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# CANADA

## MEDICAL & SURGICAL JOURNAL

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### NOTES ON DISEASES AMONG THE INDIANS FRE- QUENTING YORK FACTORY, HUDSON'S BAY.

By PERCY W. MATHEWS, M.R.C.S.E., M.R.C.P. (LONDON),  
Medical Officer to the Hudson's Bay Company.

*(Read before the Medico-Chirurgical Society of Montreal, Feb. 1885.)*

In treating of diseases in the district under consideration, it is impossible, even were it desirable, within the limits of this paper to touch upon other than those which are most common, and to refer to any modifying or exaggerating influences which endemic circumstances may seem to have over them. Therefore, for the purpose of ensuring what I deemed to be a fair average, I have taken account of the last twenty years (1864-84), and thereby ascertained the death-rate to be 12 per 1,000 of the Indian population, which somewhat exceeds 500; but it is necessary to explain that this refers to registered deaths at York settlement only, as it is for no longer a period than the space of six weeks or possibly two months that this population is gathered in and around York; though it must be recognized that the period in question may be considered the most unhealthy of the whole year—June, July and August. Hence, during some ten months, the population is reduced possibly by some 300 souls; although, when it is practicable, sick Indians are brought in to the local hospital at any time of the year. Still, if all deaths in connection with this population were taken into consideration, the ratio per thousand, as far as I am able to ascertain, would

be some two or three in excess of that already stated. Before dismissing the subject of population, it may possibly be interesting to note that the birth-rate for the last 20 years is 3.2 per cent. in excess of the death rate, or 44 per thousand compared with 12 per thousand.

I will now proceed to classify those diseases which are most fatal. Bronchitis and pneumonia come first, representing 35 per cent. in the death rate. Next, tubercular disease, including scrofula, tabes mesenterica and pulmonary phthisis, 30 per cent. Heart disease, including rheumatism, 10 per cent. Infantile convulsions, 10 per cent.; and various causes, 15 per cent. Before I refer to the first mentioned (bronchitis), it is, I think, desirable to describe briefly the position and surroundings of York, as indicating possible climatic influence. York is situated on the west bank, five miles from the mouth of the Hayes, and some six miles to the east of the Nelson river, and is surrounded on the north-west and south by maskeg or swamp, with small tamarac growth here and there, and is fully exposed to gales from all quarters, but more particularly the east—a raw, biting wind sweeping over Hudson's Bay. In the month of April, when the snow begins to melt and stagnant pools to form, an epidemic of catarrh, influenza, bronchitis, or, certainly, some malarial cachexia will very shortly make itself evident, giving rise to dyspepsia, diarrhoea or dysentery. When we consider the organisms of disease that must evolve from the surrounding swamp by decomposition of both animal and vegetable life, it cannot be difficult to realise at least some poisonous principle at work. And, again, later on, when the sun attains almost tropical power, some epidemic of a very serious nature is certain to develop. I may bear this out by only instancing the month of August of 1883. An epidemic of capillary, vesicular and acute bronchitis attacked upwards of 200 people, including one case of acute phthisis and four of vesicular emphysema; 16 deaths ensued in less than one month—acute phthisis, 1; emphysema, 1; bronchitis, 14. My small hospital could only admit ten patients; therefore, the majority of these poor Indians were treated in their wigwams, pitched here and there on rising ground, the

surrounding vegetation of itself necessitating a damp and heated couch, to say nothing of the scanty protection afforded by the nature of the tent itself against the heavy falls of rain. The only distinctive treatment I adopt is the expressed oil from the liver of the Myri (*Lota maculosa*), a fresh-water ling abundant in the rivers and lakes of the Hudson's Bay territories.

*Pneumonia*.—In connection with pneumonia, I would also say a few words on epidemic disease at this place. I landed at York in the summer of 1878, and found awaiting me 17 cases of pneumonia in their several different stages. (There had been others which were then convalescent.) This may instance the epidemic form that disease assumes in a small isolated place like York. When the surroundings, mode of living, and nature of food are very much the same, individual susceptibilities seem to be done away with, and disease then takes a generally aggressive character.

To bear out the effect of isolation regarding nervous development, even axe wounds are popularly said to be infectious. When one does occur, it is followed by many—the whole mind being absorbed in the contemplating of the “coming wound,” and the nervousness induced thereby often consummates the catastrophe.

*Phthisis*.—Coming next to pulmonary phthisis, it is a matter of some surprise that phthisis is not more prevalent among the Indians, when one takes into consideration that nothing is wanting to exaggerate their strumous habit or develop it more generally as complicated with scrofula. Within the last six years, I have had three cases only—one acute phthisis and two tubercular phthisis. The first case was that of a woman aged 40, who lingered on in the bright and bracing winter, with perforation and painful dyspnoea, till the coming spring developed an unmanageable diarrhoea and death ensued. The second form, acute phthisis being rare, I will briefly touch upon the outlines of the case referred to. A man aged 50, whose history was phthisical, was admitted to the hospital for scrofulous enlargement of the knee joint. Symptoms of phthisis suddenly set in, profuse sweating and diarrhoea markedly; tubercle formed in the lower lobes of both lungs, and rapidly spreading upwards, death from exhaustion took place in five weeks. The last case is that

of a woman aged 38, who has been suffering from tubercular phthisis for upwards of seven years; at times she has severe attacks of hæmoptysis, taxing my utmost efforts to check; on one occasion common salt was used, almost as a last resource, and succeeded; the sputa contained most of the elements of phthisical sputa. She then became pregnant, and as she advanced in pregnancy she improved in health; the cavities broke down and healed, and now, excepting an occasional attack of hæmoptysis, she is comparatively well and able to get about.

Before concluding my remarks on tubercle, I may mention that several cases of death have taken place from tubercular meningitis and tabes mesenterica.

*Scrofula* will now be referred to briefly. Whatever position is tenable regarding its somewhat debated cause, assuredly York can boast (save the mark!) of both hereditary influence and every other excitant, only excepting syphilis. Diseased nutrition in infancy; food insufficient in quantity, innutritious in quality, and badly cooked; want of cleanliness, intermarriage, prolonged lactation (extending to 3, 4 and 5 years I have noted, and even longer is reported), nasty living, and, in short, every adjunct to the perpetuating of this terrible bane to humanity. The more marked characteristics in the scrofulous Indian babe are: eyes somewhat projecting, oblique, edges of eyelids everted, lower nearly straight, with considerable arch of the upper lid, and colorless; development of *alæ nasi*; early cutting of teeth and soon becoming carious; later on, forms of strumous dyspepsia show themselves, more or less modified; purulent discharge from the ear and nose; vesicular eruption of the head; enlargement of the glands of the neck and tonsils, and again of the *axillæ*; and *aphthæ*, very common. The raising of the temperature in *scrofula*, with tubercle, can be thoroughly borne out at York. The Indian child, if weaned early, which is exceptional, is fed on uncooked oatmeal and often grease, and very soon partakes of its parents' food. *Scrofula*, without tubercle, so far as it refers to glandular swellings, more or less ulcerations and indolent abscesses, is far from uncommon, and several cases of strumous disease of joints have also come under observation during

my practice at York. I have also had several cases of posterior spinal curvature, and one rare case of anterior curvature. Scrofulous ulcers are also met with, and are most troublesome to treat, the main difficulty being to secure cleanliness in dressing. I necessarily place great reliance on constitutional treatment and wholesome, regular food. As to drugs, the salts of iron and potash are very éfficacious, and carbolic acid and permanganate of potash very excellent as lotions. I may mention here that I have met with decided success by using the syrup of the iodide of iron with young children.

*Heart disease* has to be referred to next, but I consider that it could be more correctly mentioned as a complication of rheumatism, inasmuch as I have only met with two cases of organic disease, both mitral; but functional, cardiac derangement is very common, and may probably be attributed to many causes. In particular, dyspepsia and excessive and continuous walking and running. Applications are continually being made to me for “heart medicine,” which generally consists of some simple ethereal mixture. As one cannot be in a position to remove the exciting cause, the efficacy of the treatment as regards the allaying of the symptoms is somewhat difficult.

*Old age*, although a cause of death, and can hardly be classed as a disease, is seldom attained to any great degree among the Indians. Within the last twenty years there are four instances, respectively estimated at 80, 85, 90 and 100; the latter I should question. When we take into consideration the life the Indian leads, the bitter winter and scanty clothing, the continuous exercise and precarious food supply, it cannot be wondered at that longevity is not often attained. But when the history of those around a settlement is examined, the wonder is still greater that even exceptional age should be reached. Adopting the habits of the white man, without his precautions, and drinking to excess of tea, whenever they can, in place of the spirituous liquors which they formerly indulged in whenever they could get them, taking to living in houses, instead of following their old wandering, open-air life, and thus being tied to one place, a lack of food-supply follows, and a condition of semi-starvation is sustained for

years, only varied by a surfeit of venison, white bear's meat, or any food that happens to be temporarily plentiful. Some form of disease sets in, and when spring comes, their surroundings are permeated with emanations of offensive matter, for which, reeking putridity is not too exaggerated a term; and lying in their close, hot houses, their scurvy breath rivals the offensiveness of the immediate outside air. Can it then be wondered at that comparatively early dissolution is the result, and that the bright, beautiful winter, with its cumulative suspended poison, is but a temporary negation of the disease-laden swamp of summer.

*Cholera.*—During the month of May, 1884, I had one isolated case of malignant cholera, originating in the patient (a child) drinking stagnant water or drainage (for there are no sewers here) around its dwelling, the symptoms setting in suddenly—continuous diarrhoea (rice-water evacuations) and vomiting, cramps, coldness and lividity of body, the marked facies cholericita, and death within 15 hours. For treatment, I tried calomel and jalap, iced milk, warm bath, hot bottle to extremities, sinapisms to abdominal walls, and all sanitary measures that were practicable with such surroundings and with constitutions so vitiated. In the treatment of a disease like this, when its first principles are undecided, and the subject of much controversy among the highest authorities of the past and present, a disease at whose call the whole pharmacopœia has at one time or another been tried, and which has incontestably been acknowledged to have no antidote, chance recoveries being accredited to chance “specifics,” can it be wondered at that the practitioner soon becomes involved in a maze of perplexity and bewilderment? I would say, in all humanity, that if our endeavors, while awaiting the result of the philanthropic Pasteur's investigations, were directed to the destruction of the agencies, where practicable, through which the dread disease operates, instead of essaying the extravagant treatment advocated by many authorities, that obnoxious word, *empiricism*, would not suggest itself. The blind man at Laporta employed himself in mixing colors for his brother painters. It was acknowledged that he often made mistakes, yet he was much encouraged and esteemed by his brethren of the Grand Academy.

At the time of writing, I have several cases of malarial dysentery. I maintain somewhat the same treatment as referred to in cholera, and hitherto with success. Meningitis supervening in one case, has been relieved by the bromide of potassium. And, lastly, I would say that with such *materies morbi* around us, we can but arrogate an especial providence to ourselves, which permits one of us to escape. I will now touch upon various diseases endemic to this district.

*Dyspepsia* is the first that must come under notice, including, as it does in local phraseology, every internal organ from the gullet downwards. Among some of the causes of this disease, which are to a certain extent characteristic of the Indian mode of life, I may note improper and uncooked food, largely diluted while masticating, "taking to the track" immediately after an excessive meal, and abuse of tea. I cannot but think that the concentrated and long infused potions of tea taken at short intervals are a fruitful source of dyspepsia, the tannin probably proving injurious to the stomach and the theine to the nervous system; and last, and certainly not least, but still natural to the Indian, surfeiting himself whenever opportunity occurs. I once heard it remarked by an Orkeyman, "that they not only filled their stomachs, but every part of them," the Orcadian intellect only realizing a vacuity in regard to the animal economy. In reference to dyspepsia, it is as well to allude to diseases of the teeth as often dependent on gastric derangement, acting as they do such an important part in the digestive system. It may possibly be interesting to make a comparison between the "good old times" and the present day in connection with the teeth of the Indian. I have only had an opportunity of examining six skulls of ancient Indians during my residence here. All of them are sound in every respect. One of them, which is before me as I write, and which, judging by the worn condition of the molars, belonged to an old Indian, is perfect; not a trace of caries; teeth regular and well formed. Six cases are, I grant, hardly sufficient to be typical, but they show a very marked contrast to the teeth of the present day. White, indeed, the latter are, which may be partially attributed to their habit of chewing

“pitch” (gum of the *Abies balsamar*), but sound they certainly are not. In this respect, Eastern and Western nations differ in their views of æstheticism and conservatism, for the betel-nut and “pitch” have somewhat marked opposite properties. I may state that I have extracted a very considerable number of teeth here at York, though such assertion is slightly in contradiction to that appearing in a Saskatchewan paper of February, 1884, “that the first Indian tooth in the country had been that day drawn.” In all deference, I must maintain that the Indians suffer a great deal from toothache, which I think to be in a great measure due to dyspepsia, as has been borne out by treatment. Excessive smoking cannot be laid to their charge. The dyspeptic symptoms are generally characterized by anorexia, foul or furred tongue, flatulency, heartburn, palpitation, sense of fulness in the epigastrium, and invariably by constipation. The treatment is simple. The compound rhubarb powder, followed by some chalybeate tonic or mineral acid, generally answers well; diatetic treatment being impossible with a people who think drugs can do everything. In connection with this subject, I may mention that both aphthous and ulcerative stomatitis are distinctly epidemic every year. I consider the chlorate of potash a remedy that can be almost deemed a specific.

*Rheumatism.*—With regard to rheumatism or “sore bones,” I cannot but think it is more common now than in olden times, from what I hear. Whether this is owing to the more enervating life and different habits of the Indian, or possibly to inferior clothing and the more extensive use of tea which now prevails, or to the settlement being more exposed than in old times to both malarial and climatic influence, owing to the cutting down of wood for many miles around, it is difficult to say; possibly it is due to all combined. Still, it is not here fatal of itself, but its complications are frequently so, involving cardiac lesions in several cases. Synovial rheumatism, with metastasis, is met with, but not commonly; and as age advances, in some few cases I have noted an arthritic form, producing enlargement at the joints and the usual constitutional febrile symptoms. The treatment is necessarily according to circumstances, both iodide

of potassium and salicin acting well ; but the Indians themselves have great faith in local treatment, probably theorizing that the rapidity of the cure will be in proportion to the strength of the "rubbing stuff."

*Epilepsy* is a disease to which the Indians are peculiarly subject, and when it is realized that four per cent. of the population are afflicted, the statement is warranted. I must note that 50 per cent. of the deaths that take place at York are of children under five years of age, and those deaths have almost, without exception, been of cases who labored under a scrofulous or epileptoid diathesis. To proceed, there were six cases of idiocy at one time (four in two families), two of epileptoid convulsions and one of epileptoid insanity. The first case of convulsions was a somewhat strange one. An Indian, aged 30, was attacked by the fit *with but little warning*. Perfect prostration ensued for about half an hour ; then violent convulsions followed by his seeming to pass into a condition of acute mania, then seizing hold of the first thing (on more than one occasion an axe), would rush off to the woods and commence felling trees right and left. This individual being a tall, powerful man, was not considered harmless, so he was somewhat expeditiously despatched to Winnipeg.

The next case of convulsions came within my own cognizance. Heavy doses of bromide of potassium (15 to 20 grs. three times within the twenty-four hours) apparently prevented a recurrence.

The next case is a remarkable one of epileptoid insanity, and the instance of recovery must excuse a somewhat lengthy account of it :—An Indian, aged 20, was sent to me as insane. He was confined to a small building, erected for a jail, two keepers having been provided, and everything removed from an inner room of the jail. I examined him, and, possibly from excitement, epileptoid convulsions set in during my first visit. In the afternoon of the same day I again visited him, and having had some experience with lunatics in the Channel Islands Lunatic Asylum, I did not anticipate much trouble, as he was a slightly built man ; but before the door was bolted he had torn down a shelf and leaped at me. I avoided the shelf, as it was a big bit of wood,

and tripped him. I then realized that moral suasion would not work, so there and then, though with difficulty, I straight-waist-coated and manacled him. After that day he never attempted to attack me, but for the first two months fits were of frequent, daily occurrence, sometimes several in the day, during all which time he was utterly insane. As to treatment, the tincture of *Cannabis Indicus*, with bromide of potassium, seemed to modify and in some measure control the fits; and regular, wholesome food, daily exercise and cleanliness, together with firm, consistent kindness, contributed largely to his physical improvement. Latterly he was taking 15 grs. of bromide of potassium daily, during which period the fits and general excitement decreased; then he began to appear pleased at seeing a visitor, and gradually the raving gave way to something approaching intelligible utterance. This went on until the eighth month, when sometimes he talked sensibly, but again at times wildly. At the beginning of the ninth month he had expressed a wish "to go to the doctor's house," so he was brought, and the first thing he "felt it right to tell me was that his viens were returned to him," and he was anxious to work. Expressing my pleasure, but with some close watching, I allowed him to try, but he soon gave up, saying that "his bones were all broken." However, with continued care and treatment, he became what he is now—a rational, good, hard-working, and, further, what is strange in an Indian, a thoroughly grateful man. I am fully aware that epilepsy with insanity is stated to be incurable. I can only assert that the foregoing is a faithful *resumé* of the case, and that epilepsy with insanity in this case was and is cured. This is a practical argument, as the man has been working for two years without a relapse.

Before dismissing epileptic and epileptoid disease as endemic at York, I would lay greater stress on the term *endemic* than perhaps its casual employment indicates, basing the *rationale* of my assertions not only on hereditary influence, consanguineous marriages, excessive sexual intercourse, and other recognized causes generally, but to some considerable extent upon climatic, and thereby miasmatic, influence. For the sake of exemplification, it is necessary to be somewhat discursive. In the first

instance, lactic acid was and is rightly presumed to be the cause of rheumatism, because its toxological effect on the living animal produces one of the most striking complications of rheumatism—endocarditis; but it is equally allowed that climate and surroundings generate the same poison: Again, with endemic cretinism, the more generally stated cause is endemic brochocele and consanguineous marriages, though miasmatic poisoning is equally allowed. Instances could be greatly multiplied, but hardly so within the scope of unpretending notes. Therefore, taking into consideration that some swamps, marshes and jungles produce cholera, some yellow fever, some ague, in malarious districts, the question seems to me to devolve itself into one only of suitable conditions of moisture and temperature. It is, I think, feasible to admit that epilepsy, allowed as it is to result from the poison of rheumatism, scarlet fever, diphtheria, &c., may result from a poisonous principle that produces these diseases. Then may not the brain equally, directly or indirectly, be influenced by a like poison of a miasmatic nature. In short, if so many diseases can be traced to miasmatic influence, as a direct exciting cause, may it not be recognized as an exciting or exaggerating influence in epilepsy, since epilepsy is itself attributed to such varied causes, themselves induced by malarious poisons.

*Fevers.*—It may seem somewhat strange, yet it is most fortunate, that of late years, beyond symptomatic fevers, this class of disease is almost unknown at York; one death only from measles being recorded. Many years ago typhus fever “was landed” by a ship and carried off many of the natives; and again, 1862-3, thirty-five deaths took place from scarlet fever, introduced originally from Manitoba.

*Skin Diseases.*—It may be noted of diseases of the skin, that they have, without exception, a scrofulous diathesis. Enveloped as the Indians are with the dirt of ages, skin diseases seem hardly to have a fair chance of satisfactorily developing; or such immunity may possibly be attributable to the antiseptic qualities of mother-earth. Were an isolated portion of cuticle to be examined at any time, the enterprising histologist must needs relegate its owner to the order of the pachyderms, and

the condition of their feet is certainly suggestive of that terrible form of leprosy—*elephantiasis*. Not long since an old Indian was asked when he last washed. "Ah! that was many years ago, when I was young and foolish," was the still regretful reply. I am not aware of distinctive skin diseases among the Indians, with the exception of, perhaps, one or two, which I will touch upon, together with the more marked of those that are met with.

A few cases of *Erythema* and *Urticaria* are noticed. *Herpes labialis* is very common, it being induced by the action of the sun and wind, and exposure generally. Vaseline gives great relief. I have not met with a case of *shingles*.

*Strophulus*.—The children are particularly subject to a very aggravated form of this generally considered simple "tooth rash," but at York it assumes a distinctive character of *Lichen Scrofulosum*, and is extremely hard to treat.

The only form of *eczema* I have noticed among the Indians is *Eczema Marginatum*, a seemingly modified form of *Tinea circinata*, closely allied to the Burmese ringworm, occurring about the fork of the legs, near the junction of the thigh and scrotum, and is caused by dirt, heat, friction and moisture. It yields readily to treatment with a solution of bichloride of mercury (2 grs. to the ounce of fluid), or a strong solution of hypsulphite of soda (5vi ad 3vi of fluid), washing well with soap and water previously.

*Mal de Raquet*.—"Snow-shoe sickness" is necessarily commonly met with at York. In some cases, and where it is necessary "to carry on" or continue the journey, I have applied the moxa.

*Snow-blindness*.—The upward reflection from the snow of the strong actinic sunlight of spring soon sets up an inflammatory action of the optic nerve. The little intolerance of light and the sense of "sand in the eyes" is most painful. Cooling sedative lotions, or warm decoction of poppy capsules, and perfect protection for the eyes is the general treatment.

*Scurvy* is frequently met with among those of the Indians who live in houses. In fact, in winter, I may say that almost every disease met with is complicated with the scorbutic taint.

Undoubtedly the sameness of diet, use of salt meats, lack of fresh, exposure to impure air and want of sufficient light exert a strong predisposing influence. In the more serious cases, the salts of potash and iron are most efficacious. As anti-scorbutics for distinctive treatment, the cranberry (*Vaccinium oxycoccos*), infusion of the cones of the coniferæ generally, Labrador tea (*Ledum latifolium*), the mountain tea, and the dried leaves of the beautiful little partridge berry (*Mitchella repens*), are employed. The latter is used as a beverage when other tea fails.

*Obstetrics.*—As may well be imagined, among a people but little removed from the savage, obstetrical complication is of somewhat rare occurrence. Within the last 20 years, and probably for many years previous, but three deaths have taken place. One a case of twin delivery (by-the-by, extremely rare among the Indians), the other two (the first on record) being puerperal mania and insanity. Putting aside the fact of this disease being highly contagious in an isolated place like York, it is *highly sympathetically infectious*. Impressionable, superstitious, and easily influenced as these Indians are, had circumstances allowed (notwithstanding my precautions as regards direct contagion), I am convinced that there would have been several cases. *En passant*, one nurse, who was past child-bearing, was perfectly fascinated, as if by mesmeric influence, and had to be removed and kept away by force, and was completely demented for over a week, during which she had her first epileptic seizure. Regarding the first case, some two or three months before labor set in, symptoms of mental excitement, together with strange forebodings, made themselves evident. The cause of the subsequent fever and insanity was, I consider, primarily, a retention of a portion of the placenta, and, secondarily, the morbid condition she had worked herself into regarding the irregularities of her past life. The usual treatment was adopted with marked success, but, becoming partially convalescent, she contracted a chill, which ended in double pneumonia and death. In the second case, mania developed the third day after delivery with the usual symptoms of agitation, excitement, violent delirium and raving, continuing for five weeks, when she

rallied, became perfectly sensible, and was about to be discharged from the hospital when she died suddenly of syncope. This case, though occurring a year or so after the other, was undoubtedly sympathetically influenced by it, inasmuch as it was the first that has ever been noted at York, and like impressions were typical of both cases.

Passing on to labor cases, I have had but few with anything like difficulty,—only two or three cases of post-partum hæmorrhage, one “hour-glass contraction,” and one case of forceps; but year by year the Indians are becoming more dependent on the white man. A labor at the settlement can hardly take place now without the doctor being sent for. This possibly may be owing to the fact that his obstetrical sympathy oft-times has to assume the somewhat practical shape of tea and sugar, or chocolate, the latter “drug” being highly esteemed. Inconsistently apeing some of the habits of the white people, as these poor Indian “ladies” do, uterine mischief is caused by the utter disregard of necessary rest after labor. I have known several instances of fetching water from some distance and bringing it up a steep bank, and cutting wood, the same day (although I must allow they conscientiously take to their bed on their return), the result naturally being severe uterine complications and constitutional irregularities. To this cause, I am sure, may in a great measure be attributed the long intervals between pregnancy and the small families generally met with. The “good old days” have passed away. The degenerate Indian “wife” cannot now retire to the small brushy camp beside the track, and overtake the lordly creature who has not abated one jot of his snow-shoe stride. I have heard of somewhat analagous cases in England among the gipsies, but there is nothing of the “glen and forest green” in the case of the poor Indian woman. Hardy and inured to hardship she well may be; beast of burden. God help her.

*Syphilis*.—Although I have excepted the syphilitic taint in these notes, as one of the predisposing causes of disease generally among the York Indians, it may be interesting to notice that what is said to be “a bastard form of syphilis” exists, and appears to

be indigenous not far from the district, and among Indians with whom they have casual communication. The disease is locally known as the "Nelson River Complaint," and among the Indians "Muchetas-pinawin"—literally, bad disease. It appears, from description, to be contracted or contractable by the ordinary modes in which syphilis is contracted, but its appearance and results differ widely. Although evidently a primary disease, it is usually seen in a form similar to the so-called tertiary form of syphilis, and exhibits itself in patches of scab raised above the skin, more or less extensive in various parts of the body. The scalp is sometimes covered with it, also the scrotum, prepuce, genitals, lips, elbows, and large joints. In appearance, and when fully developed, it is an elevated greenish-yellow incrustated scab. When this is removed by friction or otherwise, a raw surface is exposed, which, however, granulates and heals, to break out in a contiguous place, unless again exposed to the issue of contagious sores. The lining membrane of the mouth is also attacked, and a warty excrescence of greater or less extent grows there. My informant has seen the whole of the tongue covered with the growth, and at the same time, in the same individual, the scalp matted with the incrustated scab. On the same man, also, old cuts opened and discharged a thin ichorous fluid. My informant heard that when the nose is attacked, the cartilaginous substance is not unfrequently destroyed, as in syphilis. Chancre is said to exist, but no history of bubo is traceable, as it was represented as being always the result of infected coition; although I have since learnt that other means of infection must not be precluded, as the interchange of pipes, and using the same eating utensils, etc. The name known for this complaint in the settlement of olden times was *Sivvens*, which certainly points to a species of *Frambæsia*, the French nomenclature now taking the place of the old Celtic *sisvin*, and so corrupted to *sivvens*, and the Scotch *sibbens*. This, however, is not generally known to be endemic to North America. A medical authority of the settlement told my informant that he believed it to be a form of syphilis. My informant himself saw several cases at Norway House, on Lake Winnipeg, and found it yielded readily

to mercury internally, and externally in the form of black wash. Iodide of potassium was also used. The effects of the disease itself were not so fearful as those of ordinary syphilis, and the mouth excrescence was amenable to nitrate of silver, applied in the solid form. Locally it goes by the name of the Nelson River complaint, and was very prevalent there at one time. Only in generations far back, say over 100 years, could these Indians possibly have had exposure to syphilitic taint, as they were not in contact with either the Red River settlement or York, and the true disease was stated not to exist in those days in either of the two places. Syphilis, however, is said to have been a long time in the McKenzie River district, whither it was conveyed by the various Arctic expeditions, but the Indians of that region had no contact with those of the Nelson River, and, as far as I could learn, the symptoms of the McKenzie River disorder were those of true syphilis. Cases are now and again being heard of from Norway House, which, I fear, cannot be associated with pre-historic times, but have, from all accounts, the usual first-born energy of unadulterated syphilis, and this disease is conscientiously developed in its several forms. At all events, I have given it the benefit of any existing doubt, and treated it accordingly.

It may not be uninteresting to trace briefly the etiology of Sivvens, together with one or two somewhat analogous diseases, associating them (as I think they ought to be associated) with unrecognized forms of syphilis, although I am fully aware that I am now touching upon very debateable ground. In the first place, towards the end of the 17th century, Sivvens or Sibbens was very prevalent in the north of Scotland, and was supposed to have been introduced by Charles the Second's troops in their campaigns. Bearing upon this, I may add that for the last 200 years the European employés of the Hudson's Bay Company are year by year engaged from the north of Scotland. Again, in the 18th century, it became very prevalent in the north of Scotland, and, it may be noticed, it became equally prevalent among the Nelson River Indians about the same time. This may be only a coincidence, but it is a suggestive one. Again,

Mal Anglais, Mal de la Baie de St. Paul, invaded the upper part of Canada about the same time, and several tribes of Indians, hitherto strangers to the disease, were rapidly and widely affected by it. That syphilis, like small-pox or measles, spreads rapidly when introduced into a new district, is allowed by many authorities, and it equally assumes an endemic character when localized in secluded districts, and, spreading among individuals of similar habits, acquires an especial character varying from ordinary syphilis. Possibly it may become confounded with other diseases, like the "Radezge" of Norway, which, if I remember rightly, consists of syphilis and leprosy; equally as the "Nelson River complaint" may consist of syphilis and scrofula. In short, were the matter thoroughly entered into, I do not think it would be very difficult to prove, notwithstanding many authorities to the contrary, that the Yaws of Jamaica, the Sibbens of Scotland, the Mal Anglais of St. Paul's Bay, the Nelson River Complaint, and many others, are simply various endemic and modified forms of syphilis.

Thinking that some meteorological data may be interesting, and also perhaps instructive, as bearing on climatic influence in epidemic disease, I am enabled, through the courtesy of Mr. William Wood, our very zealous meteorologist of York, to give the following:—

	MONTHLY MEAN TEMPERATURE.	MONTHLY MEAN BAROMETER.
1883—January.....	-25.34 F.	29.975
February.....	-19.78	30.073
March.....	-13.90	31.55
April.....	*1.92	31.78
May.....	*36.53	29.969
June.....	*53.19	29.968
July.....	*57.43	29.954
August.....	*55.46	29.978
September.....	*43.42	29.920
October.....	*31.72	30.067
November.....	-0.25	30.010
December.....	-22.27	29.999

	MONTHLY MEAN OF SEASONS.	BAROMETRICAL.
Winter —Oct., Nov., Dec., Jan., Feb., March, April.....		30.322
Spring —May.....		29.969
Summer—June, July, August.....		29.966
Autumn—September.....		29.920

		RAINFALL.			
	<i>inches.</i>		<i>inches.</i>	<i>inches.</i>	
May.....	0.30	July.....	6.03	September.....	3.63
June.....	3.02	August.....	6.35	October.....	0.62

## RANGE OF TEMPERATURE.

July 5th, 1883.....	99° F.
January 3rd and 4th, 1884.....	52° = 151° F.

## MILEAGE OF WIND.

January.....	9,720 miles.	
February.....	9,940 "	
March.....	9,530 "	
April.....	8,000 "	
May.....	8,380 "	Prevailing Wind:
June.....	7,910 "	North-West.
July.....	7,510 "	
August.....	8,730 "	
September.....	8,060 "	
October.....	8,340 "	
November.....	9,740 "	
December.....	9,650 "	
Total runs.....		Monthly average:
104,510 miles.		8,709 miles.

## ON SUBSTITUTES FOR DIGITALIS.

*(Continued.)*

By JAMES STEWART, M.D.,

Professor of Materia Medica and Therapeutics, McGill University; Physician to the Montreal Dispensary, and Director of the University Dispensary for Diseases of the Nervous System.

## II.—CONVALLARIA MAJALIS.

During the few years that have elapsed since the lily of the valley has been recommended as a substitute for digitalis, extensive trials have been made with it, especially in the French and German clinics. There is far from being anything like a general consensus of opinion as to its capabilities, when used for the above purpose. Some consider it to be equal, if not superior, to digitalis, while others say that it is entirely untrustworthy.

In the present article an attempt will be made to present the pharmacology and therapeutics of this agent, according to the more recent researches into its actions and uses.

It was first introduced to the notice of the profession about three years ago by Botkin, the celebrated Russian physician.

It is, however, a very old remedy, being mentioned even by Dioscorides, who considered it very beneficial in palpitations; "*it fortifies the heart,*" he says.

Botkin was led to employ it owing to its popularity as an "anti-dropsical" remedy among the Russian peasantry.

He alleges that he has always found it a reliable cardiac tonic, even in some cases surpassing digitalis. German Sée considers that in many cases it is the equal, and in a few cases the superior, of digitalis. Leyden, Lubinski, Fränkel, Stiller and others maintain, on the other hand, that in all cases it is inferior to digitalis; and in many cases, they say, it entirely fails to strengthen a weak heart.

At least, a part of this marked discrepancy of opinion is clearly due to the fact, that the various experimenters referred to employed preparations of different strengths, and made from different parts of the plant. Some used an extract (watery or alcoholic) from the flowers, while others used an infusion of the whole plant.

The strength of convallaria preparations depends much on their place of growth and the time the plant is collected. Russian plants are said to be superior, while American are inferior to all others. The flowers contain in greatest abundance the glucoside convallamarin, to which the plant owes all its medicinal properties,—at least its cardiac properties—for, in addition, there is another glucoside, which has been called convallaria, which possesses marked intestinal irritant properties, but is destitute of any cardiac tonic powers.

*Pharmacology.*—When applied to the heart of a frog, the different preparations of convallaria have a distinct tonic action. They slow and render the heart's movements more powerful. A similar action is observed in warm-blooded animals, although not so marked. Sphygmographic tracings taken from the pulse of man, after a few doses of convallaria, show that not only is the number of pulsations diminished, but the amplitude of the contractions is increased.

If administered in over-doses to either cold or warm-blooded animals, it brings the heart to a systolic arrest.

Through what agencies it slows and strengthens the heart's movements and increases the blood pressure, has not been definitely determined.

It is claimed by German Sée and other French observers that it has marked diuretic powers. That in addition to its power increasing the quantity of urine through its action on the blood pressure, it has a direct influence in stimulating the secreting structures of the kidneys. The diuretic action of convallaria resembles that of caffeine. It has no influence, it is said, in causing any considerable increase in the quantity of urine in a normal condition of the circulation. It is eliminated for the most part by the kidneys, and on heating the urine of a patient who has been taking it for a few days, a slight cloudiness is observable, due to the resin of the plant and not to albumen.

*Therapeutics.*—The only use of convallaria is as a heart tonic, in cases of failure due to organic disease. It is said to be especially operative in cases of dropsy due to mitral lesions. Its power in strengthening a failing heart is much less than that of digitalis. The latter drug, except in advanced cases of fibrofatty degeneration, if properly administered, seldom or never fails of at least partially restoring a ruptured compensation.

Convallaria, at times, acts as well as digitalis, and frequently with more promptitude, but in a considerable number of cases it is much less efficient—while it not unfrequently fails entirely in bringing about the wished for results.

If the three prominent cardiac tonics were to be arranged in the order of their power, we would have digitalis first, caffeine next, and convallaria occupying the third place. Arranged according to the promptitude of their action, caffeine would be the first on the list, convallaria second and digitalis third. Arranged according to the order of their freedom from untoward effects, caffeine would certainly hold the first place, convallaria the second and digitalis the third. A preparation made from all parts of the convallaria plant is as likely to cause gastric disturbance as digitalis, while it is much more likely to cause intestinal irritation than the latter. Preparations of the leaves and of the glucoside convallamarin are, however, seldom, if ever, fol-

lowed by any intestinal irritation. The reason that preparations of the whole plant are more apt to cause diarrhoea and vomiting, is that the root contains nearly all the convallaria,—the glucoside—whose actions are entirely those of a gastro-intestinal irritant.

The two following cases may be taken as representing the most favorable action of convallaria in organic disease of the heart. The first is reported by Falkenheim\* from the clinic of Prof. Naunyn, of Königsberg. The patient was a woman, aged forty-three. When admitted into hospital she was found to have stenosis with insufficiency of the mitral orifice. There were extensive secondary changes in the heart, together with advanced atrophic nutmeg liver. There was great effusion into the abdomen, as well as into the subcutaneous cellular tissue. The pulse was 90, and the quantity of urine in the twenty-four hours did not exceed 500 c.c. (15 oz.) Two days after the administration of an infusion of the flowers, the pulse gradually began to fall and the urine to increase in quantity. So marked was the increase of urine that the patient was passing 3000 c.cm. ten days after the commencement of the treatment. The pulse fell from 90 to 50. The patient was discharged shortly afterwards, much improved. She was, however, after a few weeks, readmitted in a very similar state to what she was when she first came under observation. The quantity of urine was no more than 500 c.cm. in the twenty-four hours, and her pulse was 90. An infusion of the convallaria leaves was again ordered, with the result that the urine in a day or two commenced to increase in quantity. This increase was gradually augmenting during the ten days that the drug was given, when it reached 2500 c.cm. in the twenty-four hours. At the time that the quantity of urine passed in the twenty-four hours had reached its highest point, the patient had also diarrhoea. The pulse fell from 90 to 60. Coupled with the increased quantity of urine and the fall in the pulse rate, there was a marked relief in all the distressing subjective symptoms which troubled her.

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\**Deutsches Archiv für Klin. Med.* Band 36, s. 84.

It should be mentioned that just before the patient was admitted the first time into the hospital, she had been tapped.

The second case\* is one reported by Dr. F. T. Roberts, of University College. It was one of mitral obstructive disease, with irregular and inefficient cardiac action; deficient secretion of urine; moderate dropsy of the legs and considerable ascites. The obvious results of the administration of the convallaria were:

1. A distinct improvement in the action of the heart, which became more regular and efficient, while the thrill and murmur became more evident.

2. A considerable and progressive increase in the quantity of urine produced.

3. Rapid diminution and ultimate disappearance of the œdema of the legs and the ascites.

In speaking of this case, Dr. Roberts says "that the compound jalap powder helped, no doubt, to get rid of the last symptoms; but the other effects noted were, unquestionably, due to the convallaria, and the increase in the quantity of urine must have been an important factor in removing the dropsical accumulation. I have thought it worth while to report this case in support of the value of convallaria in the treatment of cardiac affections, although I do not for a moment believe that it will entirely supersede other drugs. The patient is now practically well, so far as symptoms is concerned, but the signs of mitral obstructive disease are very distinct."

*Dose and Mode of Administration.*—Judging from a few trials, the glucoside convallamarin possesses all the active cardiac properties of the plant, with none of its disadvantages. Preparations made from the plant itself are much more likely to bring about vomiting and diarrhœa. For these reasons, the convallamarin should be preferred. Next to it, as an efficient preparation is a fluid extract of the flowers. An infusion of the whole plant is not only unreliable, but is very apt to disagree.

The dose of convallamarin is from one to two grains. It can be made into pill with glycerine of tragacanth.

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\* *Practitioner*, April, 1884.

## QUARTERLY RETROSPECT OF SURGERY.

By FRANCIS J. SHEPHERD, M.D., C.M., M.R.C.S, ENG.,  
Surgeon to the Montreal General Hospital; Professor of Anatomy and  
Lecturer on Operative Surgery, McGill University.

*Surgery of the Kidney.*—At a meeting of the Medical Society of London, held on February 9th, Mr. Henry Morris read a paper opening a discussion on Renal Surgery. In this paper Mr. Morris limited himself to a discussion of the surgical aspect of renal calculus. He did not discuss the relative merits of lumbar or abdominal nephrectomy. The first part of the paper was taken up with the difficulties of the diagnosis of renal calculus. Many cases were mentioned where the kidney had been cut down upon, and no stone found. In many of these cases exploration was no doubt imperfect, and it is now held that an exploration is not complete until the kidney has been incised, and through this incision the pelvis and calyces thoroughly explored with the finger. In this connection, Mr. Morris pointed out the importance of searching the ureter for impacted calculus, and mentioned a case (reported in *American Journal of Medical Science*, October, 1884,) in which he himself had removed impacted stone from the ureter near its entrance into the bladder. The operation of simple exploration of the kidney without incision of its substance is in reality a harmless operation. The incision into its substance adds to the risk of the operation, but makes the diagnosis sure; and in cases of early scrofulous disease, which are so frequently mistaken for renal calculus, a free exit would be given to the pus, and the free drainage would be of great service. Mr. Morris, in his address, added but little to what is already known regarding the diagnosis of renal calculus. Its diagnosis will always be difficult and uncertain, and many kidneys, apparently healthy, will yet be cut down upon. The operation, even when performed in these cases, often relieves the pain and other symptoms, the nerves involved being probably cut across in the incision made to reach the kidney.

Mr. Morris advised removal of the kidney only when other means of relief failed, as nephrectomy was always a very serious

operation and should not be lightly undertaken. He did not consider nephrectomy justifiable in floating kidney. He held that with regard to wounded kidneys many circumstances had to be taken into account, but if the indications of injured kidney or pelvis of kidney are marked and the gravity of the case urgent, an incision should be made over the kidney at once and drainage or nephrectomy performed according to circumstances. Median nephrotomy or lateral prostatotomy should be performed if clots of blood accumulate in the bladder or are forced into the urethra, giving rise to obstruction, pain, and distress. In cancer of the kidney, Mr. Morris held that nephrectomy was seldom justifiable.

When large abscesses had formed where peri-nephritic suppuration had occurred, nephrotomy, followed by antiseptic irrigation and drainage, was advised. Nephrectomy should not be performed in cases of tubercular disease if the system at large was affected. Mr. Morris thought that if the disease was limited to one kidney and there was danger of exhaustion from suppuration, excision of the kidney might be advantageously performed after nephrotomy had failed. The difficult point, however, is to tell which kidney is affected, and when only one kidney exists. Tuschmann's instrument for closing one ureter was alluded to, but Mr. Morris thought such methods were likely to be of little value. He also stated that in 8,068 autopsies there were but two instances of congenital absence and one of congenital atrophy. (In a male patient who died recently in the Montreal General Hospital of injury to the spine, only one kidney, the right, was found. This is the first case, as far as I know, ever met with in Canada.)

In hydronephrotic tumours of the kidney, puncture or nephrotomy was advised before proceeding to extirpation. (*Lancet* and *British Medical Journal*, Feb. 14th, 1885.)

In the discussion which followed, nothing new was elicited. Mr. Durham stated that he believed he was the first to cut down on a kidney with a view to removing a stone. None was found on examination, though the symptoms were most characteristic. Mr. Knowsley Thornton had found hæmaturia absent in one

case of stone in the kidney under his care. He thought frequency of micturition was more often associated with scrofulous kidney than with calculus of the kidney. He advocated in excision of the kidney the bringing out of the ureter. He had now performed nephrectomy eleven times, with success in all, but in the six in which he brought out the ureter the recovery was most rapid.

In a letter published in the Philadelphia *Medical News*, Mr. Knowsley Thornton gives a synopsis of these cases of nephrectomy all performed by abdominal section. The cases were:—Calculous disease of kidney, three; scrofulous disease of kidney, three; hydronephrosis, two; sarcoma of kidney capsule, one; removal of kidney for wound of ureter during ovariectomy, two. He mentions also that he has had four nephrotomies,—one for cyst of kidney and three for scrofulous disease—with one death and one subsequent nephrectomy; also three successful nephrotomies. Professor Chiene of Edinburgh (in *British Medical Journal*, February 7th, 1885), reports a case of successful nephro-lithotomy in a man aged 29. The operation was performed under the spray; the stone was detected by passing in a needle, the kidney substance was then scratched through with the finger nail and the stone removed, by means of a vulsellum, with considerable difficulty. There was considerable oozing after the operation, and convalescence took place in five weeks. The stone weighed 48 grains.

In the remarks which follow, Mr. Chiene says the symptoms which encourage a surgeon to explore the kidney where no swelling exists are (1) long-standing pain in one loin, often intermittent in character, the pain shooting down into the inguinal region and testicle; (2) blood in the urine; (3) absence of any calculus in the bladder to account for the symptoms. If the stone be in the pelvis there will probably be pus in the urine, and the symptoms will be more severe and constant than if the stone be fixed in the substance of the kidney. Mr. Chiene also gives a *résumé* of the cases performed in Great Britain, and alludes to the celebrated case of Hobson, which has already been alluded to in this Retrospect.\*

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\* December, 1881.

Dr. E. Sonnenburg reports (*Berlin Klin. Wochensch.*, Nov. 24) the case of a woman, aged 52, who had suffered from pain in the right loin since last Easter, accompanied by fever, wasting and polyuria. She came under the care of Dr. S. in August, when the presence of a large fluctuating tumour in the right half of the abdomen was ascertained, and on aspiration pus was drawn from it. Nephrectomy by abdominal incision was performed on August 25th. The operation was difficult and tedious, the thin wall of the cyst rupturing in the removal. The whole pedicle was secured to the wound, but it was found impossible to secure the peritoneum. The organ was converted into a chambered pus-containing sac, with numerous thin-walled outlying cysts, and a large branching calculus was lodged in the dilated pelvis. Hardly any renal tissue remained. Great collapse followed, terminating in death on the second day, and during the whole interval no urine at all was secreted. There was no peritonitis, the left kidney weighed 190 grammes (8 oz.), was ænemic but histologically almost normal. The fatal issue, Dr. Sonnenburg thinks, could not be attributed to shock of the operation and collapse alone, but that the condition of aneuria, the cause of which remains unexplained, was in the main answerable for this result (*Lancet*, Nov. 29, 1884).

In a paper read before a recent meeting of German naturalists and medical practitioners at Magdeburg, Von Bergmann read a paper on "Extirpation of Kidney." He said the operation is no longer a rare one, for, since Simon's first case, it has been performed 121 times. It may be indicated in a case of malignant tumour or in one of pyelo-nephritis. In the former class the operation is a very dangerous one, as it is necessary to perform laparotomy and to make a double incision of the peritoneum. In 24 cases of this kind, death occurred in 17 soon after the operation—in five of which it was due to hæmorrhage; only four patients recovered. Extirpation of the kidney has much better results in cases of pyelo-nephritis, as of 40 cases 20 have been cured. Von Bergmann does not approve of simple incisions in these cases. During the last 12 months he has extirpated the kidney four times, in each case success-

fully (*Centralblatt für Chir.*, No. 45, 1884; quoted in *London Medical Record*, Feb. 16, 1885).

For readers interested in the surgery of the kidney, I give the following references:—

*Lumbar Nephrectomy.*—Paper read by Mr. Henry Morris before Royal Medical and Surgical Society of London, with discussion (*Lancet*, Nov. 29, 1884).

*Nephrectomy in Italy.*—*Lancet*, Dec. 13, 1884; Davy on a case of "Excision of the Kidney," *British Medical Journal*, Oct., 1884, p. 757; Reeves on "Treatment of Ruptured Kidney," *Lancet*, Oct., 1884, p. 588; "Lectures on Cases illustrating Renal Surgery," by Arthur E. Barker, *Lancet*, Jan. 17 and 24, 1885.

*Tracheotomy.*—At a meeting of the New York Academy of Medicine, held Dec. 4, 1884, Dr. Joseph E. Winters read a paper entitled, "Is the Operation of Tracheotomy dangerous in Diphtheritic Croup? When should the Operation be Performed?" The author said, at a recent discussion in the Obstetric section of the Academy, it was held that tracheotomy was the most dangerous of all the operations in surgery, and he could not permit this view to pass unchallenged. The danger from hæmorrhage, he thought, had been greatly exaggerated. After quoting a number of authorities to prove that tracheotomy was not a dangerous operation, he next proceeded to the enquiry of the manner in which diphtheritic croup caused death. He said in a large proportion of cases the cause of death was the prevention of the entrance of air to the lungs, and that in these cases tracheotomy afforded a fair chance of recovery. When the operation failed to save life it was either because it had been resorted to too late or from want of sufficient care in the after-treatment. In cases of croup the larynx was given rest, and the operation did not injuriously affect the course of the disease. He advocated an early resort to the operation before there was venous congestion of the lungs. The indications for the operation are labored respiration, recession of chest walls and alteration of voice, and when ipecac-huana is no longer successful in producing vomiting. Early

age does not contra-indicate the operation, as the operation has been successful at six and nine weeks. In the prognosis after the operation the following points have weight:—Early age; previous ill health, especially affections of a scrofulous nature; the presence of scarlatina or measles in the neighborhood, enlarged lymphatic glands and nasal diphtheria. If after the operation the respiration was not free and deglutition was difficult, it was a bad sign. The conclusions of the paper were as follows:—That tracheotomy, of itself, if performed with care, involved little danger to life; the operation should be performed early, but it was never too late to operate; and, finally, that no patient who died after the operation would have lived if it had not been performed. In the discussion which followed the reading of the paper, Dr. Jacobi said one of the dangers of tracheotomy was from bungling operating; the operation was not necessarily a bloody one if carefully and deliberately performed; if hæmorrhage should accidentally occur, it was better to arrest it before opening the trachea, as the entrance of blood into the trachea was more injurious than is generally supposed, and might result in broncho-pneumonia. He thought it a mistake to cut through the isthmus. Since the introduction of anæsthetics, the operation had become much less dangerous. He preferred chloroform to ether. Dr. Jacobi did not agree with Dr. Winters as to the time of the performance of the operation. Whether the case was one of diphtheritic croup or not, whenever there was laryngeal stenosis, accompanied by a considerable amount of recession, with well-marked and increasing dyspnœa, especially in the morning, with cyanosis and a frequent irregular pulse, the indication was to perform tracheotomy whether the obstruction was due to presence of membrane or not. Pneumonia was a contra indication. In cases where the symptoms above-mentioned existed to a limited extent, or were absent, it was better to wait; and there was all the more encouragement to do this on account of the recent advances which have been made in the medicinal treatment of croup. The bichloride of mercury, especially, had proved of great service. In ordinary cases of croup, he thought it was

safe to delay operating until the bichloride had been given a fair trial. The percentage of recovery without tracheotomy had in his practice been of late much greater than ever before. The causes of death in fatal cases after operation were : First—Diphtheritic sepsis ; second—complications of diphtheria as paralysis, nephritis with uræmic poisoning, adenitis, fibrinous pneumonia ; third—broncho-pneumonia, or œdema of the lungs ; and fourth, the descending diphtheritic process.

Dr. Lewis Smith said the older the child the less danger from tracheotomy. In two conditions the danger was especially great. The first was when the patient was nearly moribund ; here the operator, being hurried, does not take sufficient precautions for the control of hæmorrhage ; the danger was also greater when the operation was performed without anaesthetics. He agreed with Dr. Jacobi in operating, whether membrane was diagnosed or not, if there were symptoms of increasing stenosis. In cases where the larynx became affected late (fifth or eighth day) the membrane did not form so rapidly, and there was not the same urgent necessity for operating, and it was proper to defer operating until a fair opportunity had been offered for the action of remedial measures. In the first rank he placed alkaline inhalations, to which he believed *trypsin*, which formed an important constituent of the *extractum pancreatis*, could be added with advantage. Calomel was useful in the first stage, and good results had been derived from the use of bichloride of mercury. Tubage, which was first introduced by Trousseau, had been revived with a fair amount of success as a substitute for tracheotomy. He knew of at least one case that had been saved by it.

Dr. Johnson H. Ripley believed tracheotomy for croup in young children was one of the most dangerous operations in surgery. He had performed it over 100 times, and had met with almost every complication. He thought he had saved lives by assisting inexperienced operators, but he had seen a number of patients die on the table. In four of the fatal cases the operation was performed by men of marked surgical ability. In one of these the internal jugular vein was punctured ; and

in one case he had seen a knife plunged into the spinal cord. He said that men who operated early had the greatest success, because these early operations were usually unnecessary. The most common cause of death after the operation was bronchial croup, next nephritis with uræmic poisoning, and respiratory or cardiac paralysis.—(Condensed from *Medical News*, Dec. 20, 1884.)

This discussion is most instructive, and shows the great diversity of opinion which exists as to the safety of the operation. I certainly hold, with Dr. Winters, that there is no danger in the operation itself if performed carefully; also that, when performed by men accustomed to operating, there need be no more fear of hæmorrhage here than in other operations. Such an one can cut down on the trachea, even in children with thick necks (if he has one good assistant), and avoid wounding any important vessel. As the vessels are exposed the assistant should draw them aside, and if one be accidentally wounded the bleeding point can be quickly seized with Pean's forceps and the hæmorrhage immediately arrested. I have performed the operation a number of times on all kinds of necks, and have rarely lost more than a teaspoonful or two of blood. If a large vein, as is sometimes the case, crosses the line of the incision, it ought to be cut between two ligatures placed on it. I have never yet seen a middle thyroid in the living, but have frequently seen it in the dissecting-room; but if met with it could be recognized before incising the trachea—that is, if the operation up to that point is as bloodless as it ought to be and can be. The same may be said of an abnormal innominate or carotid artery crossing the trachea. The reason hæmorrhage is so frequent and occasionally fatal is that the operation is generally performed by men altogether unaccustomed to other operations, who are not used to handle the scalpel lightly and carefully, and who, when hæmorrhage does occur, are unable to combat it, not having acquired that deliberateness with quickness of hand and eye which soon comes to one accustomed to frequent operations in general surgery. Most laryngologists, for instance, look upon tracheotomy as a formidable

operation, and, after the skin incision is made, fear to use their scalpel, but instead use a forceps to separate the deep structures, and so displace the parts and make the operation a difficult and tedious one. The cause of death in most of the fatal cases I have met with has been due to the extension of the membrane down to the bronchi; some have died of bronchopneumonia and diphtheritic sepsis, but I have never yet seen a death on the table. I have seen on several occasions, however, apparent death just before the trachea has been opened, probably from heart failure. In these cases, opening the trachea and performing artificial respiration has always brought the patient to. I always open the trachea below the isthmus, and if the isthmus be low down hook it up with a retractor. The trachea below the isthmus is more easily brought into view, the structures about it not being so closely adherent as above, the assistant, as the operation descends, can more easily retract the parts. If no skilled assistant can be obtained, a pair of Pean's forceps clipped on each side of the wound answers admirably. In my experience, death occurs not from the operation but from the disease.

Mr. Ashby G. Osborn, in the *Brit. Med. Journal* of Jan. 17, 1885, reports that in a recent case of tracheotomy, after inserting the tube, he was astonished to find that relief failed to ensue, and the patient, notwithstanding that artificial respiration was practised, died on the table. A necropsy showed that the tube had been passed down between the trachea and false membrane, thus pressing together the sides of the lining tube of false membrane. This source of danger, from the absence of its mention in text-books, Mr. Osborn thinks, has not often been met with. If Mr. Osborn had made it a practice, before introducing the tube, to hold the cut edges of the tracheal incision apart with hooks for a few minutes, and search for false membrane at the site of and below the wound with forceps, this accident would not have happened. It seems to me that most operators insert the tube too quickly; there is no reason for hurry, and mucus and false membrane can always be removed from the trachea better before the tube is inserted than after.

*Diagnosis of Perineo-Tibial Sprain.*—M. Labbé, of the Beaujon Hospital, says there are four traumatic lesions which

are usually found about the ankle. (1) Tibio-tarsal sprain and (2) medio-tarsal sprain, which are easily distinguished from each other, but (3) perineo-tibial sprain or distension of the ligament which unites the tibia and fibula is not so easily distinguished from (4) fracture, with tearing of the external malleolus. In order not to fall into an error which would be decidedly disadvantageous to the patient, it should be noticed that in perineo-tibial sprain the ecchymosis is seen a little in front of the anterior border of the fibula, while in separation of the external malleolus, it is behind the bone, in the depression which separates it from the tendo Achillis. With regard to the pain, in the case of fracture it is seated immediately over the bone itself; but in the case of sprain, the greatest pain is found in front of the anterior border of the bone. It is in these cases that the elastic bandage has such excellent effect.

Marc Sée has recently recommended the treatment of sprain by the elastic bandage. It is the only method, he says, which fulfils the two indications (1) to cause as rapid absorption as possible of the blood extravasated around the joint and (2) to favor cicatrization of the torn ligaments and ruptured parts by complete immobilization. The antiphlogistics and blood-letting formerly advised by Hunter and Guersant only partially fulfil the former indication. There is the same objection to the movements which Ribe and Bonnet advise for the injured joint. The refrigerants and cold water baths cause contractions of the tissues around the joint and dispel the inflammation, but they are not favorable to the absorption of the infiltrated fluids. Even massage, though superior to the other remedies first mentioned, fulfils only the second indication. The elastic bandage is much superior to massage; its action is continuous, and it favors immobilization of the joint. The bandage should be applied to the skin itself, care being taken to fill up the flat and depressed places with cotton wadding so as to give a uniform surface for the bandage to act upon.—(*Revue de Thérap*, July 15, 1884, quoted in *Practitioner*, Jan. '85.)

For several years past I have treated all sprains of the ankle joint, if seen early, by plaster-Paris bandage applied over the stocking from the cleft of toes to about three inches above the

malleoli. By this means immobility and pressure are obtained. In most cases the patient thus treated is able to get about in less than a week.

*Boroglyceride in Ringworm of the Scalp.*—Dr. Shoemaker (*Journal of Cutaneous and Venereal Diseases*, Vol. II, No. 7) in ringworm of the scalp, has the affected parts first washed with a weak alcoholic solution of thymol, naphthol, or corrosive chloride of mercury, every day or two. To the surface thus cleansed he immediately applies a 50 per cent. solution of boroglyceride until the entire scalp is saturated with it. He believes the borax to be one of the most efficacious antiseptic and anti-parasitic agents, having at the same time a mild, astringent action, and thus tending to allay irritation and soothe the parts. The glycerine at the same time penetrates and carries the substance into the follicles to the parasites. Glycerine has a great affinity for water, and withdraws this from the tissues, thus depriving the fungus of one of its main elements of development. He cannot speak too highly of this application, from which alone he has observed rapid cures in some early cases of ringworm of the scalp. Boroglyceride is devoid of poisonous qualities, and the most irritable scalp will bear it. It should be applied night and morning with a sponge or mop, and must be rubbed well into the follicles with the tips of the fingers.

*Treatment of Gunshot Wounds of the Intestines.*—At a meeting of the New York Surgical Society, held January 27th, 1885, Dr. Wm. T. Bull read a paper on "A Case of Gunshot Wound of the Intestines," treated successfully by laparotomy with suture of the intestines. (*Medical News*, February 14th, 1885.) He commenced his paper by stating that the majority of surgeons are still opposed to an exploration of the abdomen in gunshot wounds, notwithstanding the very favorable results following operations for the various abdominal diseases. Most surgeons advocating laparotomy for gunshot wounds have been compelled to frame their conclusions on theoretical grounds alone, not being able to support their views by a single successful case. Dr. Bull finds that up to the last twelvemonth there are but two recorded cases in which thorough abdominal explo-

ration was resorted to by laparotomy. Kinloch, in 1882, opened the belly and sutured five pistol shot wounds in mesentery and intestine; two other wounds escaped observation, and the patient died in thirty hours. Mr. Lloyd, of Queen's Hospital, Birmingham, performed abdominal section for suppurative peritonitis three days after a pistol ball had perforated the small intestine in two places. Death followed in two hours. Last summer, Kocher, of Berne, performed laparotomy for pistol shot wound of the stomach; he sutured the wound, and the patient recovered.

The case reported by Dr. Wm. T. Bull is the second successful case on record, and is briefly as follows:—Wm. E., a truck driver, aged 22, was brought to the Chambers Street Hospital, New York, Nov. 2, 1884, at 10 p.m., suffering from a pistol shot wound of the abdomen, which he had received half an hour before. On admission he was in good condition—temperature,  $97.8^{\circ}$ ; pulse 96, and of good volume; abdomen tender, but not tympanitic or swollen. He was troubled with frequent retching. The wound was not probed, but merely dressed with dry antiseptic dressing. Twelve hours after, when seen by Dr. Bull, he had a pulse of 102 with a temperature of  $100.2^{\circ}$ , and respiration 30. He had also severe abdominal pains, and vomited some watery fluid; no blood in urine, and had passed nothing per rectum; abdomen tender all over, but not swollen; rectum normal. Had taken nothing but a little milk, which he shortly afterwards threw up. Seventeen hours after the accident his condition was unchanged, so Dr. Bull, recognizing the importance of early interference and the invariably fatal results following wounds of the intestines, and judging by the increase of pulse temperature and respiration, with pain, vomiting and tenderness, that peritonitis had possibly already commenced, decided to open the abdomen and search for the wounded intestine. The room was heated to  $80^{\circ}$  F. for two hours before the operation; a spray of 5 p. c. solution of carbolic acid was kept going in the room; all the usual antiseptic precautions were taken in connection with hands, instruments, sponges, etc. A vertical incision was first made into the bullet wound, which

showed that it actually perforated the peritoneum; then the usual incision was made in the median line from the umbilicus to just above the pubis. On opening the peritoneum a large amount of bloody serum (two pints) flowed out; this contained blood clots, but no faecal matter. On the border of the first part of the gut presenting was a slight incised wound of the serous coat only, probably made by the scissors. Three or four feet of intestines were then pulled out of the wound and carefully examined. The intestines and mesentery were tinged in places with flakes of fibrin. The gut pulled out was placed between layers of antiseptic towels, and occasionally drenched with warm water. The gut was slightly congested, but the coils were not adherent. The first wound encountered was about half an inch in diameter, situated midway between the attached and free border of the intestine, several feet from the cœcum. The serous coat was cut through and the mucous membrane lacerated and everted. It bled easily when its edges were separated, but not till then did yellow faeces, the consistency of gruel, escape. In all the wounds this was the condition; the everted mucous membrane acted as a plug, which prevented the escape of faeces. The abdominal wound was plugged with large sponges, and the wounded part of intestine laid on a towel and emptied of faecal matter through the wound, and held with both hands by an assistant. The mucous membrane was inverted by making traction with two hooks so as to make the wound hole a longitudinal slit. The peritoneal edges were then brought together by fine sutures, applied according to Lembert's\* method; iodoform was rubbed along the line of suture. After removing several more loops, the cavity of the pelvis was empty, and the cæcum, sigmoid flexure, rectum and bladder were, after sponging out a considerable amount of bloody fluid with clots, examined. The bullet was soon found lodged in the upper surface of the sigmoid flexure, close to its mesenteric border. It was immediately beneath the

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\* See Retrospect, June, 1884; also in same number other operations in the Intestines, especially paper by Parkes on "Gunshot Wounds of the Intestines."

peritoneum, but on removing it the bowel was found to be perforated. Three sutures closed the wound. The open pelvis was then protected with sponges, and more intestine was drawn out. A third perforation was seen, similar to the first in size, but situated near the free border of the gut; then a fourth and fifth close together, and separated only by a bridge of serous membrane; a fifth and sixth wound was found a little further on; these four last-mentioned wounds being all within a length of four inches of intestine. The two wounds together were converted into one, twelve sutures being required to close it; all the wounds treated as the first had been. A seventh wound was found in the intestine still remaining in the cavity; this was closed by five sutures. All the small intestines were now out except the duodenum. The pelvis was then sponged out with a 21 per cent. solution of carbolic acid, the intestines replaced and the line of sutures inspected as returned. The wound in the abdomen was closed by heavy silk sutures passing through the entire thickness of its walls; the incision enlarging the bullet wound was closed in the same way, a drainage tube being left at its lower end. Iodoform and borated cotton were used as dressing. The operation lasted two hours. Ether was not well borne, and at one time the breathing ceased and artificial respiration had to be resorted to. The patient did well after the operation, and in 24 days was able to eat a hearty Thanksgiving dinner. When shown to the Surgical Society three months after, was in excellent health.

Dr. Bull is to be congratulated on the able way he treated the case and the successful result. No doubt had the man been left without operation, he would have died as so many have done before, under the expectant treatment. The good result of this case will encourage others to follow in Dr. Bull's footsteps and actively interfere in gunshot wounds of the intestines, with the result, it is hoped, of saving many lives.

In the *Lancet* of February 7th, 1885, Mr. Albert Wright relates a case of perforating bullet wound of the abdomen which resulted fatally. It was the case of an inspector of police who was shot in the abdomen by a burglar, and who after being shot

ran half a mile after the burglars, and then walked back two miles to the police station. He was seen by Mr. Wright two hours after the injury. At that time there was not much shock. The bullet had entered two inches below, and to the left of, the umbilicus. The wound was closed and morphia injected hypodermically. During the night all doubt as to the intestine being wounded was removed by the patient vomiting a large quantity of dark blood. The patient still being in good condition, nothing was done; later, fluid and flatus exuded from the wound, and the abdomen became tympanitic. A counter-opening was made below the wound and a drainage tube inserted. Patient kept getting worse; vomited at times; great tympanitic and abdominal pains, and finally died on the fifth day. At the autopsy a large wound was found in the descending colon, 18 inches from the rectum; the wound was plugged by a fragment of clothing, and there was a good deal of extravasation in the areolar tissue between the sacrum and the colon. The bullet was found imbedded in the centre of the sacrum.

*Capillary Puncture of the Urinary Bladder.*—Rosenberger advocates this mode of treatment wherever it seems desirable to submit the urethra to a rest-treatment in stricture, hæmorrhage, prostatic affections, etc., etc. In the case of strictures, even those which are permeable improve much more rapidly when they are subjected to this mode of treatment. In one case a capillary tube was passed daily from the anus, and the bladder washed out through it without any reactionary fever being set up. Contrasted with the old operation, in which a large and powerful trocar was employed, its results are greatly superior, and the death-rate, especially among older people, much diminished.—*Centralblatt für Chir.*, p. 376, Nov., 1884; quoted in *Practitioner*, Dec., 1884.

This mode of treatment may be superior to the old one of using the trocar, but offers no special advantages over treatment by aspirator.

*Resection of Large Intestine.*—Mr. Sidney Jones, of St. Thomas' Hospital, lately resected the cæcum and part of the colon for scirrhus growth in a female patient, aged 54. The

diseased part was completely excised and the ends of the intestines sewn together—ileum to colon. Patient lived three days. Cause of death, peritonitis. Operation performed under the spray.—*Lancet*, Jan. 10, 1885.

Mr. Walter Whitehead (*British Medical Journal*, Jan. 24, 1885,) reports a case of excision of the cæcum for epithelioma in a man aged 38. The lower two inches of ileum, all the cæcum and the greater portion of the ascending colon were removed. The cut ends of gut were brought out of the incision in right lumbar region, the tumour itself having been removed by means of a median incision. The patient did well for a time, but died on the fifteenth day of peritonitis. The operation was performed with strict antiseptic precautions, but without the spray. Mr. Whitehead thinks if the man had possessed a better constitution and had been more temperate in his habits, recovery might have ensued.

*Portable Antiseptics.*—Mr. T. E. Hayward advises as a portable antiseptic, corrosive sublimate. He says if 10 grains of corrosive sublimate, in the form of powder, be carried in the pocket wrapped round with gutta percha tissue to avoid deliquescence, a solution can be readily obtained, as the powder will freely dissolve in water. By adding one of the powders to a pint of water a solution of 1 in 960 is obtained. He prefers this method to that advocated by Sir Joseph Lister, viz., the solution of the bichloride in glycerine.

*Repair of Tendons after Destruction.*—At a recent meeting of the Berlin Medical Society, Dr. Gluck reported on a patient whom he had shown to the Society in February, in whom the tendons of the extensor communis digitorum and the extensor indicis had been destroyed in consequence of a phlegmonous affection of the back of the hand. Dr. Gluck replaced the tendons by a plait of catgut fibres, extending from the metacarpophalangeal articulation to the transverse dorsal carpal ligament. The operation had succeeded perfectly, the functions of the missing tendons being now completely performed—ten months after. He also shewed another patient, aged 76, on whom he

had performed the same operation, rather less extensively, but with equally good results. He believes that the catgut, instead of being absorbed, becomes organized. He has tried a similar experiment with divided nerves by stitching one extremity to each end of a decalcified bone, with the result that they have become united. This method has been recommended also by Dr. Vendoit, of Liège, and called by him "Nevrotization du tube osseux."—*Brit. Med. Jour.*, Jan 10, 1885.

*Iodoform Eruption.*—Dr. A. Neisser (*Deutsche Med. Woch.*, July, 1884) has observed seven or eight instances in which the external employment of iodoform has occasioned an erythematous affection, characterized by the formation of small vesicles and closely resembling acute eczema. In a few hours after the application a deep redness of the surfaces comes on, accompanied by violent burning and itching, then vesicles filled with clear fluid appeared, and soon formed crusts. This resulted, in some cases, from a single application. He defines the disease as an acute dermatitis, and likens it to mercurial eczema. Many patients are peculiarly susceptible, and the slightest trace of iodoform in any application will cause this eruption to appear. (*Journal of Cut. & Ven. Dis.*, Feb. 1885.) I have seen this eruption several times following the application of iodoform to wounds, and at first it looks very like as if the wound was taking on an erysipelatous action. I well remember the consternation the appearance of this eruption caused me in the first case of amputation (of the leg) I dressed with iodoform. I felt sure, especially as the temperature was somewhat elevated, that erysipelas had set in. This was within 48 hours of the application at the time of the operation. The patient, however, kept getting better instead of worse, and soon the case was recognized as one of iodoform rash.

## Correspondence.

## THE GULSTONIAN LECTURES.

LONDON, March 1, 1885.

*To the Editor of the CANADA MEDICAL & SURGICAL JOURNAL.*

If Canadians have reason to feel hurt at the slight recently shown them by the Colonial Minister in refusing their generous and patriotic offer, an event took place a few days ago in London, inside the hall of the College of Physicians, that ought to stir pride in the bosom of every Canadian. I refer to the delivery of the Gulstonian lectures of this year by Dr. Osler before that honourable and intellectual body, the College of Physicians. All your readers doubtless know that for the past 200 years these lectures have been delivered by one of the Fellows yearly, and that during this half of the century each year brought forward a Fellow whose name has become a household word in the profession. It has been the sole aim of the College to assign the task, or rather honour I should say, to a Fellow who they felt confident would, by the course of lectures, enrich medical knowledge and shed lustre upon the body. This is the first time that one outside of England has had the honor consigned him, and rarely has it been consigned to anyone outside of the metropolis. The first of the series was delivered the 26th February in the presence of a large audience, consisting for the most part of men ripe in years and knowledge. One need only mention such names as Sir William Jenner and Hughlings Jackson to bear out that statement. Sir William Jenner occupied the chair; in front of him lay the mace on the table, and in front of the table stood the lecturer clad in a flowing scarlet robe—the academic dress of the College. The lecturer betrayed as little nervousness before that august body as if he were delivering a simple lecture on physiology before a class of green students. A little more fire in the eyes, with perhaps a greater degree of enthusiasm, were noticeable as audience and manuscript were lost sight of in the all-absorbing interest of the subject. The quondam pupil, as he sat in one of the benches viewing his former teacher and present friend,

clothed in flowing robes, and with eloquent language elucidating the deep subject of the pathology of endocarditis before an audience whose very names call forth reverence in every part of the civilized world, could scarcely keep his seat with emotion. I am certain he felt a great deal more pride than the honoured lecturer himself. He could not refrain from reflecting that that was honour indeed, and if Canada had not been given an opportunity of shining in the Camp of Mars she was shining and acquiring fame in the Temple of Minerva. As I have only been here a few days, I have not anything more to communicate which would likely to be of any interest to your readers.

H. N. V.

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### Reviews and Notices of Books.

**The National Dispensatory, containing the Natural History, Chemistry, Pharmacy, Actions and Uses of Medicines: including those recognized in the Pharmacopœias of the United States, Great Britain and Germany, with numerous references to the French Codex.**—By ALFRED STILLE, M.D., LL.D., and JOHN MAISCH, Ph.D. Third edition, with 311 illustrations. Philadelphia: Henry C. Lea's Son & Co.

The labor expended in the preparation of this great work is simply enormous. It is not a mere rough compilation of undigested facts, but an elaborate and critical review of, it may be said, all the knowledge that is at present known on all subjects relating to pharmacy, pharmacology and therapeutics. In many respects it is superior to its only rival, the U. S. Dispensatory. Especially in the fullness and accuracy of the therapeutical effects of drugs is this the case. As much, however, cannot be said of that portion devoted to modern scientific pharmacology. In this department we miss that thorough treatment of the subject which so eminently characterizes the other portions of the work. We would respectfully suggest to the learned authors that they should deal with this important subject, in a future edition, which we have no doubt will soon be called for, more in the modern spirit of investigation than is the case in the present

volume. The different drugs in the pharmacopœias of the United States, Great Britain, Germany and France are not only dealt with, but also a vast number of medicinal agents which have not, as yet, found any "official" recognition. We know of no work where the same amount of information is obtainable on the extra-pharmacopœial drugs. Of special importance to the medical practitioner is a very complete therapeutical index, which, if it has any fault, is in being over-laden with useless recommendations. The fact of this huge work of 1750 pages having reached a third edition in four years is sufficient proof that both medical men and pharmacists recognize it as an almost indispensable work of reference.

### Diseases of the Heart and the Thoracic Aorta.—

By BYRON BRAMWELL, M.D., L.R.C.P.E., Lecturer on the Principles and Practices of Medicine, and on Practical Medicine and Diagnosis, in the Extra-Academical School of Medicine, Edinburgh; Pathologist to the Edinburgh Royal Infirmary, &c., &c. With 317 illustrations. New York: D. Appleton & Co.

This is a most exhaustive treatise on this special subject, well-arranged, including descriptions of all the recognized derangements of the heart, its walls, valves and surroundings. It is highly original, containing in every part the results of the industrious author's own observations in the wide field to which he has access in the great Royal Infirmary of Edinburgh; and in the explanations of the various complex mechanical problems, it shows the presence of a philosophical and scientific mind. It is largely founded upon the lectures delivered to the students of the Extra-Academical School, a form which often renders such treatises most acceptable and readable. There is much material here which tends to make it the most complete and valuable of recent works upon affections of the heart. Nor the least important portion is that devoted to the discussion of thoracic aneurism, of which the author has evidently had a large experience, and many of the cases of which are related in illustration of important points. Full praise should be awarded to

the publishers for the admirable appearance of the book. It is almost luxurious. The type is unusually fine, and the pages teem with excellent woodcuts. A striking feature is the introduction of a considerable number of full-page photo-lithographs, admirably done, of hearts or other diseased structures. We strongly recommend this new work from a now well-known medical writer to the attention of our readers.

### A New Method of Treating Chronic Glaucoma.—

By GEORGE LINDSAY JOHNSON, M.A., M.B.B.C., Cantab.,  
Clinical Assistant Royal Westminster Ophthalmic Hospital, &c. London: H. K. Lewis, 136 Gower Street, W.C.  
1884.

When taking the degree of M.B. at Cambridge in 1882, Mr. Johnson read a thesis on the subject of "Glaucoma," and, at the suggestion of Dr. Paget, now puts it into shape for publication. The main object which the author has in view is to establish the proposition "that the ordinary method of treatment of glaucoma by iridectomy, though highly successful in acute forms of the disease, is nevertheless both uncertain and unsatisfactory in the chronic condition of glaucoma." The first part of the book is devoted to the physiology of the organ of vision, and the second part to its pathology, with special reference to chronic glaucoma. The operation which the author recommends for the latter affection, and which was originally suggested by Mr. Cowell and Mr. Rouse, is as follows:—After arranging the patient and fixing the eyeball in the usual way, the operator gently thrusts a double-edged modified Wanzel's knife through the sclerotic into the vitreous humour towards the centre of the globe. The point of the knife is entered about 4 mm. behind the sclero-corneal junction, and should penetrate to the distance of 1 cm. (nearly half an inch), the flat side of the instrument lying not quite parallel but somewhat oblique to the long axis of the eye. The knife is then very slowly withdrawn and, if the tension is high, slightly turned on its axis, so as to allow the lymph freely to escape. No anæsthetic is needed. The author has performed this operation six times and has seen it per-

formed about ten more, and in no case have any bad results followed. We can recommend this little work to all, but more especially to those taking an interest in ophthalmic surgery.

**An Introduction to Pathology and Morbid Anatomy.**—By T. HENRY GREEN, M.D., Lond., F.R.C.P.L., Physician to Charing Cross Hospital, &c. Fifth American from the sixth revised and enlarged English edition. With 150 engravings. Philadelphia: Henry C. Lea's Son & Co.

This practical and elementary treatise on pathology and morbid anatomy is well known in this country, and is extensively used by students. Its merits, therefore, require no extended notice. It is sufficient to mention that this new edition has been issued, and is, by reason of several important additions, in every way superior to former ones.

**The Science and Art of Surgery.**—By J. ERIC ERICHSEN, F.R.S., LL.D., F.R.C.S. Eighth edition; revised and edited by MARCUS BECK, M.S. and M.B., Lond., F.R.C.S. Vol. II. Philadelphia: Lea Brothers & Co.

We have already expressed our opinion of this work in reviewing the first volume in December last. Volume II is quite equal to the first, and is fully up to date in regard to all modern improvements and recent advances in surgery. It contains the remainder of the Third Division on *Surgical Diseases*, as those of the skin, nervous system, lymphatic system, blood-vessels, bone, joints and muscles, with a chapter on deformities. It also contains the Fourth Division, consisting of *Diseases of Regions*, as head and neck (including diseases of the nose and ears), jaws, plastic surgery of face and mouth; diseases of throat, operations on air tube, diseases of breast and abdomen, with a chapter on hernia and intestinal obstruction, diseases of large intestines and anus, and a chapter on the surgical operations on the kidney. The last nine chapters are on diseases of the genito-urinary organs, Chapter LXXV being devoted to the diseases of the female genital organs, including a description of the operation of ovariectomy. There is also a short appendix on

corrosive sublimate as an antiseptic. From this list it will be seen that Vol. II contains an immense amount of information in a comparatively small space. There are some points that we should like to see altered in another edition. Here are some taken at random. For instance, there is no mention of Billroth's operation for excision of the tongue; ligature of the lingual artery is said to be performed only to arrest hæmorrhage from a cancerous ulcer. There is no mention made of Fenwick's operation for excision of the knee (although Mr. Davy's tenon and mortice operation is described). The late Mr. Heaton's operation for the radical cure of hernia is not alluded to. In describing infiltration of urine, it is said that it is most frequently extravasated by the rupture of the *membranous* portion of the urethra, and makes its way *through* the anterior layer of the triangular ligament to reach the scrotum. The book is so well written that it is a pleasure to read it, and it is so full of sound common sense that we have no hesitation in recommending it to our readers as one of the best of modern text-books on surgery.

**The Retrospect of Medicine:** Being a Half-yearly Journal containing a retrospective view of every discovery and practical improvement in the Medical Sciences.—Edited by W. BRAITHWAITE, M.D., and JAS. BRAITHWAITE, M.D., Lond. Vol. XC; July–December, 1884. London: Simpkin, Marshall & Co.

Braithwaite's Retrospect comes to hand as usual, and is no doubt appreciated as much as ever. The cream of the current literature for the half year is always skimmed off with much judgment, and but few points of value escape being put away here for easy reference. It is to be hoped that the rich stores contained in these volumes are widely availed of in this country.

**Elements of Practical Medicine.**—By ALFRED H. CARTER, M.D., Lond.; M.R.C.P., Lond.; Physician to the Queen's Hospital, Birmingham, &c. Third edition. New York: D. Appleton & Co.

This work is intended and adapted for the use of students.

It is, as its name implies, elementary. It gives in as concise a form as is possible the essential features of all the leading classes of diseases, with directions for diagnosis and treatment. It can by no means take the place of a complete treatise or text-book of medicine, but will no doubt prove useful to beginners and to others desirous of obtaining the general facts relative to functional and organic disorders, and who do not pretend to go deeper into the subject. The object in view is fully attained, and it can be recommended as a reliable and carefully prepared hand-book.

### Books and Pamphlets Received.

TRANSACTIONS of the College of Physicians of Philadelphia. Third series. Vol. VII.

COCAINE AND ITS USE IN OPHTHALMIC AND GENERAL SURGERY. By H. Knapp, M.D. New York and London: G. P. Putnam's Sons.

THE THERAPEUTICS OF THE RESPIRATORY PASSAGES. By Prosser James, M.D. New York, Wm. Wood & Co.

A MANUAL OF THE MEDICAL BOTANY OF NORTH AMERICA. By Laurence Johnson, A.M., M.D. New York, Wm. Wood & Co.

DISEASES OF THE URINARY AND MALE SEXUAL ORGANS. By Wm. T. Bel-  
field, M.D. New York, Wm. Wood & Co.

THE YEAR-BOOK OF TREATMENT FOR 1884. A Critical Review for Prac-  
titioners of Medicine and Surgery. Philadelphia: Lea Brothers & Co.

A MANUAL OF ORGANIC MATERIA MEDICA, being a Guide to the Materia  
Medica of the Vegetable and Animal Kingdoms, for the use of Students,  
Druggists, Pharmacists, and Physicians. By John M. Maisch, Ph.D.  
Second edition. Philadelphia: Lea Brothers & Co.

HUMAN OSTEOLOGY, comprising a description of the Liver, with Delinea-  
tions of the Attachments of the Muscles, the General and Microscopical  
structure of Bone and its development. By Luther Holden, assisted by  
James Shuter, F.R.C.S., M.A., M.B. Cantab. With numerous illustrations.  
Sixth edition. New York: William Wood & Co.

### Society Proceedings.

#### MEDICO-CHIRURGICAL SOCIETY OF MONTREAL.

*Stated Meeting, Dec. 19th, 1884.*

T. G. RODDICK, M.D., PRESIDENT, IN THE CHAIR.

#### PATHOLOGICAL SPECIMENS.

DR. KENNEDY exhibited some inky-black sputum expectorated by a middle-aged man, a painter, who enjoys good health. He has been expectorating this black sputum for about seven years; never much at a time, but lately is rather worse. It comes

just after a slight cough, and is at first viscid. He has never inhaled carbon. There are over his body several melanotic spots. Dr. Kennedy suggested that he may be eliminating pigmentary matter from the lungs. It was not chemically examined. Dr. Kennedy promised to further investigate this case, and bring it again before the Society in the form of a paper.

*Malignant Disease of the Œsophagus, causing stricture.*—

DR. ROSS exhibited the specimen and related the case :

J. W., aged 54, was admitted to Hospital Dec. 10th, 1884, suffering from a severe attack of acute pleurisy, with effusion, commencing twelve days before. *Previous history*—Difficulty in swallowing for six months previously, beginning with sudden obstruction in swallowing glass of hot spirits; since then was unable to swallow solids, but could readily take liquids; was a hard drinker, and a subject of constitutional syphilis; no family history of cancer. Owing to patient's serious condition, no examination by bougies was made, but he stated that three months before admission Dr. Perrigo had treated him for stricture of gullet, with some benefit; he stated also that he had lost weight rapidly since beginning of illness. Patient, from the first, was very weak, gradually sank, and died on Dec. 17th. *Autopsy*—Right pleura contained 40 ozs. thick, yellow, very turbid serum. Right lung collapsed; surface covered with a thick sheeting of lymph; no pneumonia. Left lung normal. Heart normal. Œsophagus, at level of bifurcation of trachea, presented a large, deep ulcer, with shreddy base measuring three-quarters of an inch by one-and-a-half inches; edges not indurated, but rather excavated, although base is thickened and a small lump of glands beneath base were enlarged and firm, and projected into left bronchus, shewing beneath the mucosa (which is intact) as a firm mass the size of a large bean. No secondary nodules elsewhere. No signs of syphilis. On microscopical examination, base of ulcer showed an epitheliomatous growth, the cells being arranged in columns and nests.

DR. PERRIGO said he had passed a bougie down this man's œsophagus on two or three occasions, with relief to the dysphagia for a time.

DR. MILLS said that German investigators had proved by experiments that a band of muscles of the œsophagus or intestines may be excited into contraction and remain so for a long time, like a tetanic spasm of a voluntary muscle.

DR. SMITH said this patient came to see him about three or four months ago, complaining of difficulty in swallowing and cough. He diagnosed malignant disease, and sent him to Dr. Perrigo.

DR. MIGNAULT said he had a patient, a nun, who has periodic attacks of dysphagia, which he was always able to relieve by a hypodermic of morphia. His patient, ten years ago, drank by mistake a strong solution of potash. He believes there is an old cicatrix in her œsophagus, which becomes irritated and sets up spasm.

DR. CAMPBELL said that a duodenal ulcer will at times allow food to pass over it and at other times will not. He related briefly the history of a patient of his who died from hæmorrhage of an ulcer in the duodenum, in whose case these symptoms existed.

DR. R. L. MACDONNELL read a paper entitled "*A Year's Medical Work in the Out-patient Room of the Montreal General Hospital,*" in the course of which he read very many reports in brief of some of the more instructive cases he had met with during the year ending May 31st, 1884, together with remarks upon the clinical features peculiar to the cases noted, as well as to those met with in out-patient practice generally. The paper included more particularly remarks upon three cases of lead palsy, in two of which no distinct history of metallic poisoning could be traced, while in the third, colic and wrist-drop had followed the prolonged use of tinned vegetables. Two patients with locomotor ataxia had presented themselves, and one of tabes in its pre-ataxic stage, the symptoms present being recurring gastric attacks, one with hæmatemesis, at first supposed to be caused by alcoholism, followed by temporary derangement of vision (Argyll-Robertson pupil), slight numbness of the feet, and loss of knee-jerk. There was a history of syphilis in all. A case of primary lateral sclerosis of the cord, in a boy aged 12, was also described.

*Fissure of the Anus.*—DR. KENNEDY related a case which he was treating by passing a rectal bougie. The use of hydrochlorate of cocaine renders the operation painless.

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*Stated Meeting, January 9th, 1885.*

T. J. ALLOWAY, M.D., FIRST VICE-PRESIDENT, IN THE CHAIR.

*Case of Hernia, with great hypertrophy (elephantiasis) of scrotum.*—DR. T. D. REED showed photographs and gave the following account:—The patient, a French-Canadian, aged 60, applied at the Montreal Dispensary recently for treatment of cedema of left leg. On examination, he was found to have a very large pyriform tumor projecting from the pubis, reaching to within one inch of the patellæ, measuring  $14\frac{1}{2}$  inches in length and 30 inches in great circumference. The man had had an irreducible hernia of the right side of several years' standing, and thought the scrotum had been increasing in size for about fourteen years. The dragging of the mass, the estimated weight of which was 14 lbs., on the pubic tissues had resulted in burying the penis completely, which could be traced from a groove on the side of the tumor. Dr. Reed considered the mass to be in the upper third, hernia; in the middle, hydrocele; and the lower, hypertrophied scrotal tissue. There was a sinus in the solid portion, from which exuded a watery fluid. The surface of this part was uneven, and the skin adherent. The patient had no difficulty with the bowels, and the belly was rotund. To urinate, the patient would elevate the mass with the hands, and pushing himself against some object, as a chair-back, bring out the glans. The urine was examined for albumen, with negative result. Under treatment, the cedema of the leg diminished. Surgical interference with the tumor was refused. The patient could walk long distances at a moderate pace.

*Removal of an enormous stone from the bladder.*—DR. HINGSTON exhibited to the Society an enormous calculus removed by him from the bladder by the lateral method. He said his object in doing so at so late a period was in consequence of the advocacy on this and the other side of the Atlantic of the supra-pubic

method for stones of large size, an operation which, even with Petersen's modification, he considered a serious one. He said the *Medical News* of Philadelphia had mentioned the removal of a stone weighing three ounces by the supra-pubic as worthy of record; and Sir Henry Thompson, in the *British Medical Journal* for July, had stated: "no incisions can be made in the region which belongs to that operation" (the lateral) "through which a calculus of three ounces or more can be extracted." The calculus Dr. Hingston exhibited weighed five ounces and five drachms when removed in July 1873, by the lateral method. It was a somewhat flattened ellipse, and measured in breadth,  $2\frac{1}{4}$  inches; length,  $3\frac{1}{2}$  inches; thickness,  $1\frac{1}{4}$  inches; greatest circumference, 9 inches. It was composed of uric acid, with one end covered with a half-inch coating of phosphates. The patient, a young man, 21 years of age, made an excellent recovery, and returned to his home in Syracuse, in the State of New York.

DR. WOOD exhibited a man with only one leg, the tibia of which, he thought, had had a piece knocked off by the man's having fallen on a shovel.

DR. HY. HOWARD said it was difficult to be sure, as everything was healed up, and there was no other leg to compare it with.

DR. ALLOWAY related the history of a case which he stated was of more interest from its extreme rarity than of serious importance to the patient. The patient, a young married lady, mother of two children, youngest about four years of age, consulted him about one year ago concerning a pain in her right side, backache, and general decline in health. On making a vaginal examination in Sims' position, a large cyst-like, bluish body occupied the whole of the posterior fornix space, and so overlapped the vaginal portion of the cervix and os uteri that it was with difficulty the cervix and os could be at first discovered. The cyst proved to be purely submucous, and its fluid contents separated the mucous membranes from the submucous tissues from a point extending from the os up the posterior surface of the vaginal cervix, and down a short distance on the posterior vaginal wall. At this time there was a slight catarrhal

condition of the cervix, but no evidence of there having been ulceration or previous attack of pelvic inflammation. He kept the patient under observation for nine or ten months, and observing no change having taken place in the cyst during that time, concluded that it probably resulted from injury incurred during the last confinement, and had existed ever since. From its size and position, it was quite possible for it to have acted as a bar to conception during all this time. A piece of the wall of the cyst on the cervix was removed with the scissors, and about an ounce of greenish, limpid serum escaped. The fornix and vagina were packed with cotton, and the patient kept in bed for a week. There is a slight discharge of serum yet, and it may require, at some future time, brushing over internally with iodine or other irritant to complete the obliteration. The abnormal symptoms complained of at the time by the patient have disappeared. Dr. Alloway exhibited a diagram showing the position of the growth, and said he had never met with a like condition, nor had he been able to find such an one recorded.

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*Stated Meeting, January 23rd, 1885.*

T. J. ALLOWAY, M.D., FIRST VICE-PRESIDENT, IN THE CHAIR.

PATHOLOGICAL SPECIMENS.

*Broncholiths.*—DR. SMITH showed two small calcareous masses about the size of half peas which had been expectorated by an old man having senile catarrh. He has been expectorating four or five of these daily for the past eight or ten years.

DR. BELL said he thought these little masses may have come from calcareous bronchial glands similar to some he has met with in the post-mortem room of the General Hospital.

*Large Tonsillary Calculus.*—DR. SMITH removed this from a boy aged 10 years. It weighed forty grains and measured 2 by  $1\frac{3}{4}$  inches.

DR. BELL said he had removed a calculus from Wharton's duct which had caused so much inflammation as to mislead some other doctors into believing the patient had malignant disease.

*Uterus with Fibroid Tumor; Tait's Operation.*—DR. TRENHOLME exhibited the specimen and related the case. The uterus was removed post-mortem from a woman aged 30, upon whom he had performed Tait's operation on the 7th of this month. She had suffered for years with pain on the left side and dysmenorrhœa in spite of all treatment. An examination revealed a uterine fibroid of the left side, with an enlarged ovary, and the parts about were thickened. Before the anæsthetic was administered, a hypodermic injection of  $\frac{1}{2}$  grain of morphia and 1-1000 of atropine was given. The operation was a difficult one. There was an inch and a quarter of adipose tissue before the sheath of the rectus was reached. When the hand was got in, a membrane was felt, which was perforated by the fingers. The right ovary, twice its natural size, was first removed along with the tube. It was much more difficult to get the left into view. It was removed (not enlarged), with but the fimbriated end of the tube. There was smart hæmorrhage, which was, after a time, controlled, and the wound brought together. Peritonitis set in twelve hours after. In forty hours it was thought there might be fluid, so the wound, which had healed completely, was opened, when five or six drachms of pus escaped. The wound was left open and the pulse improved for a time, but she died 76 hours after the operation. She had urinated naturally, but there had been no escape of flatus. She died from peritonitis and septicæmia. Drs. Armstrong, Wood and J. J. Gardner were present at the post-mortem. The uterus was found ante-flected, and on its left cornu was a small fibroid tumor.

DR. J. J. GARDNER, who performed the post-mortem, said there were the signs of a general peritonitis; pus was all over the intestines. Both sides of the omentum were adherent to Poupart's ligament. The perforation made by Dr. Trenholme was seen.

DR. CAMERON, who assisted Dr. Trenholme, said there were present evidences of previous inflammation, and that a great deal of handling and forcing were needed. The situation of the tumor and the adhesions made it difficult to sponge all the blood out. The fibroid tumor, from its situation, made it at first appear as if they had a double uterus to deal with.

DR. STEWART asked why a drainage tube was not used.

DR. TRENHOLME said he had never yet used one. He would have used it in this case, but thought it was not needed.

DR. STEWART said it was the practice for surgeons who do not use full antiseptic precautions to use a drainage tube. This patient died from suppurative peritonitis.

DR. HY. HOWARD asked if a surgeon would not be justified in staying his hand from proceeding further when so much difficulty and danger presented themselves.

DR. WM. GARDNER said that if adhesions contraindicated operation, only about half the cases operated on would be attempted.

DR. ALLOWAY remarked that this case showed how difficult it was to prevent sepsis in cases where old inflammations existed. The symptoms here tally with Emmet's views, viz., that the dysmenorrhœa is due to a parametritis.

*Ovarian Cysts from a case of Double Ovariectomy.*—DR. GARDNER exhibited the sacs of the two cysts removed by him from a woman aged 31, unmarried. They were of slow growth and began on the right side. The only distress had been pelvic pain. The right side of the abdomen was distended to about the size of an adult's head. The left tumor was the size of an orange, and the uterus lay between them. The first cyst was easily managed. It was much more difficult to get at the second, as it lay below and behind the uterus in Douglas' fossa, and was adherent to the uterus. It burst, and the contents being a tar-like fluid, it was not easy to remove it all. Warm carbolic acid solution was used, but did not dissolve it. The fluid in both cysts was of a dark-brown color, from old hæmorrhages into them. A glass drainage-tube was used. Patient died the third day of peritonitis. No pus escaped till the very last. About two ounces of bloody serum came away each day. The operation was performed under strict antiseptic precautions. It is the experience of all that long operations are very fatal. Sir Spencer Wells' percentage of deaths in double ovariectomies is 34.15. Mr. Lawson Tait's figures give a better shewing.

DR. ALLOWAY exhibited a *decidual cast of the uterus about twenty days old*. The points of interest were the distinctness

with which the embryo-formation could be seen through the membranes, and the formation of the decidua reflexa as it arched over the ovum-sac, but which had not been quite completed, leaving a transparent facet looking towards the interior of the uterus, and through the membranous walls of which the embryonic cell-formation could be distinctly seen. Dr. Alloway drew attention to the evidence this specimen bore towards the correctness of Cost's views in regard to the formation of the decidua reflexa.

#### A LOCAL ANÆSTHETIC.

DR. LAPHORN SMITH read a paper on the use of a mixture of about equal parts of chloral hydrate and camphor as a local anæsthetic. He stated that when placed in the solid form together in a bottle they soon produced a clear, thick liquid, which, when applied on a piece of lint, covered with oil silk, to a painful surface, complete analgesia resulted. He reported three cases in which he tried it with good success. The first was a whitlow of the finger, which the patient refused to have opened. Shortly after applying it the pain disappeared, and three days later it was lanced and the pus let out without the patient, a young lady, experiencing any pain whatever. The second case was a very painful bubo, which completely disabled the patient, a gentleman, from doing his work. The mixture of chloral hydrate and camphor was applied frequently on a piece of lint, with the result that a few hours after the first application he was so much relieved that he returned to his duties next day, and fluctuation becoming evident a few days later, it was opened, the operation causing only about a quarter of the usual amount of pain. The third case was an operation for the removal of a large sebaceous cyst of the face, which was removed after the frequent application of the local anæsthetic for several hours previously by means of a brush. The incision in the skin was almost painless, but it produced no effect upon the deeper structures to which the cyst was firmly adherent. The action of the anæsthetic is much less marked on healthy than on inflamed and painful skin.

DR. REED was familiar with the compound. G. E. Saunders

of Montreal had shown that this is a simple mixture of the ingredients, and not a true chemical compound. Dr Reed would suggest the solution in chloroform as a topical application.

DR. STEWART had used a mixture of chloral and camphor for neuralgia, but now uses menthol.

DR. GURD has found an ointment made by mixing half a drachm each of camphor and chloral hydrate to one ounce of lard of great benefit in pruritus.

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### Extracts from British and Foreign Journals.

Unless otherwise stated the translations are made specially for this Journal.

**Jacobi on Bacteriology.**—Ptomaines are often met with in the presence of bacteria. Is it the latter which produce them? Do they so decompose the albumen of the tissue that a ptomaine must or can develop? Or is it their own vital change which produces it? Most modern writers—not chemists—believe it. But if the cause of decomposition of the living or dead be not bacteria, but a chemical poison, after all, is it necessary to assume that the poison cannot form except through and with the presence of bacteria? And is the bacterium the only poison? or the only source of the poison? If deadly poison, such as we know to destroy life suddenly, or almost suddenly, and of such virulence as is reported in what was formerly believed to be legendary only, but which may be historical, will almost invariably originate in the dead body, is it so impossible that it may develop in the still living under certain circumstances? Have we not had enough yet of the monthly instalments of new bacilli which are the invariably correct and positive sources of a disease, and replaced by the next man who comes along? Have we not enough of the statements that, as for instance, several bacilli are claimed each to be the only cause of diphtheria, by several observers, that there may be several distinct bacilli, every one of which can produce the same scourge? Is it not just as safe still to presume that, when several forms of bacilli are believed to be such sole causes, that the real cause is in neither? Exactly so, neither

in one nor in the other, notwithstanding it all appeared settled. For our journals are replete with the latest authentic bacterium of diphtheria. This time it is neither Klebs nor Eberth, but Loeffler. Reports, discussions, and even editorials, carry his name over the world. The very nature of diphtheria is said to be revealed again, as several times before; still the discoverer admits that there are cases without the bacterium. The matter is becoming ludicrous. I begin to fear something like the rebellion against piano-playing in a large European city. Is not music a godly art, and the piano a blessing to the musician? But the playing of fifty thousand beginners in a large city is a nuisance. When bacterio-microscopy in the hands of beginners becomes noisy like piano-playing—noisy in books, pamphlets and journals—a gentle protest is permissible. That protest is not meant for the masters, who know how to wait and to mature. I do not speak against Robert Koch and his peers, who all of them are more modest than his followers. When the kings build the cartmen are kept busy—and boisterous.

A dozen years ago the coccus of whooping-cough was said to be discovered. There was no doubt about it. There was whooping-cough, there was a coccus, what was plainer and more conclusive? To cure whooping-cough nothing is required but to kill the coccus. Quinine will kill a coccus, quinine cures whooping-cough. Since that time there is no more whooping-cough in existence; or, if a case would be malevolent enough to turn up, it could not last longer than until a few whiffs of quinine can reach it. That is ludicrous, is it not? But it was preached like gospel, and it was believed. Many more such have turned up, and will turn up for coming years to smile at. There is a peculiar feature in this bacteriomania. Its principal impetus it received in Germany at a time when great changes had taken place in its political and financial affairs. All at once there was an empire, of which historians so much spoke, youth so much dreamed, romancers so much fabulated. All at once, at the same time and a decade before, an unusual industriousness, commerce, enterprise and unwonted wealth, and still more expectations than wealth; all at once an influx of five thousand

millions of francs, not earned by honest work, but conquered by war, which could not turn the poor heads and unstable the solid foundations of regular development. From that time dates the lack of safety and steadiness in German financial circles. They have even invented a name for that period of swindling, "gründerthum." Speculation was rife—fortunes were made in a day from nothing but self-assertion and daring, and lost as quickly. The moral and intellectual atmosphere created by these tendencies is never breathed by one class of people only. If self-assertion can make a fortune in finance, why not in science? If a reputation may perhaps be made by a stroke of chance, why not try that chance? Speculation was rife. Any young man can look through a microscope, perhaps he will draw the prize in the lottery of alleged science. Looking would be all right, if he would not write. Medical life would be easier if there were less journal articles containing the latest infallible discoveries. Thus it has come to pass that German medicine has a two-fold aspect now-a-days. The days of her superiority are not over yet, her greatest men still live, and the toiling thinkers are at work, but the number of speculators is immense. A great many of the articles printed in the journals of the last ten years have been prematurely published, the number of preliminary notices announcing discoveries under way is very large. The great embryo cannot wait. He is afraid of having his celebrity snatched away from him by the next-door microscopist. Thus it is that we often find a difficulty in keeping our eye on the great lights, whose rays are always welcome. If learned and thoughtful specialism has its justification anywhere, its field is the solution of the mooted questions alluded to. Thus far I claim, however, that in regard to bacteriology, the main questions are before the medical world still. I firmly hope the Academy will prove the centre of critical researches by which the problem, whether bacteric or chemical poison, still a mystery, will be carried nearer its solution.—*Medical News.*

**Dr. H. C. Wood on Treatment of Bronchitis.**—It is not generally known that alkalies in large doses are amongst the most efficient of sedative expectorants. The citrate of potassium is much the most eligible for adminis-

tering alkaline expectorants ; of it half to one ounce should be given in 24 hours. The following prescription has been tested during four to five years, and found to be much the most reliable and sedative cough mixture that I have ever used:—**R.** Citrate of potash, one ounce ; lemon-juice, two ounces ; syrup of ipecac, half ounce ; syrup enough for six ounces. Dose—Tablespoonful four to six times a day. When there is a good deal of cough or any excessive susceptibility of the bowels to loosening medicine, paregoric should be added in small quantity. The ipecac should be varied according to the susceptibility of the patient's stomach. Sometimes it can be advantageously substituted by tartar emetic. Usually two to three days of such medication will establish free expectoration. Then the stimulant expectorants are required, or squills and seneca, the former being the more valuable, though I cannot affirm that I have obtained positive results from their use, and think much of their reputation is based upon tradition and natural tendency of the disease to subside. Even squills is inferior to the mur. of ammonia. Like all ammoniacal preparations, this must be given at short intervals to maintain constancy of effect. The action of the single dose can scarcely last over two hours. Its acidity and disagreeableness may be somewhat covered by glycerine. In very large amounts all ammonia salts are capable of acting on the crisis of the blood as alkalis, and causing great vital depression. The value of copaiba in chronic bronchitis has been long recognized, and it may sometimes be used with advantage in obstinate subacute bronchitis. When the "cold" in children is obstinate, "syrup of garlic" is very efficacious. But the stimulant expectorant which in my hands has almost replaced others of the class is the oil of eucalyptus. It may be administered in ordinary cases of adults to the amount of about forty minims a day. Its taste is so pre-eminently disagreeable that it should be given in capsules, each of which may contain ten minims ; or, if the patient prefer, two capsules of five minims each may be taken at a dose. The oil appears to be slowly absorbed and eliminated, so that four times a day is often enough. In emulsion it is very apt to cause unpleasant eructations, but in capsules is usually well borne. Some stomachs will not tolerate it. Counter-irritation is very useful ; the oil of amber, an old remedy, is especially valuable in young children who have so often marked nervous disturbances and a tendency to collapse, diluted with one to three parts of sweet oil, applied to chest upon saturated flannel ; it sometimes acts very happily in allaying nervousness as well as internal congestion.—*Ther. Gaz.*

CANADA

# Medical and Surgical Journal.

MONTREAL, MARCH, 1885.

## RESUSCITATION AFTER APPARENT DEATH.

The exact period that must elapse, after apparent death from drowning, chloroform or ether poisoning, hæmorrhage, &c., when hope of resuscitation is no longer possible, has never yet been accurately determined. Circumstances, such as surrounding temperature, conditions of blood, air passages, &c., would render each case somewhat different. Of course after decomposition has set in there is no room for further hope. The question is, what early change takes place, after the cessation of respiration and circulation, which prevents life being restored, and how can we detect that change? In other words, when is death apparent and when real? This question has never been satisfactorily answered. Cases of trance, asphyxia and syncope frequently so closely resemble real death as to deceive medical men. Again, there are on record well-authenticated cases of apparent death brought about by effort of the will, as, for instance, the case, quoted in all works on forensic medicine, of Col. Townshend, who could, by an effort of the will, become apparently dead for periods of upwards of half an hour, thus showing that after the cessation of circulation and respiration the "vital centres" do not perish immediately. Regarding resuscitation after apparent death, a remarkable statement is made by a Mr. G. A. Armitage of Denver, Colorado, in the *Scientific American* of the 7th of February last. The statements are so remarkable, and the cases detailed so devoid of that scientific accuracy which we look for in experiments having results so startling, that we, on reading them, strongly suspected a hoax like that which emanated from Australia some years ago

with regard to keeping animals frozen for months and revivifying when required. The experiments are as follows:—

A small terrier dog was bled to death, and exhibited all the signs of death, such as glazed eyes, rigor mortis, &c. He was then left for three hours in a room having a temperature of 70°F. At the end of that time he was placed in a warm bath (105°), and “was continually and thoroughly rubbed” and half a pint of hot water injected into his stomach; artificial respiration was then practised by means of a bellows working through a tube placed in the trachea; blood was now taken from a large Newfoundland dog and transfused into some bloodvessel (not specified) of the dead dog; when a pint of blood had been transfused, the eyes began to look brighter, soon a tremor passed through the dog, and he gasped. Artificial respiration being still continued, the dog struggled and soon began to whine (the tube in the trachea being removed), and in 22 minutes after the first blood was injected he sat up, soon drank broth, and walked about. He was running about the streets in two days, and when the article was written was in “rugged health.”

The next experiment was made on a calf six weeks old. It was bled to death and left for *twelve hours* before attempts were made at resuscitation. It was then treated in the same way as the dog, and after 35 minutes was completely restored and drank some milk.

The third experiment is more remarkable still, and it seems as if the experimenter was testing the amount of credulity his readers were capable of by grading the improbability of his stories. A dog was forced under water and drowned, then laid in a warm room for four hours, with his head down to drain off the water; he was then rubbed whilst in a warm bath for an hour, his veins being opened in three places to allow any blood to escape. Then transfusion was performed, and “after fifty minutes’ anxious labor, the poor beast whined piteously as life was once more being enthroned within him,” and eventually completely recovered.

The fourth case is that of a dog which was first strangled and then frozen, but the experimenter has not the courage to tell his readers that he succeeded here in restoring life, but relates how,

after four hours labour, the case was given up as hopeless. The dog was, in truth, dead. Mr. Armitage throws out hopes, however, that he will yet succeed in restoring frozen animals to life.

In a letter to the editor of the *Scientific American* following the article, Mr. Armitage mentions a fifth case of a dog which had been bled to death on January 21st and restored after eighteen hours. He wishes, he says in conclusion, to have these experiments repeated by others and his own work corroborated. The addresses of the individuals owning the dogs and calf are given at the end of this incredible article, and it says on application the animals will be shown to visitors.

Almost at the same time as these experiments were published, Mr. C. E. Jennings, F.R.C.S., of London, reports (*Lancet*, Feb. 1885) a series of experiments which he had lately performed at Ghent to demonstrate the feasibility of restoring to life animals poisoned by chloroform by transfusion of blood and saline fluid. The experiments number 17, and each is given in detail. By these experiments Mr. Jennings has proved that by using artificial respiration, depleting the apparently dead animal, and injecting blood or a saline fluid, artificial circulation can be established, and life be saved nearly three minutes after apparent death. Further, if ammonia be exhibited prior to the administration of chloroform, life may be saved if the injection of saline fluid be made eight minutes after cessation of the pulse, and six minutes after cessation of respiration. In one case life was restored fifteen minutes after apparent death, but the animal subsequently died. Mr. Jennings deals with minutes where Mr. Armitage deals with hours. The principle of restoration is much the same with each, viz., depletion, artificial respiration, and transfusion. The practical points taught by Mr. Jennings' experiments are: 1st, Before giving any anæsthetics, to administer a full dose of sal volatile to preserve the fluidity of the blood in case of death. 2nd, If depletion and intra-venous injection be performed quickly, after apparent death, before coagulation of the blood has commenced, pulsation will be restored, and the patient's life will be saved.

To our readers we leave the task of drawing their own deductions from the remarkable experiments of Mr. Armitage. We ourselves await further light on the subject.

—This year's lenten lectures at the Royal College of Physicians were opened on Thursday by Dr. Osler of Philadelphia, who chose for the subject of his Gulstonian Lectures the fascinating disease known as Ulcerative Endocarditis. His first lecture was devoted to the naked eye and microscopic pathology of the affection, its clinical history and etiology being left for discussion in the lectures to be delivered on Tuesday and Thursday in next week. Dr. Osler, however, began by suggesting that, instead of the numerous classifications which had been suggested, cases of the disease should only be divided into simple and malignant. After describing the naked eye appearances and favorite situations of the vegetations and ulcerations characteristic of the disease, as deduced from an analysis of 200 cases, the lecturer proceeded to demonstrate their microscopic features, showing the vegetations to be mainly composed of a granular mass of micrococci, seated upon a layer of neoplastic segments, and capped by a layer of fibrine derived from the blood current. His own specimens inclined him to the view of Klebs, that the micrococci gain access to the endothelium directly from the blood. This part of the lecture was illustrated by numerous pathological preparations, photographs, and microscopic sections. The lecturer, after mentioning that the right side of the heart is rarely affected—viz., in only nine out of the 200 cases—proceeded to describe the secondary phenomena of the disease in other organs of the body. Amongst them he drew especial attention to the occasional occurrence of suppurative meningitis, which was met with in 25 of the 200 cases. The spleen and kidneys were the most common seats of infarcts, the intestines and stomach less frequently, while the lungs were not often affected except when the ulcerative lesions were in the right heart. The lecture was mainly extempore, lasted the ideal 45 minutes, and was unusually well attended. Dr. Osler, as might have been expected, was most cordially greeted, and there can be no doubt that his lecture was such as was well worth while his coming across the water to deliver.—*Medical Times*, Feb. 28.

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—The Royal Medical and Chirurgical Society held its annual meeting on Monday, the 2nd inst. We believe it has been arranged to hold a discussion on "Cholera," commencing on March 24th, the debate to be opened by the President, Dr. Geo. Johnson. Drs. Klein and Gibbes, the members of the

late Cholera Commission to India, will likely take a prominent part in the proceedings.

—Alderman Gray, the well-known and energetic druggist, has been appointed chairman of the Board of Health. We congratulate him upon this mark of the estimation in which he is held. There is no doubt that this year, of all others, much will be expected of our sanitary authorities, and we firmly believe that the citizens will not be disappointed in looking to Alderman Gray for the inauguration of a new era in the working of the Board. Radical measures of reform are necessary, and these we shall hope to see begun without a day's delay.

—The final section of Prof. Ziegler's text-book on Pathological Anatomy has just appeared, and Dr. Macalister's translation will also doubtless be shortly forthcoming. The division includes sections on the eye and ear, on the bones and joints, muscles, and male and female generative organs, as well as the mammary gland.

—The *Index Medicus* has ceased publication. Sufficient support could not be obtained to place it upon a paying basis. The loss of this valuable periodical will be felt by everyone requiring references to the current medical literature.

—John Marshall, F.R.S., F.R.C.S., who delivered the last Hunterian oration on February 14th, has resigned the chair of Surgery at the College and the post of Surgeon to the University College Hospital.

—W. D. Oakley (McGill, '79,) was admitted a member of the Royal College of Surgeons on the 30th of January last.

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### Obituary.

DR. BRAITHWAITE.—The death is announced of Dr. W. Braithwaite of Leeds, in his 78th year. His name is more particularly associated upon this side of the Atlantic with "The Retrospect of Medicine" which he commenced to publish in 1840.

PROF. LOUIS ELSBERG of New York—was one of the earliest laryngoscopists and teachers of that branch in New York, and his reputation in his own department stood deservedly very high. Dr. Elsberg was well known in Montreal, and was a favorite with our local physicians as a consultant in throat cases. His last visit to Montreal was during the late meeting of the British Association, at which time he took part in the discussions of the Canada Medical Association.

### Medical Items.

—It is said that Dr. Koller, the discoverer of the anæsthetic properties of cocaine, has recently fought a duel. His antagonist, one of Billroth's assistants, received a wound that may prove fatal.—*Boston Med. & Surg. Journal.*

—Dr. Carl Seiler, Lecturer on Diseases of the Throat, University of Pennsylvania, Philadelphia, Pa., says:—"I have used the preparation called BROMIDIA, as manufactured by Battle & Co., of St. Louis, both internally and locally by means of a spray, in cases of throat affections, and found it admirably suited to certain cases."

—Prof. Dr. R. Fresenius of Wiesbaden, Germany, has made an analysis of Mellin's Food for Infants and Invalids, of which the following is a summary:—

Total Carbohydrates .....	72.56
Albuminoids .....	9.75
Salts .....	4.37
Moisture .....	13.32
	<hr/>
	100.00

Starch and cane sugar, none; reaction, alkaline.

A copy of the detailed analysis and remarks of this first chemist in the world may be had by application to Messrs. Doliber, Goodale & Co., 41 and 42 Central Wharf, Boston, Mass.

**TREATMENT OF CHOLERA.**—In view of the possible visit of cholera to this country during the present year, any contribution to medical literature bearing upon the treatment of this disease should receive careful and earnest consideration on the part of the medical profession. By the researches of Dr. Koch, it is now known that acids are most useful to kill the cholera microbe, and have been successfully employed by the profession in Europe. Dr. Chas. Gatchell, of Chicago, in his "Treatment of Cholera," says:—"As it is known that the cholera microbe does not flourish in acid solutions, it would be well to slightly acidulate the drinking water. This may be done by adding to each glass of water half a teaspoonful of Horsford's Acid Phosphate. This will not only render the water of an acid reaction, but also render boiled water more agreeable to the taste. It may be sweetened if desired. The Acid Phosphate, taken as recommended, will also tend to invigorate the system and correct debility, thus giving increased power of resistance to disease. It is the acid of the system, a product of the gastric functions, and hence, will not create that disturbance liable to follow the use of mineral acids."