent.

According to these figures, Mr. Thornton has had 303 antiseptic cases with 25 deaths, or a mortality of about 8 per cent., and he challenges Mr. Tait to publish a complete series of his non-antiseptic cases of ovariotomy *for tumour* to compare with his (Thornton's) series.

TORONTO MEDICAL SOCIETY.

The opening meeting of the Toronto Medical Society took place in the Canadian Institute, Thursday evening, Sept. 25th. There was a very full attendance of members, many of whom, no doubt, came to meet Prof. Osler, who favoured the Society by his presence.

As it was the evening for the presentation of pathological specimens, several were exhibited, one or two of whom were very unique. A more lengthened description of these will be given in a future number.

At the conclusion of the regular meeting, the members of the Society were invited by the President, Dr. Reeve, to an elaborate supper in the reading-room of the Institute. After justice had been done to the very excellent bill of fare, the President, in a neat and appropriate speech, proposed the health of the guest of the evening, Dr. Osler. The Doctor replied in his usual happy manner. He referred to the pleasant memories he had of the earlier part of his career as a student of the Toronto School of Medicine, and to the many ties which bound him to Toronto.

Several toasts followed, and short addresses were given by many gentlemen present. Among others might be mentioned Drs. Workman, Coventon, Cassidy, Oldright, Temple, O'Reilly, Graham, Burns, and Cameron. A general regret was expressed that Dr. Osler was leaving Canada, while at the same time the honour conferred upon his native country by his selection to such an important and honourable position in Philadelphia was fully appreciated.

Meetings of Medical Societies.

MEETING OF THE CANADA MEDICAL ASSOCIATION.

The meeting for 1884 was held in Montreal, commencing at 10 a.m. Monday, August 25th the retiring President, Dr. Mullin, in the chair. He at once called on Dr. Sullivan to preside over the proceedings. Mr. Lawson Tait, of Birmingham ; Drs. Brodie and McGraw, of Detroit ; the Past President of the Association, and Dr. Worthington, President of the Ontario Medical Association, were asked to take seats on the platform. Dr. Hingston, Chairman of the Reception Committee, extended a cordial welcome on behalf of the profession of Montreal.

Dr. Fulton then read the report on Necrology, and the Secretary, in the absence of Dr. Canniff, read the report on Climatology.

The following Nominating Committee was then appointed :—Drs. Roddick, Kennedy and

Rodger, Montreal; Adam Wright and Sheard, Toronto; Campbell, Seaforth; Tye, Chatham; Earl, St. John; Sullivan, Kingston; Mullin, Hamilton; Wishart, London; Harrison, Selkirk; and Dr. Bray, of Chatham, the mover.

The Chairman appointed the following gentlemen officers for the sections:—Medical section—Chairman, Dr. Thorburn; Secretary, Dr. Burt. Surgical section—Chairman, Dr. Roddick; Secretary, Dr. Tye.

The meeting then adjourned till two o'clock.

At the afternoon session Dr. Sullivan read the President's Annual Address, which was a very able one, and was exceedingly well received. He referred to the formation of the Association eighteen years ago, and the good it had accomplished. He said that two principal objects reminded us in each revolving year to attend these meetings: 1st, Social friendly intercourse; 2nd, Scientific progress. He then quoted Canadian statistics showing the large mortality from preventible diseases, and the resulting loss to the State from a simple money point of view. This Association should sound the note of alarm.

He then referred to the status of the profession in Canada. While the medical schools were doing good work, it was the duty of the State to see that graduates were well qualified for their work. Ontario had set a good example in appointing a Central Examining Board for all classes of practitioners in the Province, and the examinations were continuously becoming more thorough and practical in their character. Why not make such a law for the whole Dominion? Canada had settled the question of female medical education, as two fully-equipped colleges were recently founded for women only.

The collective investigation of diseases had been attended with the best results in the British Medical Association, was warmly endorsed by the American Association, and its adoption by our own Society should be considered. It was a matter for regret that our "transactions" were not published.

The speaker then spoke of the advisability of having unbiassed expert testimony in medico-legal cases; the great advances made in recent years in sanitary laws; the wonderful progress in general medicine and surgery; and closed his eloquent address by extending a very cordial welcome to the members of the British Association for the Advancement of Science.

MEDICAL SECTION.

Dr. Thorburn in the chair.

Dr. Campbell, of Seaforth, read a paper on *Puerperal Septicæmia*, in which he reported five cases. In all instances he found more or less laceration of the cervix, and considered it the cause of the blood-poisoning.

Dr. Sheard mentioned cases where at the autopsy no lacerations of the uterine tract could be found.

Dr. Adam Wright thought that cervical lacerations were very common, and generally healed kindly. When septicæmia occurs there is generally some special cause for it.

Dr. Lapthorn Smith always used prophylactic vaginal injections and other antiseptic precautions.

Dr. Harrison thought lacerations of cervix were not necessary for the absorption of septic matter, as the raw surface of the interior of womb was likely to absorb it.

Dr. Patterson thought puerperal fever was caused either by self-infection, or by causes operating from without. Had seen examples of both in his own practice. The poison might be absorbed by the lying-in woman by the lungs, or in some unexplained way, without introducing any poison into wounds.

Dr. Brodie thought the cause was often in existence before the birth of the child, and was frequently erysipelatous.

The Chairman, Dr. Thorburn, had found a close connection between erysipelas and puerperal fever.

Dr. Campbell, in reply, thought his cases were autogenetic in character, the discharges being absorbed by the lacerated surfaces.

Dr. Mullin agreed with Dr. Harrison in saying that too much importance was attached to lacerations of cervix, as the poison might enter by other avenues. The retention of membranes, or portions of them, or clots, caused decomposition very frequently, and thus probably caused puerperal septicæmia. One of the greatest safeguards was securing proper contraction of uterus, and consequent expulsion of clots. He

did not attach very much importance to erysipelas as a cause.

Dr. Mackay thought in some cases simple debility prevented involution of the uterus, and as a consequence the disintegrated tissues were carried into the circulation, thus causing septicæmia.

Dr. Dupuis read a paper on nostrums and medical advertising, in which he deplored the results from loss of money and injury done to patients.

Dr. Lett read a paper on *the Opium Habit*, in which he deprecated the treatment of this condition by the sudden withdrawal of the drug, and advised that its administration be kept up in diminishing doses. (See page 301.)

Dr. R. P. Howard read his paper on Dyspnœa in certain forms of Bright's disease. The following points were brought out: 1, That dyspnœa may occur in Bright's disease, and be its first and only symptom. 2, That it may be constantly present or paroxysmal. 3, That Cheyne-Stokes' respiration occurs in all forms of Bright's disease. 4, That Cheyne-Stokes' respiration may be chronic, and is usually an evidence of danger. 5, That dyspnœa may be the result of œdema glottidis in certain cases.

Dr. Osler mentioned a case showing that dyspnœa in Bright's disease sometimes follows acute serous effusion into cavities. He has seen it ocur in a healthy child without being able to discover any cause for it whatever.

Dr. Ross also mentioned two cases of Bright's disease occurring in his practice where Cheyne-Stokes' respiration formed a very prominent symptom.

Dr. Harrison read a paper upon *Cerebro-spinal Meningitis*, in which he described a number of cases of fever, the symptoms being very much those seen in typical cerebro-spinal meningitis. He was sure they were not of the nature of typhoid; the symptoms and the duration were quite different from this. All the medical men in his neighbourhood were convinced it was not of a common kind. It attacked well-to-do people and was very fatal. He treated his cases with potas, bromid and iodid.

Dr. R. P. Howard said the disease was rare in this country. It was apt to occur in isolated places, and he wondered why it should be so.

Dr. Bray had seen one very fatal epidemic in the neighbourhood of Chatham, where the poor coloured people especially suffered.

Dr. Geo. Ross expressed some doubts as to the diagnosis, and thought the cases might be tubercular.

Dr. Osler thought caution in diagnosis was required. Out of four cases submitted to him for *post-mortem* examination (supposed to be cerebro-spinal fever), two proved to be typhoid fever, one was variola, and the fourth alone showed meningeal inflammation.

Dr. Mullin referred to an epidemic in Hamilton, where the cases observed all occurred within a few months. Since that time occasional cases are said to have occurred, but these were probably typhoid.

EVENING SESSION.

Dr. R. L. MacDonnell exhibited two cases of *lateral sclerosis* of the spinal cord. In the first case the symptoms had not lasted more than about nine months; in fact, up to the commencement of the summer the patient had been able to earn his living by cab-driving. On admission to the General Hospital of Montreal in July last, he had spastic gait; exaggerated knee-jerk; clonus at the ankle and knee. There was no interference in the functions of either bladder or rectum. No muscular atrophy. Slight thoracic girdle pains had been present before admission. The upper extremities were entirely unaffected. After three weeks' residence in the hospital the clonus disappeared and was replaced by extreme rigidity of the lower limbs, most distinctly "clasp-knife" in character. Clonus occurs frequently involuntarily, especially on effort. At times a tap over the ligamentum patellæ produces a continued tremor of the whole limb. There was an obscure history of syphilis.

Dr. Osler regarded the symptoms as due to a focal lesion of syphilitic origin in the cord, and thought that the case was not primary, inasmuch as the girdle pains pointed to implication of the posterior columns.

The second case showed implication of the lateral columns alone. The patient, aged 12, had had spastic gait for two years. There were present knee-jerk and ankle clonus most markedly. The upper extremities were unaffected.

The patient had been under observation for about 18 months, and it was thought that there had been improvement.

SURGICAL SECTION—AFTERNOON SESSION.

Dr. Roddick in the chair.

Dr. Blackadder read a paper on a *Case of Congenital Lipoma of the Foot.* The enlargement existing at birth was at once noticed. Pressure by Martin's bandage had been of no service. The tumor was removed by Dr. Roddick when the child was 14 months old. He thought Dr. Busey, of Washington, was correct in referring the condition to congenital disease in the lymphatic system.

Drs. Osler and McGraw referred to cases they had seen.

Dr. Fulton, of Toronto, read a paper on *Thoracaco-plastic Operation of Estlander*, in which he gave a history of a case in which he had performed this operation. The patient, aged 28, had an empyema of some months' standing, which had been regularly washed out for some time. Lungs mostly normal. He made an incision 5 inches long, parallel with the ribs, the periosteum was raised, 3 inches of seventh rib, and two of the sixth, were removed. Hæmorrhage very slight and easily controlled. The cavity was washed and a large drainage-tube was inserted. Cavity washed out daily with solution of carbolic acid and iodine. The cavity is closing up rapidly, and general health improving. It is likely that the drainage can soon be discarded.

The place of incision must depend on circumstances, the side of chest, however, being the best. Portions of 2, 3, or 4 ribs may be removed, but 1st, 2nd, 11th, and 12th must not be touched.

Drs. Hingston, Holmes, Kerr and Roddick discussed the subject. Dr. Roddick said his rule now in the Montreal Hospital was to excise about an inch, or perhaps more of the rib, and drain with a large metal tube, using antiseptic precautions throughout.

Dr. Shirriff then gave a history of a case of hæmorrhoids crushed after Pollock's plan.

EVENING SESSION.

Dr. Fenwick read a paper on *Abscess of Abdominal Parietes extending from Meckel's Diverticulum.*

Dr. R. P. Howard reported a case of acute inflammation in the umbilical region with discharge of pus. There was deep-seated induration—advised rest and application of poultice. In a few days a semi solid concretion about the size of a bean escaped. Five altogether were passed, and the patient recovered. He thought it was connected with the bowel through the umbilical vesicle which had remained pabulous.

Dr. King, of Hull, Eng., spoke of a kind of abscess which first appeared as a hard swelling, deeply seated. Such probably began in the muscles, and sometimes sank towards inguenal region, where they looked like carbuncular swellings, and on being opened healed quickly.

Mr. Lawson Tait thought that in a case of this kind we should act according to the ordinary principles of surgery. In other parts of the body if we found an abscess we would cut down, and find cause for it. We should get rid of the traditional fear of interfering with the peritoneum, as we were as much justified in opening the abdomen to relieve suffering as in opening a periosteal abscess, or in giving opium to relieve pain.

Dr. Shepherd read a paper on Ligature of the Anterior Tibial Artery in a case of compound fracture of the leg.

The case was that of a quarryman, aged 50, who had received an injury from a falling stone. He was brought to the Montreal General Hospital, and there Dr. Shepherd found that he had sustained a compound fracture of the upper third of the right leg. The leg was put up in plaster, an opening being left opposite the wound in the soft parts. Everything went on well for five or six days, when tl man complained of pain and a throbbing sensation at the site of injury; on removing the dressings a pulsating swelling was seen on the front of the leg, the posterior tibial being felt behind the inner malleolus. It was surmised that the anterior tibial had been lacerated. The pulsating swelling increasing next day, Dr. Shepherd cut down on the bleeding vessel, turned out the clots of the false aneurism, and with considerable difficulty ligatured the anterior tibial above and below the bleeding point,

which was found to be just in front of the point where this vessel perforated the interosseous membrane. The vessel was reached by enlarging the wound, and separating the tibialis anticus muscle from the bone. The bones were then wired together and the leg dressed with dry iodoform dressings. The man did well, and good union resulted. The patient was exhibited to the Association.

Dr. Gardiner read a paper on *Burns and their Results*. He gave the results of his experience in treating a large number of burns. After describing the different varieties, he referred to the great importance of the nervous element. In treatment we should adopt both constitutional and local, and be careful to look after those in certain localities, as, for instance, in the larynx, where tracheotomy is often necessary.

Dr. Stewart then read a paper on *Actions and Uses of Naphthalin*, which we will publish in next issue.

Dr. Proudfoot had found the action of naphthalin more efficacious than iodoform in the treatment of ulcers. He also used it to restrain odour in gonorrhœa.

Dr. Shepherd had found in granulating wounds that iodoform acted, as it caused the granulations to become flabby. He frequently used balsam of Peru, or, more recently, naphthalin, in such cases; the balsam was, however, the best stimulant.

Dr. Roddick had used naphthalin in chronic ulcers with satisfaction. He combined it with boracic acid to facilitate dusting. When there is much discharge he used naphthalized jute as a dressing. Ordinary jute sprinkled with naphthalin answered very well.

Dr. Reeve then read a paper entitled *Remarks upon Fifty cases of Trephining of the Mastoid.* General remarks: acute suppurative inflammation of the tympanum of the greater import, because the mastoid antrum, and often the other air-cells, form, pathologically, an essential part of the middle ear (tympanum); the necessity for the operation would be much diminished were timely treatment of acute inflammation of the middle ear more generally followed: rest, local depletion, irrigation, anodynes, vapor bath, incision of bulging drum-head, or down to bone on the process, and in meatus to relieve secondary periostitis, etc., etc., would very often arrest the disease; the persistence of pain in an otitis media, or its recurrence, after discharge has appeared is often significant of Mastoid implication: chronic suppurative otitis should never be neglected: the three principal pathological conditions for which the operation is indicated—unrelieved suppurative periostitis of antrum, etc., ostitis with caries, and ostitis with hyperostosis (condensing ostitis, Buck), with their symptoms; the method of operating —some form of drill used not the trephine; protracted delay of it not advisable; statistics of the series incomplete, but eight deaths known—only one, however, fairly traceable to the operation (middle fossa penetrated), and several apparently due to general or concurrent disease; lateral sinus opened in one case, but patient recovered; the operation, a valuable and comparatively safe one.

TUESDAY MORNING—GENERAL MEETING.

Dr. Mullin read the report of the Committee on Ethics. After some remarks from Dr. Dupuis, and a reply from Dr. Mullin, it was resolved that the report be sent to the Publication Committee to be published.

Mr. Lawson Tait then delivered his Address on *Abdominal Surgery*, which we published in full, with discussion following, in our September number.

MEDICAL SECTION—AFTERNOON SESSION.

Dr. George Ross presented two specimens of Aneurism of the Aorta. In the one case the physical signs of tracheal plugging had been present: in the other they were not.

Dr. Worthington read a *Report of two Cases of Polyuria*, one of which was complicated with exophthalmic goitre. The greatest quantity of urine passed in twenty-four hours in this case was six and a half pints. Specific gravity 1.010, acid reaction. The enlargement of the thyroid gland was not what is usual in this disease, but the exophthalmos was well marked, as much difficulty was experienced in closing the eyelids. He was obliged to rise six or eight times in the night to urinate. No assignable cause could be found, though the history

of the case was traceable ten years back. In this case there appeared to be a strong tendency to the formation of uric acid, and consequent waste—his weight being usually 180, but decreased to 143. It seemed to him that a pathological connection may yet be found between exophthalmos and polyuria—the origin of both being apparently influenced through the vaso-motor system, and amenable to the same treatment. In the second case the attack was sudden, and she was passing 20 pints when he first saw her and increased to 25¾ pints in twenty-four hours, and gradually diminished to 15 pints, at which time she went to England and was considerably benefited. He saw her after her return and she was then passing 10 pints in twenty-four hours, had a good appetite and was enjoying life fairly well. Her thirst was very great, and continues in a less degree. In this case there was retroversion and retroflexion of the uterus. She had one child over eight years ago, but has not been pregnant since. The specific gravity of the urine was 1.002, and increased to 1.005. Her skin was continuously dry and harsh—menstruation had ceased for some months. Ergot did no good in this case. The benefit derived was from gallic acid, in xv. gr. doses, thrice daily. She is not taking any medicine at present, and drinks tea and coffee, and says that she is determined to enjoy life while she can.

Dr. George Harley, London, Eng., objected to the term diabetes insipidus, and preferred the term polyuria. Lay people feared the word diabetes, and could not draw a distinction between the two varieties; the moral effect on patients, therefore, was of a very depressing character. What is the cause of polyuria? It may sometimes be connected with congestion of the kidneys, but it often exists in a state of chronic atrophy. How rapidly is the urine secreted? In making experiments with dogs, he empties the bladder with a catheter, then, in five minutes, catheterizes again. He also exposes the uretus, and watches the drops as they flow: sometimes one minim per second, in man; sometimes two drachms per minute. This must have been the case in one of Dr. Worthington's patients, where twenty-five pints were passed in twenty-four hours. What is the exciting cause? Very often this cannot be traced. You can easily make saliva flow. How easily urine flows under the influence of diuretic remedies. The kidneys are not altered, but you create a secretion, which is mechanical. In saccharine diabetes the sugar is the essence of the disease, and the quantity of water is only for the purpose of eliminating the sugar. It is something in the system which nature takes means to get rid of. Both these diseases are hereditary. He had seen a family presenting a remarkable instance of this fact. The grandfather, son, grandson, and his two boys were all diabetics; one little girl had escaped. Treatment of polyuria is very unsatisfactory; nothing is known to cure. The only satisfactory management is the care of the patient's general hygiene. Nothing less than 100 oz. per diem is to be called polyuria. He noticed specially the very low specific gravity in one of the reported cases, 1.001, which was actually lower than that of river water.

Dr. Sloan spoke of a case of polyuria where the amount of urine was very large, and the specific gravity 1.003. Iron was of no use. Bromide of potash and ergot appeared to do good.

Dr. Sheard spoke of certain cases of diabetes mellitus, in which he had opportunities of examining the brain centres. Microscopical changes had been found. He thought as microscopical investigations continued, the pathology of both these diseases would be better understood.

Dr. George Ross had found in polyuria the existence of a changed structure in the great semilunar ganglia of the sympathetic. He had found a case of polyuria in a woman who had secondary cancer of the liver. He thought the co-existence of exophthalmic goitre of great interest, as showing in the same individual disorder of another portion of the great sympathetic system.

Dr. Brome read a paper on *Impaction of the Pregnant Uterus in the Pelvis as a Cause of Abortion*, giving a report of cases which had occurred in his practice. Drs. Protheroe Smith, McMillan, and Trenholme, took part in the discussion.

Dr. Mills gave a description of the methods

used in Germany for testing the presence of sugar in the urine.

Dr. Gardner read a paper on *Common Errors in Gynæcological Practice*, in which he referred to the following mistakes:—1. Overlooking slight forms of pelvic peritonitis; 2. Mistaking an inflammatory exudation or fibroid for retroflexion or retroversion of uterus; 3. Overlooking shortening of ligaments, especially the posterior; 4. The injudicious use of pessaries in displacements of uterus—they were useful in certain cases, but care must be exercised; 5. Expecting too much from local treatment or operative interference, while constitutional treatment was neglected.

Dr. Heywood Smith, of London, Eng., said that in ennumerating the morbid conditions that might be mistaken for slight attacks of pelvic cellulitis, or even might result in it, we must not omit to mention pelvic hæmatoceles; this condition, he considered, existed more frequently than one ordinarily supposed, and was not unfrequently the result of an early abortion, or even of the rupture of a small extra-uterine fœtation. With regard to the risk of operative interference, by tents or otherwise, as, *e.g.*, the replacement of a retroflexed uterus, we must bear in mind the chain of events that followed a strain or similar accident. First, the uterus got misplaced, then there arose passive congestion and consequent chronic inflammation, resulting often in induration. Now, in treating such cases, we must begin in the reverse order—first of all, subdue the inflammation by absolute rest, leeches or puncturing of the cervix, followed by tampons of wool saturated with glycerine and hot (112°-120° F.) water injections, night and morning for a week, and only after the uterus has been rendered fit to suffer the passage of the sound without pain should we proceed to its replacement and the introduction of a suitable pessary. Of course these remarks did not apply to those cases where no inflammation exists, and where we might proceed to replacement, and where the introduction of a pessary would often result in a cure with no further means. We must always remember that many of these cases of retroflexion are very tedious, requiring 12, 18, or 24 months to effect a cure. With regard to what had been said about the tension of the utero-sacral ligaments, there was no doubt sufficient attention had not been given to this condition. In a case where there was retroflexion of the uterus, when the uterus was replaced and held so, the utero-sacral ligaments were found very tense; in this case he divided the right ligament with the result of (after a slight peritonitis) a perfect cure of the retroflexion. As to the differential diagnosis of retroflexion and post-uterine tumor of all sorts, the use of the uterine sound should invariably be had recourse to as alone giving the desired information.

Dr. Trenholme thought slight attacks of pelvic inflammations were frequent, and sometimes not very important. There was not, therefore, much danger in overlooking them. He thought there was little probability of even a student mistaking an exudation for a dislocated uterus. Uncomplicated cases of dislocation of uterus, especially retroversions, were generally curable.

Dr. Gardner, in reply, believed in the efficacy of pessaries, but a great deal depended on the case. Simple, uncomplicated cases of dislocation of the uterus was, in his experience, a rare curiosity. He agreed with Dr. Smith about the frequency of mistakes with reference to hæmatoceles. He rarely used the sound in replacing the uterus, as he considered it dangerous.

Dr. Playter read a paper on *The Relation of the Medical Profession to the Public*, in which he urged that greater attention should be paid to the prevention of diseases.

Dr. McMillan, of Hull, Eng., thought a physician should be retained to give advice in general on sanitary matters and receive extra fees for extra duties. As regarded the working classes, in the cities in England they formed clubs, and by paying a small subscription each retained the services of medical men on whom they could call at any moment. The fact that a working man knew he had a physician thus at call would induce him to apply for aid at first symptoms of disease and thus prevent a great deal of misery and suffering.

Dr. Gurd presented a patient in whom a murmur could be heard at a short distance from the mouth, transmitted apparently up the trachea

from the chest, in which, in the mitral region, a systolic murmur could be heard.

SURGICAL SECTION—AFTERNOON SESSION.

Dr. Major read a paper on *Buccal Breathing.*

Dr. Elsberg, of New York, made some remarks on the subject.

Dr. Proudfoot read a paper on *Paracentesis of the Membrana Tympani.*

Dr. Sutherland presented a case of *Keloid*, with patches on chest, right gluteal region, and right shoulder.

Dr. Oldright read a paper on *Myxo-Sarcoma*, which was a sequel to his paper read at last year's meeting.

Dr. Gardner read a paper on *Some Cases of Uterine Myoma*, in which he gave a history of four cases of submucous fibroids which he had removed by Thomas' serrated scoop. He generally incised the cervix after dilating. In one case he found symptoms of septicæmia on fifth day after operating. After this he used a drain in the shape of two tubes fastened together, these ends being passed into uterus: through these he used frequent and extended irrigations.

Dr. Strange mentioned three cases in which he had operated lately in a similar manner. He did not incise the cervix but trusted to dilatation, because he feared septicæmia. He considered Dr. Gardner's plan of washing out the uterus ingenious. He thought the spoon was a very excellent and safe instrument in performing this operation.

Dr. Heywood Smith said in the cases Dr. Gardner had related, he remarked that the women had had several children. While agreeing with Dr. Gardner's method of operating, and congratulating him on his success which, in some of the cases, was due apparently to his most admirable system of irrigation of the uterus, he wished at the same time to say that, as regards operations on nulliparous women, he entirely went with the observations made by Mr. Lawson Tait in his address in the morning. For wherever a cervix that had been dilated by the passage of a child was ever afterwards dilatable with considerable ease, the cervix of a nulliparous woman was with difficulty dilated; moreover, the bilateral incision of the cervix afforded another opportunity of the ingress of septic matter. He would therefore consider that whereas in multipara submucous fibrous should, if possible, be enucleated, in nullipara the attempt is ever fraught with severest risk, and abdominal section, with the view of removal of the ovares, is by far the less risky operation. As to the use of the serrated scoop he would urge upon the members that wherever it was possible to manipulate in the uterus, it is much safer to use the fingers than any cutting instrument, and thereby lessen the risk of perforation of the uterine wall.

Dr. Buller read a paper on *Jeguirity in Granular Ophthalmia*, which was followed by a discussion in which Drs. Reeve and Patterson took part.

Dr. Shepherd reported a case of *Consolidated Popliteal Aneurism* which was thought to be a sarcoma, and amputation of the thigh was performed.

This case was one of great obscurity, in a man who some ten years ago was treated for popliteal aneurism by digital compression. The aneurism was apparently cured, and the man remained well up to a year and a half ago, when a small tumor formed at the side of the old aneurism. This increased gradually till it reached the size of a child's head. He came into the hospital for treatment in January of the present year. The tumour was situated in the back of the thigh, and extended upwards from the popliteal space to the middle of the ham. The tumour was immovable, smooth to the feel, and inelastic. It gave on palpitation no sense of fluctuation, and there was no pulsation in it, nor was there any thrill felt or bruit heard. After entering hospital the tumour gradually increased in size, and caused considerable pain. Large veins were seen running over the tumour. The leg was useless, and on the supposition that the tumour was a growth connected with the periosteum, the thigh was amputated. The man did well, the wound healing by first intention under dry dressings and iodoform. On examining the tumour it was found to be composed of fibrin, not in layers, but solidified *en masse*. The femoral artery was obliterated above the tumour, and the circulation was carried on by anastamotic branches to the pop-

liteal, as the flow of blood into the tumour was from below up, which accounted for the absence of bruit and pulsation. There was no cavity in the aneurismal tumour, and Dr. Shepherd remarked that it was difficult to understand how the tumour grew, and in what way the new fibrin was deposited. Even had a correct diagnosis been arrived at, amputation was the only suitable method of treatment. A preparation of the tumour was shown to the Association.

Dr. Elsberg exhibited a forceps for removing foreign bodies from the throat. It can be bent to any angle, while the jaws are short and move in a small compass.

WEDNESDAY, AUGUST 27TH—GENERAL MEETING.

Dr. Roddick read the report of the Nominating Committee, which made the following recommendations :—

Place of meeting for 1885—Winnipeg.

President—Dr. Osler, of Montreal.

General Secretary—Dr. Stewart, of Montreal.

Treasurer—Dr. C. Sheard, of Toronto.

ONTARIO.

Vice-President—Dr. Bray, of Chatham.

Local Secretary—Dr. Burt, of Paris.

QUEBEC.

Vice-President—Dr. G. Ross, of Montreal.

Local Secretary—Dr. Bell, of Montreal.

NEW BRUNSWICK.

Vice-President—Dr. Allison, of St. John.

Local Secretary—Dr. Walker, of St. John.

NOVA SCOTIA.

Vice-President—Dr. Fraser, of Windsor.

Local Secretary—Dr. Almon, jr., of Halifax.

MANITOBA.

Vice-President—Dr. Whiteford, Winnipeg.

Local Secretary—Dr. Mewburn, Winnipeg.

COMMITTEES.

Publication—Drs. Kennedy, Fulton and Aikins.

Medicine—Drs. Cameron, F. W. Campbell and Saunders.

Surgery—Drs. Kerr, Kains and Waugh.

Obstetrics—Drs. Holmes, Mackay and Campbell, of Seaforth.

Therapeutics—Drs. Oliver, Sloan and Tye.

Necrology—Drs. Fulton, Graham and Cameron.

Ethics—Drs. Harrison, Murphy and Rodger.

Education—Drs. Pyne, Sheard, Adam Wright, Botsford, Allison and Arnott.

Public Health—Drs. Youmans, Grant, Harding, Robillard, La Rocque, Botsford, Playter, Covernton, Oldright, Bryce, Parker and Kittson.

Arrangements—Drs. A. H. Ferguson, Kerr, Whiteford, Mewburn, Patterson, O'Donnell, Codd, Lynch and Jones, with power to add to their number.

The report on motion was adopted, and it was decided to leave the date of the meeting in Winnipeg to be fixed by President, Secretary and Local Committee. It is supposed it will be about the middle of August.

Drs. King and McMillan tendered the thanks of the British Association for kindness and courtesy received.

Votes of thanks to railway and steamboat companies, Montreal Synod, the Profession of Montreal, the retiring Secretary and the Acting Secretary were passed.

Dr. Osler, after thanking the Association for the honour conferred on him, read an abstract of his paper on Pneumonia as a contagious disease.

After passing a vote of thanks to Dr. Sullivan the meeting adjourned.

ONTARIO MEDICAL ASSOCIATION.

Dr. A. M. Rosebrugh, at the meeting of the Ontario Medical Association, read a paper on *Boroglyceride in the Treatment of Suppurative Inflammation of the Middle ear*, in which the point was emphasized that suppurative inflammation of the drum-cavity is a disease that pre-eminently calls for antiseptic treatment. The indication is to keep the tympanic mucous membrane constantly bathed in a sclution which, while it is antiseptic, is not irritating, and while it is gently astringent it does not form coagulations with the secretions. Solutions of boroglyceride in glycerine seem to meet these indications better than any known antiseptic. Finely pulverized boracic acid has been used with

much success with Bezold and others, but other things being equal, a fluid, at least on therapeutic grounds, would seem to be better adapted to the *mucosa* than a powder, however finely it may be triturated. Boracic acid, moreover, does not supplant, but simply assists other methods of treatment, whereas the boroglyceride, at least in the hands of the author, not only destroys all fetor and quickly arrests the discharge, but it also destroys polypoid granulations without resort to caustics. Boroglyceride is prepared by heating together in an evaporating-pan, two ounces of boracic acid and three ounces of glycerine, the acid being added gradually, and the heat continued until the mass is reduced to exactly three and one-third ounces, or two-thirds of the original weight. On cooling it is an amber-coloured, vitreous mass, which is very friable and easily broken when sufficiently evaporated. It is readily soluble in glycerine, but much less so in water. It is used dissolved in glycerine—the treatment commenced with a fifty per cent. solution, and the strength gradually reduced as the discharge diminishes. The treatment is largely entrusted to the patients, they being seen but twice or three times a week, when the meatus and tympanic cavity are thoroughly freed from all secretions by means of syringing with a warm solution of boracic acid, and Valsalva inflations, or the use of an Eustachian catheter. The meatus is half filled with the boroglyceride (warmed), and the air forced through it by Valsalva inflations or the catheter. The tragus is also pushed backwards and inwards, so as to force the medicament into the middle ear. The boroglyceride is kept in position by means of a plug of absorbent cotton, or borated cotton soaked in vaseline. The patient repeats the process as well as he can, night and morning, at home. By this treatment it is claimed that the patients can be discharged cured in less than half the time required by the usual methods.

ALL PATHS LEAD TO THE GRAVE.—Such is the cynic's criticism of the allopath, the hydropath and the homœopath.—*Gaillard's.*

"SMALL FEVERS thankfully received," is a motto suggested to a young physician by Dr. Holmes.—*Medical Record.*

Hospital Notes.

TORONTO GENERAL HOSPITAL.

COMPOUND COMINUTED MULTIPLE FRACTURE OF THE LEG.

Under the care of Dr. James Thorburn.

Kindly reported by Dr. H. S. Martin, of the resident staff.

John Gillies, aged 25, unmarried, railway brakesman. Admitted to the hospital May 28th, 1884.

While shunting cars his leg was caught between the moving car and the platform, while his body was unable to move. His leg was subjected to a rolling crushing pressure.

The patient has always been very healthy. No history of hereditary disease. Five years ago he had a compound fracture of the femur of the same leg, with extensive laceration of the soft parts. He was treated at his own house by Dr. Thorburn, and made a good recovery with only a quarter of an inch of shortening.

When admitted to the hospital the tibia was found to be fractured about the junction of the lower and middle thirds, a fragment of the crest of this bone being crushed inwards, while the fibula was transversely fractured about an inch lower down. A lacerated flesh-wound, large enough to admit the point of the little finger, opened over the situation of the fracture on the inner side of the tibia, with a smaller opening three-fourths of an inch behind and below. The blood oozed freely from these openings, and the patient was considerably reduced by the hemorrhage. Irregular spasmodic muscular contractions rendered it difficult to adjust the fragments and arrest the bleeding. Considerable caution was required to prevent the angle of the lower fragment of the tibia from being forced through the superincumbent soft parts. The inner side of the foot and ankle were distended with blood.

Treatment.—After getting the hemorrhage under control by means of pressure and hot carbolized water, the openings were sealed by applying lint saturated in tr. benzoin co. The foot of the bed was elevated, and the limb placed in a fracture-box, slight extension being made by fixing the foot to the foot-board with a roller bandage. In two hours the bleeding

commenced again and could only be checked by means of a firm compress. No more bleeding occurred, but considerable infiltration followed. During the first week the sponge compress which had been applied over four folds of antiseptic gauze was removed only twice. The compress was kept damp by constantly pouring on carbolized lotion (1 in 20).

June 20th.—Swelling almost disappeared. The fracture-box was removed and mill-board moulded to the foot and leg, including the lower third of the thigh.

After this had been on for about a week it was replaced by a firm plaster-of-paris splint, applied after the method recommended by Dr. Little, of New York, for fracture of the patella, with this difference that it was made to extend over the foot. This splint allows examination of the crest of the tibia and anterior fourth of the leg, without interfering with the fastenings. The patient was now allowed to go about on crutches. Five weeks later the plaster-of-paris was removed and a light starch bandage applied, which was removed on the 4th of August. The patient now moved about on one crutch and a cane, the leg being almost strong enough to support his weight. The result is most satisfactory; there is but half an inch of shortening, a quarter of an inch resulting from the former fracture and the balance from the more recent break.

Book Notices.

Atti della Società Toscana di Scienze Naturali.

Fifth Annual Report of the State Board of Health of Illinois. By JOHN H. RANCH, M.D.

Gunshot wounds of the small intestines. By CHARLES T. PARKES, M.D., Chicago. Published by Cowdrey, Clark, & Co.

Laws of Michigan relating to the Public Health; Restriction and Prevention of Scarlet Fever and Diphtheria; and the Eleventh Annual Report of the Secretary of the Michigan State Board of Health.

The Inaugural Addresses delivered at the opening of the Law School in connection with Dalhousie University, Halifax. By the HON. A. G. ARCHIBALD, C.M.G., Q.C., LL.B., and R. C. WELDON, A.M., Ph.D.

The October number of the *Popular Science Monthly* has a list of contents sufficient to satisfy the most exacting critic. The productions most interesting to the profession are:—The Inaugural Address of the President of the British Association for the Advancement of Science; The significance of Human Anomalies; Physiological Aspect of Mesmerism; The Cholera Germ, and the Chemistry of Cooking.

The September number of "*Electra*" contains several selections worthy of mention. "Recollections of the 'Old Quarters'" is composed of interesting character sketches, giving a very correct idea of the superstition and eccentricities of the colored race. "Home Sunlight" gives some very sensible and sound advice on politeness. Historical, with miscellaneous sketches, and the usual amount of poetry, complete the number.

Messrs. Janson, McCleary, & Co., Chicago, will issue early in October a new work on the "*Principles and Practice of Medicine,*" by Dr. N. S. DAVIS.

The work is an embodiment of the observations, thoughts, and experiences of the author during nearly fifty years of active medical practice. The matter is presented in the form of lectures, delivered by him during his many years of teaching.

Malaria and Malarial Diseases. By GEORGE M. STERNBERG, M.D., F.R.M.S., Major and Surgeon, U. S. Army, etc., etc. William Wood & Co., New York, publishers.

Dr. Sternberg has been recognized for some time as an authority on this subject, and the character of this book is what might be expected from him. He first explains the nature of malaria, its effect, and the conditions governing its dissemination.

In the second part he describes malarial diseases, including the different types, and closes with a very interesting chapter on Hæmorrhagic Malarial Fever. It is a very excellent work, and will be particularly interesting and instructive to those living in malarial districts.

Personal.

Dr. C. W. Belton has been appointed Resident Physician to the London General Hospital.

At the Tait Dinner, in Hamilton, one of the toasts proposed was the memory of Dr. Hodder, the first ovariotomist in Canada.

Dr. Sullivan, of Kingston, has been appointed an examiner under the Civil Service Acts of 1882 and 1883.

Miss Beatty, M.D., of Kingston, who graduated from Queen's College, has gone to labour at Indore, in connection with Presbyterian Church missions.

The death of Dr. J. Collis Browne is announced from London. He devised the well-known preparation "chlorodyne," from which he amassed great wealth.

It is rumoured that Dr. Molson, of Montreal, will shortly remove to Philadelphia. He will be much missed by his friends in Montreal, where he has been engaged in practice for a number of years.

The profession will shortly have the opportunity of reading the book which Dr. Campbell, of Seaforth, is bringing out. "The Land of Burns, and other Pen and Ink Portraits," will be issued in five or six weeks. The doctor is an enthusiastic Scotchman, and a graceful writer.

Mr. Lawson Tait reached Toronto September 6th, and was the guest of Dr. W. T. Aikins. On the evening of the 6th Mrs. Aikins gave a *reception* in honour of Mr. and Mrs. Tait, at which a large proportion of the Toronto physicians and their wives had the pleasure of meeting them.

The members of the Hamilton Medical Society entertained Mr. Tait at a dinner, Monday evening, September 8th. There were present most of the profession of Hamilton, Dr. Aikins, of Toronto, the Mayor and other leading citizens of Hamilton. The entertainment was very successful in every respect. In reply to the toast of "Our Guest," which was received with great enthusiasm, Mr. Tait gave a very happy speech, eulogizing Canada for its general prosperity, and the status of the profession in it. He expressed his gratitude for unbounded kindness towards him since he came into the country.

Miscellaneous.

"Steel, meat and wine" prepared by Sugden, Evans & Co. is meeting with great favour. The juice of fresh beef is used. The preparation is most palatable, and a capital tonic.

"Gentlemen," said the professor to his medical students in clinic, "I have often pointed out to you the remarkable tendency to consumption in those who play upon wind instruments. In this case before us we have a well marked development of lung disease, and I was not surprised to find upon questioning the patient that he was a member of a German brass band. Now, sir," continned the professor addressing the consumptive, "will you please tell the gentlemen what instrument you play on?" "I blays der drum," replied the sick man.—*Med. and Surg. Rep.*

Suicide of the Late Dr. J. J. Woodward.—It is known that the late Surgeon Woodward, U.S.A., was insane at the time of his death, and confined in a private asylum. There seems to be little doubt now that the unfortunate man met his death by his own hands. An account states that he had been under care for about four months, but at no time was violent or in any way troublesome. He generally perferred to be let alone, and evinced a delicacy in having any intrusion upon his privacy. Through of a strong and healthy physique, he imagined himself of a delicate constitution. He was as regular as clockwork in his habits, and among the best patients in the home. On Sunday morning he was passed on the stairway by one of the lady attendants, who saw him on the edge of the porch roof. A few minutes later, before anything could be done to rescue him, he threw himself off the roof backward, falling on the steps below, receiving injuries from which he died on the afternoon of the same day.—*N. Y. Record.*

It is not safe to practise without a diploma in Colorado. In a small town near Denver, Eli Madlong, practising as a physician, but without any diploma, prescribed some medicine for a patient who died, presumably from the effects of the prescription; whereupon, says the *Chicago Medical Review*, the indignant friends of the deceased hanged the venturesome practitioner by the neck until he was as dead as his unfortunate patient.