

## Technical and Bibliographic Notes / Notes techniques et bibliographiques

The Institute has attempted to obtain the best original copy available for scanning. Features of this copy which may be bibliographically unique, which may alter any of the images in the reproduction, or which may significantly change the usual method of scanning are checked below.

L'Institut a numérisé le meilleur exemplaire qu'il lui a été possible de se procurer. Les détails de cet exemplaire qui sont peut-être uniques du point de vue bibliographique, qui peuvent modifier une image reproduite, ou qui peuvent exiger une modification dans la méthode normale de numérisation sont indiqués ci-dessous.

- Coloured covers /  
Couverture de couleur
- Covers damaged /  
Couverture endommagée
- Covers restored and/or laminated /  
Couverture restaurée et/ou pelliculée
- Cover title missing /  
Le titre de couverture manque
- Coloured maps /  
Cartes géographiques en couleur
- Coloured ink (i.e. other than blue or black) /  
Encre de couleur (i.e. autre que bleue ou noire)
- Coloured plates and/or illustrations /  
Planches et/ou illustrations en couleur
- Bound with other material /  
Relié avec d'autres documents
- Only edition available /  
Seule édition disponible
- Tight binding may cause shadows or distortion  
along interior margin / La reliure serrée peut  
causer de l'ombre ou de la distorsion le long de la  
marge intérieure.
- Additional comments /  
Commentaires supplémentaires:

Continuous pagination.

- Coloured pages / Pages de couleur
- Pages damaged / Pages endommagées
- Pages restored and/or laminated /  
Pages restaurées et/ou pelliculées
- Pages discoloured, stained or foxed/  
Pages décolorées, tachetées ou piquées
- Pages detached / Pages détachées
- Showthrough / Transparence
- Quality of print varies /  
Qualité inégale de l'impression
- Includes supplementary materials /  
Comprend du matériel supplémentaire
- Blank leaves added during restorations may  
appear within the text. Whenever possible, these  
have been omitted from scanning / Il se peut que  
certaines pages blanches ajoutées lors d'une  
restauration apparaissent dans le texte, mais,  
lorsque cela était possible, ces pages n'ont pas  
été numérisées.

CANADA  
MEDICAL & SURGICAL JOURNAL

**NOVEMBER, 1881.**

Original Communications.

INTRODUCTORY LECTURE, MCGILL UNIVERSITY.

SESSION 1881-82.

By F. BULLER, M.D., M.R.C.S., ENG.,

Lecturer on Ophthalmology in McGill University; Attending Physician to the Ophthalmic and Aural Department, Montreal General Hospital.

In every human life, I suppose, there are a few days fraught with a consciousness of the supreme importance, provided the holder of it retains it long enough to understand and appreciate the responsibility involved in the mere possession of life, mind, and soul. I am not here, however, to discourse upon the meaning and significance of these three wondrous monosyllables, each one of which has from the beginning, and will to the end of time, transcend the limits of human understanding. Thanks to the Faculty of Medicine of McGill University, my task is of a lighter and more agreeable nature. It is to bid the Class of 1881-82 a most hearty and cordial welcome, to wish each individual member success in the arduous work he is about to enter upon, and to assure each and all that they have the entire sympathy of, and will receive every encouragement and assistance that can possibly be rendered by, the teachers to whom they have entrusted the all-important function of guiding them for a time in their future studies. This, I believe, is for most of us the anniversary of one of those "red-letter days" to which I have alluded. For some it recalls the fading memories

of the past ; for others its associations seem so fresh as to blend with the busy throng of current events ; to a smaller number it wears the charm of a new and not unpleasant experience. Happy are they who can look back to this, the very threshold of their career, without regret, and I will take upon myself to tell you who they are. They are the men who have started with a firm resolve to uphold the honour and good name of the profession whose ranks they have joined, and have never swerved from their purpose. They are the men who have had the strength to practice self-denial in their youth, and devote all their time and all their energies to earnest work. These are the sure foundations upon which success in life must be built. To the lack of such foundations we may trace the shipwrecks on the sands of time that are strewn on every side. Which of us is there, indeed, who cannot recall instances of blighted prospects and wasted lives in men whose early days gave promise of a prosperous and honourable future. And if we look for the causes of the disaster, we shall find they can be traced to a non-observance of the golden rule just mentioned as the secret of success.

To the young man just entering upon his course of medical studies, full of life and vigor and sanguine hopes, four years may seem a long time in which to accomplish the purpose he has in view. Some of his older schoolmates, no more intelligent than himself, have perhaps recently passed through the ordeal and, now exulting in the possession of a handle to their names, are objects of awe and veneration to their quondam associates. Be not thus deceived : the time is all too short for the work in hand. Twelve months later the most sanguine among you will freely admit I am not exaggerating when I say that if the time were twice as long there would still remain much more to learn than was ever dreamt of in your philosophy. How bitter then will be the regret if that year is wasted in idleness or pleasure taking. If any of you think to have an easy time for the first year or two, my advice would be either to abandon the fond illusion or to seek some easier route to fame and fortune. Remember always there are a dozen Professors to confront you,

armed with a sum total of about a hundred dozen lectures, loads of puzzling questions, and reams of examination papers. There are weeks and months of patient toil in the laboratory, in the dissecting-room, and in the wards of the hospital; there are ponderous volumes of chemistry, anatomy, physiology, and materia medica to be stamped almost word for word upon the tablets of your memories, mere outworks as it were to the stronger fortresses of medicine and surgery. Remember that each will be judged by his merits without fear or favor, and that by men who have learned to know almost your inmost thoughts. As you become more or less familiar with each subject in turn, you will discover that each professor seems to regard his own subject as the one of paramount importance. This may be a weakness of human nature, but right or wrong it is always met with in every institution where knowledge is imparted by routine teaching. It is just possible that sometimes this peculiarity may be too distinctive a feature, and lead to spending more time over certain studies than would be the case if we could have everything equally balanced in the order of practical necessity. For my own part, knowing as I do the immense amount of work to be gone over in our medical curriculum, I should think twice before asking a student to crowd his overwrought brain with the thousand details that can be of no future use and are only crammed into the head for purposes of examination, to be studiously and resentfully forgotten as soon as it is over. There are myriads of important facts that should be stored away for future use, and these are what every student wants to grasp and retain. When the corn is cheap and plentiful who would be burdened with husks? If I were to have my student life over again, I think I could learn more in less time by searching more carefully for leading principles and striving to associate ideas. It is thus that knowledge can be retained and made available at a moment's notice when suddenly called for. Most of you will ultimately be thrown upon your own resources, and will find the physical welfare of many fellow-creatures depending upon your skill and knowledge. Most of you will become enrolled in the ranks of general practitioners,

a set of men who may have their failings and short-comings, but who, on the average, are entitled to the respect and admiration of their fellow-beings. If we take the two or three thousand general practitioners constituting the great body of provincial medical men of this country, I doubt if it would be possible to find an equal number in any other class so industrious, so painstaking, and so worthy of esteem as these, often toiling day and night more for the love of doing good and for the sake of humanity than for the hope of pecuniary emolument. Where will you find any body of men who go through the same amount of worry and anxiety for so small a recompense? How few live the natural span of life! Worn out by unceasing labour or cut down by the hand of pestilence, striving to alleviate the sufferings of others when suffering most themselves, they fight the good fight to the bitter end, and we have reason to hope, receive at last their fitting reward.

Self-reliance with these men becomes a part of their very nature, without it they would be wholly unfit for the position they occupy; but to acquire this invaluable quality in its highest perfection they must have explored the whole field of medical science, and have learned to know something at least of all the ills to which human flesh is liable. Habits of accurate observation with a wide range of knowledge render these men equal to almost every emergency, and if they do not always display the grasp of detail that special study alone can give, who shall dare accuse them of ignorance or judge harshly of men who have done their best. Small wonder if mistakes are sometimes made in medical and surgical practice, when we compare ourselves with those who follow other callings. Just think of it. A man must serve five years' apprenticeship before he can be trusted to make a pair of shoes, and even then, of five hundred shoemakers, probably not five excel in their art. I might multiply similar instances, but a single sentence will suffice to express what I wish to convey. By constant practice only can the highest skill be attained. This is the true reason for the modern growth of specialism. Specialism in its best and purest form is a natural growth, and is only worthy

of the name when it receives the sanction and approval of those who are best able to judge of its merits. The specialist who cannot command the respect and esteem of his confrères in the general profession is not fit for his calling; but to attain this distinction something more than a mere newspaper announcement is necessary. In addition to a thorough course of medical training, there should be a special aptitude for the particular work to be done; then long years of patient labor and a vast clinical experience of a certain kind are essential in the education of the specialist who desires to gain a lasting reputation. The extraordinary literary activity of the present day requires all the spare time even of the specialist to keep *au courant* with what is being done in his own department. I can vouch for the correctness of this statement, at least as far as the specialty which I have the honor to represent is concerned, and I have little doubt those engaged in other departments can say the same. Moreover, a knowledge of several modern languages is almost indispensable if one would keep abreast with the tide of progress. The fact that diseases of particular organs are usually more or less connected with, and dependant upon, derangements of other portions of the economy involves the necessity of a tolerably intimate acquaintance with general pathology and therapeutics, and it often falls to the lot of the specialist to supply valuable information in the diagnosis of diseases not strictly within his own province. Taking all these circumstances into consideration, there should be, and I feel confident the time is almost at hand when there will be, no antagonism between the thoroughly trained specialist and the general practitioner. On the contrary, they are natural allies and by combining their knowledge they can not only benefit each other but often render the most invaluable services to their clients.

I do not wish to convey the impression that the specialist should claim the right to treat every case of disease that occurs in the part of the body he is supposed to know all about. Such a claim would, indeed, be unjust and absurd, and with the multiplication of specialties now recognized would leave the general practitioner

almost nothing to call his own ; such a state of things would, of course, be intolerable, and would lead in the end to the most disastrous consequences. For my own part, I should rejoice to see a much more widely diffused knowledge of ophthalmology and otology than at present obtains. Time and again I have been told by well-educated and successful practitioners that they know nothing about diseases of the eye and ear. I am always pained and grieved to hear such a confession. Surely there is something wrong with the system of education that sends men forth by the thousand, so badly prepared, into regions where they *must* treat diseases of these organs, however ignorant they may be of the subject. Surely the organs which represent the two most important of the five senses, which are the most exquisite pieces of mechanism in the animal economy, the avenues through which almost all knowledge is gained, and the source of nearly all the pleasure of life, are worth knowing something about. What, then, can be the reason of this lamentable, this deplorable want of knowledge ? It is simply this : The subjects have not been made compulsory in the medical curriculum, and most students will not study anything that does not aid them to pass their examinations. I do not blame them for this, but I know full well how keenly the deficiency is felt in after years. For some reason, which I cannot exactly define, there seems to be an idea abroad that the study of the eye and ear is too intricate and too difficult for the student to undertake. I should like to dispel this illusion, and I think I shall succeed in doing so if you will pay attention to what I am going to say :

I have no hesitation in asserting, most emphatically, that with the exception of a few points, which may safely be left to the specialist, there is really nothing either in ophthalmology or otology which cannot be readily or speedily mastered by an ordinary student during his term of pupilage. The great majority of all diseases of the eye, including most of those which commonly impair or destroy vision, are of an external character, and far more easy of diagnosis and treatment than are the diseases of the internal organs of the body. A glance at the report of the ophthalmic out-patient department of the Montreal General

Hospital, for the past year, affords a good illustration of this point. Among the total of 834 eye-patients, there were only 86 suffering from affections which could not have been diagnosticated with certainty by simple external inspection, with or without the aid of focal illumination; and of these 86, sixty were cases of error of refraction or defect of accommodation. There remain only 26 cases requiring a knowledge of the use of the ophthalmoscope to establish the diagnosis. That is about three per cent. of the entire number. In view of these facts, I say it would be idle to pretend that students are justified in neglecting the study of eye diseases on account of the difficulty of the subject. A still stronger case may be made out in favour of diseases of the ear, the vast majority of which belong to the so-called middle ear, and are associated with or dependant upon morbid conditions of the naso-pharynx, a region that every general practitioner is or should be competent to look after. The stumbling block here seems to be that only very few medical men provide themselves with the instruments necessary for examining and treating the parts affected; or if they have the instruments, they have not devoted sufficient time or attention to the subject to attain dexterity in their use, and yet there is not sufficient reason for this deficiency. Surely anyone who becomes skilled in the use of the vaginal speculum is quite well able to learn that of the aural speculum, and it is certainly not more difficult to learn how to manipulate the eustachian catheter than it is to acquire the knack of introducing the urethral catheter without occasionally making a false passage, an accomplishment I suspect rather rarely met with, even among surgeons of large experience. In any case the one thing necessary is constant practice, and for this there is plenty of material in the ophthalmic and aural department of our hospital, however it may be with the other instances mentioned. Anyone who learns to auscultate the heart and lungs can just as easily learn to auscultate the tympanic cavity, and the information thus obtainable is no less positive in the latter case than in the two former. I will go a step further, and risk the imputation of inculcating heretical maxims, by saying that in auscultation, for positive information the aurist has the advantage over his thoracic

brethren. It has been stated by competent authorities that the blind asylums of the world and the institutions for deaf-mutes are more than half filled by the victims of perfectly curable diseases, and that their misfortunes are the result of neglect or improper treatment. The statement, I am certain, falls far short of the truth in regard to the blind, and is probably not an exaggeration as applied to the deaf. The most prolific source of life-long blindness is the ophthalmia of new-born infants, a disease I have never yet seen cause loss of vision when properly treated. Scarlet fever occupies a similar position in causing deafness, simply, I believe, because the ears do not get proper attention during and after the ravages of this disease. If we add to the number who become totally blind or totally deaf from these causes an infinitely greater multitude who escape with but a sad remnant of sight or hearing, we have a picture of sorrow and suffering almost too painful for contemplation. I should occupy too much time for the present occasion were I to enter into particulars concerning the preventible sources of blindness and deafness, but I may be allowed to enumerate some of the things every general practitioner ought to understand, for if he do not understand those diseases that are of frequent and general occurrence, and consequently must be treated by him, he is ignorant of his craft by his own confession, and therefore unworthy the confidence of his clients. First and before all, he should learn not to meddle with what he does not understand, for it were better far not to treat a case of eye disease at all than to use injurious remedies, or to make an unsuitable use of good remedies. To know what should not be done is often the most valuable of knowledge. But as I have already stated the great majority of diseases of the eye and ear can and should be treated by the general practitioner. All the ordinary diseases of the eyelids and conjunctiva come within this category. The same may be said of the cornea and iris. I cannot emphasize too strongly the urgent need there is of a better knowledge of the morbid conditions of these two structures among the members of the general profession. I think I am not exaggerating when I say not a week passes but I see the disastrous effect of some terrible mistake made in the

diagnosis and treatment of these corneal and iritic diseases, mistakes I should feel ashamed of if made by any student who had attentively followed the out-patient ophthalmic practice of the Montreal General Hospital for the short period of one summer session.

There is one eye disease I cannot refrain from mentioning because of its infallibly destructive character if overlooked or neglected, and because I have almost never seen it recognized by the general practitioner at any stage of its progress; no, not even when the most striking symptoms proclaimed its existence more distinctly than words could describe them. Why it is that men who have learned to use [their eyesight and to know that two and two make four will persist in overlooking glaucoma in every instance, is more than I can comprehend. The one disease that most urgently calls for early recognition is the very one that seems to be never understood, and stranger still, the one disease that yields the most-satisfactory results to operative surgery, is the very one for which it is the most difficult to obtain the patient's consent to an operation. There are certain cases of eye disease and many cases of injury to the eye which should, I think, be relegated to the specialist for treatment. 1st, all cases in which the medical attendant is unable to make an accurate diagnosis. 2nd, all cases requiring difficult or complicated operations upon the eyeball itself. 3rd, all cases of severe injury to the eyeball, especially if the injury be of such a nature as to involve the risk of sympathetic ophthalmia. The latter disease being of so insidious and dangerous a character, its possible occurrence requires all the watchful attention that only a thoroughly skilled observer can give. Operative ophthalmic surgery now for the most part falls into the hands of the specialist, chiefly, I believe, because the public are alive to the fact that practice makes perfect, and have a peculiar horror of bungling operations about the eye. Still, I would not wish to deter any student from fitting himself for this sort of work, indeed I would be glad if they would all try to do so, and I feel certain that some would succeed, but I would suggest this caution: that no one ever should operate

upon the living human eye until he has had a large experience upon the cadaver as well as upon the lower animals. If this precaution had always been taken we should never have heard the sarcasm that "a man must put out a bushel of eyes before he becomes a skilful operator," for I am certain that with plenty of practice of the kind I have indicated anyone possessed of a fair share of natural dexterity can attain a very considerable degree of skill before touching the living eye. Another point of great importance is that no operation should be done except with perfect and suitable instruments. This of course implies the possession of a very considerable armamentum.

Much as lies in the power of the general practitioner to benefit his clients by acquiring a practical knowledge of diseases of the eye, I believe he can do even more for those suffering from the common forms of ear disease if he will take the trouble to give the subject an intelligent attention instead of pursuing the usual "laissez faire" policy of advising the patient to syringe the ear for every ailment that presents itself, or the equally unreasonable but more injurious practice of ordering oil and laudanum as a universal panacea for deafness and ear-ache. The first accomplishes nothing, owing to the fortunate anatomical ignorance of the public; the second does a great deal of harm twice for every time it does a little good once. It is in early life, in the catarrhal deafness of childhood or in the purulent inflammation of the exanthemata that the foundation of deafness is generally laid, and is because, forsooth, the aurist is called upon in at least two cases out of three to treat the results of ten or twenty years of neglect or mismanagement that his inability to afford relief brings down upon his devoted head the opprobrium of an ignorant and unreasoning multitude.

In an organ so inaccessible as the ear, and of such complex and delicate structure, it is too much to expect a restoration to health of parts that have undergone irrevocable morbid changes; but give us these cases in their early stages, or in early life, and we will show results more brilliant than in any other branch of medicine or surgery. If the subject were faced fairly and squarely by the medical profession, and the ear diseases of early

life treated on rational principles, therapeutic and hygienic, the makers of audiphones, ear trumpets, and artificial drums would have to seek some other and, let us hope, more honest means of earning a livelihood than that of imposing on the credulity of afflicted humanity. Much might be said on the relation between diseases of the eye and ear and the various other organs of the body. It is in this direction that most of the original work going on at the present time is being done, and though the tillers of the soil are numerous, the harvest has been abundant in the past, and bids fair to be prolific in the future. Since the fertile brain of the immortal Helmholtz gave birth to that simple and beautiful invention, the ophthalmoscope, the science of ophthalmology has passed from the ravenous clutches of mountebanks and quacks, and by the exertions and untiring industry of a few of the brightest minds of the nineteenth century it has attained the dignity of the most important specialty in medicine. It has cleared up some of the darkest and most difficult points in pathology. It has added many laurels to the art of surgery. It has held up the pure light of science for the guidance of the mystified physician groping hopelessly in the dark, and shown him the kidneys, the heart and the brain of his patient by illuminating the deep recesses of the fundus oculi. It is a source of gratification to me to know that each year adds a larger number of students to the list of those who take an interest in the study of ophthalmology, and it is especially gratifying to know there are some who go out into the world with a fair knowledge of the use of the ophthalmoscope. It is an art that can only be learned by the exercise of patience and perseverance; but when once acquired I am quite certain none ever begrudged the time and trouble it had cost.

In conclusion, gentlemen, I may say that, although much has been accomplished in every branch of modern medicine, there remains much more to be done. Remember always that upon each of you a portion of the future depends, and if you will let it be your aim in life to do all that lies within your power to make the next thirty years as bright an era of progress in the medical world as the past have been, you will have no self-

reproaches and no vain regrets when the sands of life have run so low that the task must be yielded to your successors just as those who are older must yield it to you.

---

## AN ENDEMIC OF PARAPLEGIA AMONGST CHINESE COOLIES.

By H. N. VINEBERG, M.D. (McGILL), WAIOHINN, SANDWICH ISLANDS.

During the past six months a peculiar disease has appeared among the Chinese labourers on the several sugar plantations of these Islands. The three plantations in this district, and which I attend, employ altogether about 300 Chinese, and fully 75 have been attacked by the strange affection.

The first cases occurred at the Naalcha plantation. Some seven or eight Chinamen one day dropped down in the field, and said they were unable to stand on their legs any longer. Within a week, 15 out of a total 60 were on the sick list with the same complaint. As I cannot find anything in my limited supply of medical books which treats of a similar affection, I had better, I think, give you first a description of a typical case, and afterwards state the variations I have observed.

The overseer notices a Chinaman suddenly drop in the field, and thinking him a "shirker," perhaps, gives him a kick and tells him to go to work. The Chinaman points to his lower extremities, and by gestures endeavours to make his task-master understand that it is they who are at fault. A medical examination, I am bound to confess, does not throw much more light on the subject, and is very unsatisfactory from the nature of the circumstances. The patient's walk is not unlike that of locomotor ataxia when the ataxic muscles are beginning to show signs of motor paralysis. The leg and foot are raised high, brought forward slowly and apparently with an effort, and the whole length of the sole touches the floor at once in completing the step. He walks with his legs wide apart. The muscles feel firm to the touch, and on being tightly grasped by the hand the patient calls out with pain. Tactile sensibility is not impaired, and reflex power is normal. Pain is first referred to the region of the knees

and afterwards vaguely to the thighs and legs, but most frequently to the calves only. The patient endeavours to indicate some sensation he experiences by digging the limbs with his index fingers partially closed, and which I take to be *pricking*. No pain whatever is referred to the spine, and hard knocks with the knuckles over the spines of the vertebræ elicit no cry of pain. Power over the sphincters of the rectum and bladder is retained to almost the very last. The bowels are usually costive; the appetite is good, and the tongue may be clean or slightly furred. The pulse is frequent from 90 to 110 per minute, and is rather small and compressible. The urine is clear, moderate in amount, and free from albumen. The case may terminate in one of three ways: death, recovery, or pass into a chronic state. In most of the cases ending in death, the paralysis rapidly extends upwards, invading the whole muscular frame, the muscles quickly atrophy, and the patient dies asphyxiated from paralysis of the respiratory apparatus. About 30 per cent came under this head, and in the greatest number of cases it took place between the third and fourth week. The superstitions of the Chinese about the dead is very peculiar, and I have only been able to hold one *post-mortem*. In that case the lungs, liver, kidneys, spleen, stomach and bowels appeared normal. The mitral valves were very thin and small, but showed no signs of inflammatory changes. The brain and cord were not examined.

Recovery takes place at a variable period, but most often in from three to four weeks, and is liable to be interrupted by several relapses, each of which last from three to four days. Finally, half of the cases have recovered. The duration of the chronic state I am unable to say, as some of the cases, among the first that occurred, at this day show no signs of an improvement or the reverse. The patients feed and sleep well; the muscles of the lower extremities have undergone no atrophy but the paresis remains. These, however, I think would soon improve if the plantation authorities carried out in full the course of treatment I have recommended over and over again. The following are some of the more important variations that I have observed. The attack does not always set in so suddenly

as stated above ; many complain for a day or two of pains in the legs before they give up work. In some cases there is complete paraplegia almost from the very beginning, and different from what one would expect ; these are not always the fatal cases. I have seen some of the very worst cases recover. Marked swellings of the legs I have noticed in several cases, but do not consider the swellings as typical of the disease. In some it is due to severe heart affection, in others to a feeble circulation. Quite a large number had a murmur either over the aortic or mitral valves. A few days before death very many patients point to their abdomen and say "all burning," or its correlative in the Chinese tongue. I have not been able to make any thermometrical observations—having had all my thermometers either broken or out of gear—but judging by the feel of the hand I should say that there was little or no elevation of the heat of the body in any of the cases at any stage of the disease.

What is the causation of the disease, one naturally asks ? Not an easy question to answer. Had it been an outbreak of scurvy there would be no difficulty in giving a cause. Here we have men living under conditions which are said and known to produce scurvy, and instead of swollen, spongy gums and purpuric patches we see paralysed lower extremities. The diet of the Chinese coolies on the plantations at the time of the outbreak of the disease consisted of rice, peanut oil, semi-putrified sausages and bad pork ; vegetables of any kind never entered into its composition. However difficult it may be to explain the effect from the cause, it is my opinion that the above-mentioned diet is the main factor of the disease. I shall briefly state the grounds upon which I have formed my opinion, and your readers can judge for themselves whether it is tenable or not. The common method of feeding Chinamen on plantations is to allow them so much rice and beef weekly, but in many instances they are given the value of the allowance of the latter in money with which they can buy whatever they please. Their tastes run in peanut oil, greasy sausages, tainted fish and bad pork, but their delight *par excellence* is peanut oil.

The first cases that came under my notice were at the Naalcha and Hilca plantations, where that system obtained. There were none as yet at the Pahaler plantation, the only one of the three that gave their Chinamen their beef rations fresh from the commissariat. But some time after, while one of the directors was on a visit to the plantation, the Chinese laborers petitioned him to have their beef rations exchanged for its value in money, which was granted to them. In less than three weeks from that date I had no less than thirty cases on that plantation. Again, as soon as the money system was put a stop to and vegetables added to the rations we had no fresh cases. Connected with the plantations are several small planters who plant corn on shares. These also employ chiefly Chinese coolies, who as a rule have always some vegetables which they grow themselves, and they got their rice and beef served out to them by the planters themselves. None of the planters' coolies have been affected by the disease. The treatment which I recommended was a generous diet into which vegetables—particularly cabbage—should enter largely, better ventilated and roomy quarters, and stimulants in those cases with a feeble circulation. Stimulating liniments to be well rubbed into the paralyzed limbs, and where the paralysis showed no signs of extending I gave strychnia and ordered the application of electricity. It is no more than just to say that where this course of treatment was followed out, even if only in part, there the per centage of the cases of recovery was the highest. Any one who has had medical charge of plantations in these Islands will fully understand the meaning of the last sentence.

Before concluding this already too long communication, I would like to refer to a recent outbreak of a similar disease in the interior of Japan, mentioned by Miss Bird in her book on the "Unbeaten Tracks of Japan." The disease is known by the name of *Kak'ké*, and in a village through which she passed it carried off 100 persons out of a population of 1,500 in seven months. "The first symptoms," she says, "are a loss of strength in the legs, looseness in the knees, cramps, numbness and swelling. This Dr. Anderson, who has studied *Kak'ké* in more than 1,100

cases in Tôkyô, calls the subacute form. The chronic is a slow numbing and wasting malady, which, if unchecked, results in death from paralysis and exhaustion in from six months to three years. Dr. Anderson describes a third or acute form in which the grave symptoms set in unexpectedly, and go on rapidly increasing." She then gives a graphic description in the words of Dr. A. of a patient in the last moments preceding asphyxia. "The opinion of the native doctors, as well as that of Dr. Anderson, is that the predisposing causes are bad drainage, dampness, over-crowding, and want of ventilation; the exciting causes the wearing of shoes, which are oftener wet than dry. In Tôkyô two hospitals were opened, in one of which native treatment is to be tried, and in the other foreign. It has been unusually bad of late in Tôkyô.

The predisposing causes of the endemic here, I should say, were: Chinese habits, masturbation, &c., over-crowding, and want of proper ventilation in the sleeping quarters. These latter on the plantations consist of long narrow buildings, along either side of which are arranged shelves or bunks two tier deep, much in the same way as in the fore-castle of a ship. Fifty or more are housed in a building 80 by 14 feet. I have put, as you see, Chinese habits at the head of the predisposing causes. May not the too-frequent congestion of the spinal column produced by these habits make *that* the weak point in the system and the first to suffer from bad food?

I regret that my communication is of so crude a nature, and that I am not able to present you with a fuller picture of the disease.

---

## THE PHARMACIST OF THE FUTURE.

By HENRY R. GRAY.

Nothing is so frequently insisted upon by writers on pharmaceutical matters as that pharmacists must, in order to live, combine with their profession various trades, such as fancy goods, brushes, soap, &c. Let us see if this implicit belief in a foregone conclusion is not to a great extent erroneous, and may, perhaps, have been one of the causes which has prevented pharmacy from assuming its proper rank in English-speaking countries.

We were told at the late Pharmaceutical Congress in London that pharmacists rank as professional men in France, Germany, Belgium, the Netherlands, Spain and Italy. In France it is necessary to obtain the degree of Bachelor of Science before commencing the study of pharmacy, and so far from there being any opposition to this on the part of pharmacists, Mr. Petit of Paris proposed the following resolution: "It is desirable that in all countries the literary studies required from the pharmaceutical chemist be the same as those required to obtain the diploma of a Doctor of Medicine." In speaking to his proposed resolution, Mr. Petit stated that "in France there were special institutions for the study of pharmacy, and it was well understood that the position of a first-class pharmacist (*pharmacien de la première classe*) was equal to a doctor of medicine, and he thought pharmacists in general should spare no trouble to attain the same position everywhere."

In England and America the very different relations existing between pharmacy and the State has been very unfavourable to the advancement of pharmacy, and, in addition, the paucity of the reward attainable in the end is a very decided check to every effort made in the direction of high culture. It cannot, however, be denied that there are branches of scientific work adapted to the attainments of the educated pharmacist which have been hitherto entirely neglected, and unless the pharmacist of the future directs his energy to the practice of these branches, men of culture will cease to enter the ranks of pharmacy, and will join those of other professions where more honour and profit is attainable. At all events, bad as things are elsewhere, a brighter day is dawning on the pharmacist in Canada, and our medical friends are opening their eyes to the fact that we are a necessity to them, and that well-educated pharmacists and well-stocked pharmacies are coadjutors not to be despised in the successful prosecution of the practice of medicine.

The pharmacist being, by his training at college and his practical experience, a skilled chemist, why should he not announce himself as a "consulting and analytical chemist"? He is better adapted and has more facilities for doing this work than most

other men. He has his chemicals and laboratory at hand. He has his clerks to do minor work, and to assist him generally. Without doubt, the physician would rather give such work as the analysis of urine, blood, &c., to his chemist, for a fee, than place himself under an obligation to any brother practitioner who happens to be more of an amateur in this sort of work than himself. Medical electricity might also be worked up into a speciality, for very few medical men can devote the time necessary to become skilled medical electricians, which, by the way, is not such a simple matter as is generally supposed. The mere applying a current at random is one thing, and its skilled application another, and it is without doubt a branch which might very well become part of the curriculum of the future pharmacist. In cases requiring this mode of treatment, the pharmacist, with all his paraphernalia at hand, could officiate under the direction of the medical attendant.

Then, again, the analytical knowledge he possesses might be of great service to the coroner in poisoning cases, and also to health departments in our great cities, where the condition of the atmosphere, the detection of sewer gases, the disinfection of houses, &c., would necessitate scientific advice and direction. The assaying of minerals, including phosphates, might also be worth attention. As a consulting chemist to the numerous manufacturing industries, a large field of usefulness lies open to the pharmacist. Very large establishments have long ago appreciated the knowledge of the practical chemist, and usually have one, whose duty it is to perfect their processes, utilize waste products, and suggest improvements generally. Numbers of smaller establishments cannot afford this addition to their staff, and are obliged to pick up information wherever they can. There is scarcely a pharmacist to-day who is not continually consulted with regard to the recipes used by tobacco manufacturers, dyers, hatters, furriers, brass-workers, gilders, &c., but his valuable hints are given gratis, and are consequently not appreciated.

In looking back, I can trace many scraps of information, given without the slightest remuneration, which have built up valuable businesses for the parties who have consulted me, and numbers

of pharmacists can make the same assertion. Now the labourer is worthy of his hire, and if the pharmacist would only add to his other titles that of analytical and consulting chemist, his clients would soon take the hint, and in course of time a fair addition to the annual income would result.

Let the embryo pharmacist ponder over these things, and let him, during his pupilage, bear in mind that he should study with other objects in view than the mere obtaining of a diploma. Chemistry is, without doubt, a very difficult study, but it is at the same time intensely interesting. It can never be a useless acquirement, for no matter what position in life the student may eventually drop into, the better he is acquainted with this noble science, the better prepared he will be to avail himself of the many opportunities which will present themselves of putting it into practice. Dr. Charles Symes of Liverpool, in an address delivered at a late distribution of prizes at the Pharmaceutical Society of London, gave the following excellent advice to pharmaceutical students: "I have been urging you to strenuous efforts that you may become worthy practitioners of pharmacy, and that its professional character may receive from you, as representing *the next generation of pharmacists*, a deeper impression than is now apparent,"

Messrs. Young & Postans, of the Pharmaceutical Laboratory, Baker street, Portman Square, London, writing to the *Chemists' and Druggists' Bulletin*, published in New York, say: "We in England desire and hope for a curriculum which shall ultimately bring about and enable us to establish in this country a properly recognized Pharmaceutical University, believing that the time is coming when a large proportion of the trade element will be disassociated from the dispensing of medicine, and that the medical profession will be represented by the physician, the surgeon, and the pharmacist; yet we imagine that such consummation will not be brought about except by the united efforts of pharmacists as a body to pull themselves up to such a standard, that medical men shall feel the services of the chemist in pharmacy and science to be imperatively allied with medicine, just as we require their allegiance in surgery and general medical practice."

## REPORT ON THERAPEUTICS AND PHARMACOLOGY.

BY JAMES STEWART, M.D., BRUCEFIELD, ONT.

*(Read before the Canada Medical Association, at Halifax, August, 1881.)*

In the whole field of therapeutics, there is no subject at the present day which is so actively occupying the professional mind as that of the ANÆSTHETICS.

Probably never since their introduction has there existed such a wide-spread desire to discover new and safer agents of this class. In regard to chloroform especially, the confidence of the profession in it is thoroughly shaken. The day of the dogmatic assertion "that pure chloroform, well administered, never kills" is past. The practical disadvantages of ether are numerous, and since its re-introduction into England there have been several instances of a fatal result from its use. Death under anæsthetics is, of course, the great and important fact connected with their use. The deaths from chloroform seem to have increased much in frequency in late years, and now amount to a very considerable number. It is very hard to estimate the exact number, as many of these cases are never published. Dr. Kappeler\* says that about 300 have been published, and Turnbull gives a list of 160 as having occurred in the 10 years between 1869 and 1879. A recent writer† says that there have been as many deaths published from chloroform as there have been months since its introduction, and he considers that for every case published, two to four remain unpublished.

A very important question is, How is death caused by chloroform? If we are able truly to answer this question, we will then be placed in a position to avert it in many cases. The theories that have been advanced to account for it have been very numerous and very conflicting. The work that has been done lately in endeavouring to solve this question is of a very high scientific character, and it must be said that we have made some decided advances in this direction. Probably the work performed by the "Glasgow Committee"‡ has been productive of the

---

\* Quoted by Reeve in *Am. Jour. Med. Science*.

† Reichert, *Amer. Jour. Med. Sc*, July, 1881.

‡ *Brit. Med. Jour.*, Dec., 1880.

best results. In conducting their investigations, they endeavoured, first, to ascertain wherein the special dangers of chloroform consist; and, second, to try if some anæsthetic agent could be found which would avoid these dangers. They soon discovered that chloroform, apart altogether from its action on the respiratory centres, had a disastrous effect on the heart, while ether has no baneful influence. They now searched for an anæsthetic as powerful as chloroform, and having as little effect on the heart and respiratory system as ether. This they believe they have discovered in the ethidene dichloride. This agent was first used by Snow. He administered it in fifteen cases with good results. In 1870 it was used by Liebreich and Langenbeck. During the last year or two it has been extensively used in England. Mr. Clover\* has published an account of his experience derived from 1,877 cases. In this interesting paper he gives the particulars relating to a case of death from cardiac syncope after the administration of ethidene and nitrous oxide gas, the nitrous oxide having been stopped before the ethidene was given. At the *post mortem* examination the heart was found to be enlarged, and its fibres were shown to have undergone fatty degeneration. Sauer† also mentions one case of death in a patient suffering from heart disease. In an extensive series of clinical investigations with chloroform and ethidene, conducted by the surgeons of the Western Infirmary, Glasgow, it was found that the ethidene acts quicker, but requires a larger dose than chloroform. There is a greater tendency in the case of chloroform to retardation of the heart's movements and to dirotism. The pulse respiration ratio is apt to be more affected and oftener than with ethidene. Both chloroform and ethidene, administered to animals, have a decided effect in reducing the blood pressure, while ether has no appreciable effect of this kind. Chloroform reduces the pressure much more rapidly, and to a greater extent, than ethidene. Chloroform has sometimes an unexpected and apparently capricious effect on the heart's action, the pressure being reduced with great rapidity to almost *nil*, while the pulsations are greatly

---

\* *Brit. Med. Jour.*, May 29, 1880.

† *Brit. Med. Jour.*, Dec., 1880.

retarded, or even stopped. Ethidene was never found to produce these alarming and sudden effects on the blood pressure. The conclusion of the Committee was that the ethidene was very much safer than chloroform.

As regards comparative danger, the three anæsthetics may be arranged in the following order: Chloroform, ethidene, ether; and the ease with which the vital functions can be restored may be conversely stated, thus: the circulation is more easily re-established when its cessation is due to ether than to ethidene; and when the result of ethidene, than when chloroform has been used. The disadvantages of ether are, to a great extent, obviated by the use of ethidene, whilst the dangers of chloroform are also reduced to a minimum. Nussbaum's method of first injecting some morphia hypodermically, previous to the administration of chloroform, has lately been coming into more extensive use. It is claimed for this procedure that a much less quantity of chloroform is necessary, and that the stage of excitement, both muscular and mental, is lessened, and that thereby the dangers of anæsthesia are diminished. Mollow claims further that the morphia lessens the irritability of the air passages, and so restrains reflex action on the heart that, in this respect, its effect is similar to division of the vagus, and also that the morphia increases the blood pressure, and so is able to antagonize the deleterious influence of the chloroform for a lengthened period. Dr. Kappeler, who has had an extensive experience with this method, gives the morphia about half an hour previous to the administration of the chloroform, and in doses of about a quarter of a grain. This mixed method, he claims, is particularly suited for nervous patients, as the narcotic allays the extreme sensibility present in these cases. Dr. Crombie,\* of Bengal, speaks very highly of this method also. For the prevention of cardiac failure from chloroform inhalation, Profs. Fraser and Schæfer† recommend the injection of atropine. Nitrite of amyl, turpentine, acupuncture and the application of boiling water to the cardiac region have all been recommended for the same object.

---

\* *Practitioner*, Dec., 1880.

† *Brit. Med. Jour.*, Dec., 1880.

Another anæsthetic agent which has been attracting a good deal of attention on this side of the Atlantic lately is bromide of ethyl. First used and introduced by Nunnely, of Leeds, and lately extensively used by Drs. Turnbull and Levis, of Philadelphia. The latter says:\* “I have used it under the most varied circumstances which could be required to test the merits of an anæsthetic, . . . . . and in the most abnormal conditions of debility and shock of injury, in capital operations, through protracted periods of operations, in patients from early infancy to extreme old age.” He is convinced that it is practically the best anæsthetic known to the profession. The two leading peculiarities of bromide of ethyl are quickness of action and speedy recovery from the anæsthetic condition. Unfortunately, this agent was not long in use before two deaths occurred from its administration, one reported by Marion Sims,† the other by Levis.‡ In Sims’ case death did not take place until twenty-one hours after the operation, and therefore the fatal result was not owing to any depressant action of the anæsthetic on the heart, which is an important fact. The kidneys were found to be the seat of “Acute Catarrhal Nephritis,” and it is probable that this condition was the direct result of the anæsthetic. Several cases are reported where very alarming symptoms of cardiac failure have occurred during the administration of the bromide of ethyl, but where death was apparently prevented by appropriate remedies. Wood and Reichert§ have shown that the bromide of ethyl is a direct cardiac depressant, and that it at times acts out of all proportion to the dose administered. It has been asserted by Squibb|| that bromide of ethyl is a loosely molecular compound, prone to undergo decomposition in the system and liberate free bromine.

Reichert,¶ in an able article, shows that it is very likely that

---

\* *Amer. Jour. Med. Sc.*, July, 1880.

† *N. Y. Med. Record*.

‡ *Med. News and Abstract*, June, 1880.

§ *Philad. Med. Times*, May, 1881.

|| *N. Y. Med. Record*.

¶ *Am. Jour. Med. Sc.*, July, 1881.

all halogen-holding anæsthetics are loosely molecular compounds, and liable to liberate their chlorine, bromine, or iodine. If this proves to be true, we are not likely to find any safe anæsthetics in this group.

The mode of action of anæsthetics on cerebral protoplasm is a subject which has lately been attracting some attention in France. Cl. Bernard,† in a series of experiments, demonstrated the fact that if chloroform blood is prevented from reaching the encephalon, no anæsthesia takes place. He compares the action of chloroform on the brain to a natural sleep, which is a slow anæmia of the nerve centres; but the diminution of blood does not reach lower than what is necessary for an organ in repose. He further states that the anæsthetics determine a coagulation of the substance of the cerebral cells. This coagulating action of the anæsthetics on protoplasm affects all the tissues. The heart of an animal placed in the vapour of chloroform soon loses its excitability, and when its fibres are examined by the microscope, they are found to be no longer transparent. If a nerve is submitted to the same influence, it is found to lose its transparency and excitability.

#### AGENTS WHICH REDUCE ARTERIAL TENSION.

High blood-pressure gives the earliest indications of the grave series of degenerative changes throughout the body, known as chronic Bright's disease, and may, if neglected, lead to disastrous results, both in disease of the arteries and the heart. We are able to recognize this state of the circulatory system by the sphygmograph, and this instrument gives us very valuable aid in deciding what our remedies are doing. "It is very common to meet with people, apparently in good health, who have no albumen in their urine or any other sign of organic disease, but who constantly present a condition of high arterial tension when examined by the aid of the sphygmograph. Such people are very commonly subjects of the gouty diathesis, dyspeptics, suffer from functional derangements of the liver, indulge too freely in

---

† H. Duret, "Les Nouveaux Anæsthetics et l'Anæsthesiæ," Charcot's *Archiv.*, No. 1.

alcohol, or have, from one cause or another, tainted or impure blood." (Mahomed.)\* When this condition of the arterial system is extreme, we can feel the "persistence" of the pulse by means of the finger alone. The artery is rigid, not from any thickening of its coats, but from a constant hyperdistension. All these facts go to show that there is present a great pathological entity, and which demands the most careful treatment, if we are to prevent those changes in the heart, kidneys and other organs which will most certainly follow in the course of time. Blood-letting is probably the most expeditious method of relieving tension in cases of impending apoplexy or in the coma of uræmia.

Hamilton† speaks highly of blood-letting as *the* remedy in the initial stage of croupous pneumonia. In this disease there is high tension, but in catarrhal pneumonia we have the very opposite conditions of the circulatory system present. The reduction of blood-pressure effected by general blood-letting is not very great, and its effect is but very temporary. We have experimental proof of the truth of this shown us by Kussmaul and Tenner, who desired, after removing the whole of the cerebrum, to take successive slices off the cerebellum. They, however, found that all their normal rabbits bled to death before they could reach the conclusion of their experiments, but they found no trouble in finishing them if they previously kept the animals on a dry diet for a period of two weeks. No deprivation of water was sufficient to bring down the blood pressure. The result of this experiment goes to show that a dry diet is superior to blood-letting as a reducer of arterial tension when we want a permanent effect. In cases of angina pectoris, due to, or accompanied by, increased arterial tension, it has long been a well-known fact that the nitrite of amyl exercises a very beneficial effect. The action of the amyl is, however, of so temporary a character that it is not adapted to those cases where we want to bring about a continuous or permanent dilatation. It has been shown by Reichert‡ that the nitrite of potassium possesses this desirable property. Its

\* *Lancet*, August 18, 1877.

† *Practitioner*, 1880.

‡ *Amer. Jour. Med. Sc.*, July, 1880.

physiological actions are similar in every respect to those of the amyl nitrite, but possessing a more permanent action. This action will probably be found to be of great advantage in the treatment of those chronic conditions attended by high arterial tension. Another drug which has been experimentally found and therapeutically proved to have a considerable effect in reducing systemic contraction is nitro-glycerine. Dr. Murrell\* found that one or two drops of a 1 per cent solution causes a painful sensation over the whole head, which soon extends to the entire body. It causes a glow on the face, but not the great blushing we see when the nitrite of amyl is given. Nitro-glycerine gives also a similar sphygmographic tracing to the nitrite of amyl. The amplitude of the tracing is much increased; the rise and fall is abrupt. The trace displays much diastole. Dr. Murrell has tested it in three severe cases of angina pectoris with very considerable success; a success quite equal to that afforded by nitrite of amyl. He gives 1 m of a 1 per cent solution every three hours on sugar or in a little water. Dr. Mayo Robson† and many others have used nitro-glycerine in angina pectoris also with beneficial results. Dr. Robson‡ has also had good effects from its use in acute and chronic Bright's disease, and in the vascular tension of the aged. It has also been found of marked benefit in alleviating the paroxysms of hemicrania and preventing their frequent recurrence. Cannabis Indica is another agent of undoubted value in cases of increased arterial tension. It has been shown§ that it has a remarkable influence in ameliorating and sometimes actually curing those cases of hemicrania that have for their fundamental pathological condition a contraction of the arterioles. I am not aware of its having been used in other pathological states due to or attended by increased arterial tension, but, judging from its physiological action, it would appear to be worthy of a trial. Chloral hydrat. is another drug which possesses the power of reducing arterial tension, and on this account it is highly recom-

---

\* Ringer's Therapeutics, Ed. 7, p. 373.

† *Brit. Med. Jour.*, April 10, 1880.

‡ *Brit. Med. Jour.*, Nov. 20, 1880.

§ The writer, in *Canada Med. & Surg. Jour.*, October, 1880.

mended by that able physician, Dr. Fothergill, in acute endocarditis. He shows\* clearly how, with rest in bed and continuous small doses of chloral, the heart is placed in the best possible condition to recuperate. By these means that increase of connective tissue which is accelerated by high arterial tension is prevented. He further points out the great danger of giving what is very often ordered in these cases—digitalis; for it is a well-known, but unfortunately not commonly recognized, fact that digitalis† contracts the arterioles and thereby increases the blood-pressure, the very condition which we should do our utmost to prevent.

This will be an appropriate place to consider the treatment of internal aneurisms by the iodide of potassium. In May of the present year Dr. Duffey,‡ of Dublin, exhibited before the Medical Society of the College of Physicians in Ireland a specimen of aneurism of the thoracic aorta, which furnished an example of the disease approaching to a cure by coagulation of the blood within the sac of the aneurism, such result being fairly attributable to persistent treatment with large doses of the iodide of potassium. It is not due to irritation of the vaso-motor centre, for Böhm and Gärtz have shown that after careful cutting of the spinal cord and both vagi, digitalis will still bring about an increase, although it is not so great on account of the previous extreme dilation of the vessels. After complete paralysis of the vaso-motor centre and spinal cord by chloral, digitalis will still raise the blood pressure. Williams comes to the conclusion that the increase is due to changes effected in the elasticity of the heart's muscle by digitalis. The aneurism was not the immediate

---

\* *Practitioner*, January, 1881.

† Williams, in a very important paper (*Ueber die Ursache der Blutdrucksteigerung bei der Digitalinwirkung*) published in the *Archiv. für Exper. Path. und Pharmakologie*, Band XIV., shows that digitalis causes the following changes in the following order in the circulation:—

- (1) Increased blood-pressure with diminished pulse frequency.
- (2) Continuation of high blood-pressure with increased pulse frequency.
- (3) Irregularity of the heart when the blood-pressure is high.
- (4) Rapid sinking of the blood-pressure as the heart comes to a standstill. What is the cause of the increased blood-pressure?

‡ *Brit. Med. Jour.*, June 4, 1881.

cause of the patient's death. In this case the iodide of potassium was administered in gradually increasing doses, until at last the patient was taking 40 grains three times daily. The effects of these large doses were most satisfactory. They produced no unpleasant effects. The patient obtained complete relief from the pains; the tumor diminished materially in size; it became quite firm and hard to the touch; and the pulsation in it, from being forcible, elastic and visible, was now barely perceptible; and he was discharged from hospital in this satisfactory condition, after being under treatment for four months. He died shortly afterwards from an attack of bronchitis, followed by pneumonia and collateral hyperæmia of the lungs. At the same meeting Dr. Duffey gave the details of another case that was then under his treatment by the iodide of potassium, and in which a remarkable change took place in the size of the sac; the pains were also greatly relieved. There can be no question whatever but what a few cases of internal aneurism have been cured by the iodide of potassium. For this we are indebted to Dr. Balfour, of Edinburgh. How does the iodide of potassium act? That it is not owing to the potash, as has been often suggested, appears probable from Balfour's experience, as a trial by him of other potash salts failed to have the least influence over the disease. The iodide produces diminution of the cardiac force and blood pressure, and for the production of these effects rest in the recumbent position is not necessary. The following appears then to be the most appropriate treatment for those cases of internal aneurism that cannot be dealt with surgically:—(1) The administration of large doses of the iodide of potassium for a lengthened period; (2) Rest in the recumbent position; (3) A dry diet. Dr. Flint\* reports the case of an aneurism of the abdominal aorta, in a lady, aged 65, apparently cured by chloride of barium in doses of 2-5 of a grain continued for a period of five months.

#### ANTISEPTICS.

In this group of agents we have had lately some interesting work, a short *resumé* of which I will now give:

---

\* *Practitioner*, July, 1879.

Klebs\*, of Prague, gives an account of two cases of typhoid fever that he treated with large doses of the benzoate of magnesia. The first case, a male, aged 23, when first seen (5th day) had a temperature of  $39^{\circ}.6$ , and was in a soporose condition, and could only be aroused with difficulty. The tongue was dry and brown. He was given 10 grammes of the benzoate of magnesia during the next 24 hours, and at the end of that time it was found that the tongue was moist and the temperature down to  $38^{\circ}.1$ ; consciousness had returned. On the 14th day the temperature was normal, and remained so; the benzoate was, however, continued for 12 days longer, or, in all, for 26 days, during which time 450 grammes or 28 oz. were taken.

In the second case, a male, aged 38, the temperature on the 5th day of the disease was  $40^{\circ}.1$ . He was given daily 20 grammes of the benzoate of magnesia. Eight days after the initial shivering the temperature was normal and remained so. The patient took altogether 180 grammes of the benzoate in nine days.

Such a satisfactory result in only two cases teaches certainly but little; the result, however, is sufficient to warrant the employment of this antiseptic in still more heroic doses. There is no other antiseptic at present known that can be given in such large doses without producing disagreeable and even dangerous symptoms. If the poison of typhoid fever depends on a bacillus, as Klebs† thinks he has proved, there is undoubtedly a great future before the antiseptic treatment of this and other kindred diseases. Jahn,‡ in an epidemic of typhoid fever in 1872, treated his cases with small doses of quinine, and cold baths when the temperature ran very high. He had a mortality of 23 per cent; average duration of fever 24 days. In a second epidemic (1874) he used baths alone, and had a mortality of only 8.5 per cent; average duration of fever 25 days. In a third epidemic (1875-6) he used salicylic acid, and had only a mortality of 7.1 per cent; average duration of fever 21 days. From ʒi to ʒiiss of the acid or its soda salt was given daily. The use of the acid was nearly

\* *Arch. fur Exp. Path. und Pharma.*, Band XIV.

† Klebs: *Der Bacillus des Abdominaltyphus und der typhöse process.*

‡ Quoted by Klebs.

always followed by a decided reduction in the temperature, and on its being withheld the temperature quickly rose. If salicylic acid should prove to be a powerful antidote to the poisons of typhoid, we would be unable to give it in sufficient doses, owing to its producing often violent pharyngitis and irritation of the bronchi. According to both Jahn and Klebs, the salicylates have a good influence over the nervous phenomena of typhoid. Patients in a soporose condition are soon brought back to a conscious state. The unpleasant cerebral effects which salicylic acid and its salts are said to produce have not been noticed by these observers. Immerman\* states that there were relapses in only 4 per cent of cases treated by salicylic acid, and 26 per cent of relapses in cases treated by all other means.

The antiseptic treatment of diphtheria has been attracting a good deal of attention lately. Chlorate of potash, which is used very extensively either locally or internally in diphtheria and other throat affections, is only antiseptic in dangerous doses. A saturated solution of the chlorate of potash in water is not antiseptic. It requires a strength of 1 to 5, and this is a poisonous solution; the chlorate acts as all other salts of potash do in large doses, by paralyzing the heart. As death in diphtheria frequently takes place in the same way, it follows that chlorate of potash is a dangerous remedy to give in doses large enough to produce any antiseptic action. Küster† reports four cases that came under his own observation where death was in all probability brought about by the action of the chlorate of potash on the heart. Weise‡ recommends very highly a 2 per cent solution of salicylic acid in diphtheria. This is a strongly antiseptic solution, but not a dangerous one. He employs the following formula:—

R Acid Salicyl., - - - 1.09  
 Sp. Vini Rectif.  
 Glycerine, - - - āā 25.00

At the same time he uses benzoate of soda internally.

\* *Archiv. fur Exp. Path. und Pharm.*, Band XIV.

† *Berliner Kl. Woch.*, No. 40, 1880.

‡ *Berliner Kl. Woch.*, No. 4, 1881.

Oertel,\* of Munich, considers that he has proved that diphtheria is an infectious disease, caused by a fungus designated as "*Micrococcus Diphtheriæ*," which, localized in the mouth and pharynx, produces inflammation and fibrinous exudation of the mucous membranes and, after an undeterminable length of time, general infectious disease, the general infection being dependant upon and kept up by the local. If this theory is correct, all that is necessary is to destroy this organism, and remove from the affected parts the products of the disease. For destruction of the organism, Oertel employs carbolic acid in the form of spray (1 to 20). He has lately treated 27 severe cases in this manner, all entirely successful. The severity of these cases was such that Oertel believes that under any other form of treatment three-fourths of them would have been fatal. In the severest cases it was only after such impregnation of the blood with carbolic acid that olive-green coloration of the urine appeared that he observed a rapid diminution of the disease. For the separation and removal of the false membranes, he uses warm vapor locally, and the internal administration of jaborandi. As the latter remedy seems to be very useful in this disease, it will be more useful to mention what it is said to have done in diphtheria while on this subject. It was first used by Dr. Guttmann,† of Canstatt. He has used it for 16 months, and regards it almost as a specific. During this time he treated 75 cases—all recovered. It was given internally, and it was noticed that in a very short time it produced an active flow of saliva, by means of which the false membrane was loosened, the inflammatory irritation lessened, and the intense redness gave place to a more normal color. He uses the following formula:

℞	Muriate Pilocarpine, . . . . .	0.02
	Pepsine, . . . . .	0.05
	Acid Hydrochl., . . . . .	gtt ii
	Aq. Distil., . . . . .	80.00

Sig. One teaspoonful every hour. For adults, double the dose. Oertel‡ speaks very favourably of this mode of treatment. He,

\* *Arch. Laryngology*, January, 1881.

† *Berl. Klin. Woch.*, No. 40, 1880.

‡ *Arch. Laryngology*, January, 1881.

however, does not, like Guttman, consider it to be a specific. Lereboullet\* reports favourably of its use. Küster† reports four severe cases where pilocarpin acted very well; a fifth case died from nephritis after removal of the membrane from the throat. Weise‡ also bears testimony to its beneficial action in a few cases; and he also adds the report of a case where he considered death was in a great measure caused by the deleterious influence of the jaborandi on the heart. It is well known that jaborandi exercises a paralyzing influence over the heart, and from late researches§ it would seem that this cardiac influence resides in an alkaloid named jaborin, and not in the pilocarpine. Should this be true, we could get all the good influence exerted by a pure preparation of pilocarpine, and none of the disadvantages arising from other ingredients contained in jaborandi by using the former alkaloid. At present it becomes us to be very careful in ordering this drug in cases of diphtheria, and where there are the least symptoms of cardiac failure to discontinue its administration.

While on the subject of the treatment of diphtheria, I would like to call attention to some remarkable experiments performed by Prof. Rossbach|| of Wurzburg on the action of papayotin in dissolving diphtheritic membranes. A solution of papayotin (1 to 20) dissolved a piece of croupal membrane (removed from the trachea and bronchi) into fine particles in an hour. In six hours the solution was perfectly clear, and no trace of any elements could be seen under the microscope. It took a lime solution three days to dissolve a similar membrane. In a bromine and bromide of potassium solution there was scarcely any change to be seen after four days immersion. Pepsine and weak acids affected no change after 48 hours. Owing to his supply of papayotin becoming exhausted, and no more being procurable,

---

\* *Bulletin Général de Therapeutique*, June, 1881.

† *Berl. Klin. Woch.*, No. 27, 1881.

‡ *Berl. Klin. Woch.*, No. 4, 1881.

§ Ringer, *Practitioner*, January, 1881. Albertoni, Harnack and Meyer, *Arch. für Exp. Path. und Pharm.*

|| *Berl. Klin. Wochenschrift*, No. 10, 1881.

Prof. Rossbach was unable to put this agent to a practical test in the treatment of a case of diphtheria. He made use of another part of the plant known by the name of *succus*, but this is a very much weaker preparation than papayotin, requiring over a day to dissolve what the latter accomplishes in an hour. It was given to a child, aged 15 months, who had a diphtheritic exudation covering the pharynx and tonsils, and symptoms of stenosis of the larynx. Owing to the extensive surface involved, and weakness of the child, a very unfavourable prognosis was given. A concentrated solution of the "Succus Caricæ Papayæ" was pencilled on the throat every five minutes. In 24 hours the tonsils and pharynx were free from exudation. The laryngeal stenosis was, however, still present, and the local treatment was now directed to the larynx, with the result that before many hours all symptoms of the stenosis had vanished. The child, however, died from atelectasis and œdema of the lungs. On *post-mortem*, the mucous membranes of the throat and larynx were found swollen and red, but no trace of diphtheritic or croupal membrane was to be seen, except a minute patch at the anterior angle of the vocal cords. These results published by such an accurate and intelligent observer as Prof. Rossbach demand the earnest attention of the profession.

The local applications of bromide of potassium, iodide of silver and fluorhydric acid have been recommended\* in diphtheria during the last year.

(To be continued in our next Number.)

## BI-MONTHLY RETROSPECT OF OBSTETRICS AND GYNÆCOLOGY.

PREPARED BY WM. GARDNER, M.D.,

Prof. Medical Jurisprudence and Hygiene, McGill University; Attending Physician to the University Dispensary for Diseases of Women; Physician to the Out-Patient Department, Montreal General Hospital.

*The Relation of Cleanliness to the Prevention of Puerperal Septicæmia* is the subject of a clinical lecture by Dr. Albert H. Smith of Philadelphia in the October (1881) number of the

\* Peyrand, Gassicourt, Brame and Bergeron, in *Bulletins et Memoires de la Société de Thérapeutique*, 30 Janvier, 1881.

*Medical News and Abstract.* Since it has been established beyond a doubt that the causation of the diseases classed under the title puerperal fever is absorption of decayed animal matter by open raw surfaces, all observers of note agree that these diseases are precisely analogous in their causation, pathology, course of development, urgent need of prophylaxis and treatment to septic inflammation and fever found in surgical practice; the only differences depend on the peculiarity of the tissues involved in parturition, upon their exceeding capacity for absorption and transfer of poison, and the many points likely to be presented where such absorption may take place. How to keep the genital canal clean during and after parturition is then the great question in the prevention of this horrible malady. After reviewing the various possible sources of poison and the numerous avenues by which they may enter the system of the lying-in woman, Dr. Smith speaks of an autogenetic source of infection during parturition to which he believes attention has not hitherto been drawn, and which he believes to be one of the most fertile causes of septic fever after prolonged labour. This is the accumulation and continued exposure to atmospheric influence in contact with the warm tissues of the mother, of the natural and healthy discharge of mucus with its admixture of blood from the cervix and vagina, while the tissues are gradually relaxing for the passage of the child. This discharge is perfectly healthy when it exudes, but covering the external parts, the heat of the patient's body and the warm air of the chamber soon decompose it and sepsis results. Dr. Smith further mentions other sources of poison probably unsuspected by most accoucheurs. Such are: sores on the doctor's hands or any part of his person which may be touched by the hands; granular ophthalmia; otorrhœa; a purulent coryza; or a foul ozæna, with any one of which the finger is often brought into contact. The essential principle in the carrying out of that great indication, the prevention of puerperal fever, is cleanliness; keeping clean the tissues before and after the production of the lesions of their surface, and of everything that comes in contact with them; the purifying and removal of all morbid materials, and the prevention by suitable means, of

their reproduction. Dr. Smith lays down certain rules and gives certain hints for the guidance of accoucheurs. After touching any decomposing animal matter the hands must be carefully washed with disinfectant solutions, using the nail-brush freely. This should be repeated before the person of the patient is approached. Between the washing of the hands and the examination of the patient nothing should be touched except what is known to be perfectly clean. No driving should be done, or gloves worn; nothing of doubtful character should touch the hands. The disinfectant solutions used by Dr. Smith, and which he always orders as a part of the preparation for labour, are  $2\frac{1}{2}$  per cent of carbolic acid, or 6 or 7 per cent of good recently-made Labarraque's solution; that is, about seven fluid drachms of a 95 per cent solution of the former, and about a fluid ounce of the latter to a pint of water. For lubricating the finger he uses washed lard carbolized to from 5 to 10 per cent. He prefers the chlorinated to the carbolized solution, as it is a more powerful disinfectant, and in such proportion as is necessary for the purpose, it does not burn the skin or obtund the tactile sense like the carbolized solution. This solution is to be used for the hands and for any instruments—forceps, vectis, catheter, or other. After a rectal enema, if the membranes be not ruptured, a vaginal injection of either is given; this is not practised if the membranes are ruptured. The external genitals are frequently bathed with one of the solutions, and from time to time a soft cloth soaked in the solution is carried by the finger into the vagina as far as it will reach. Dr. Smith believes the antiseptic spray during labour to be unnecessary and annoying to both patient and physician if carried out to the necessary extent. It chills the patient and irritates and benumbs her parts as well as the accoucheur's hands. He practises the method just described instead of it. After delivery of the placenta, he washes out the uterus at once with a syringe and hot water at  $115^{\circ}$  to  $120^{\circ}$  Fah., either chlorinated or acidulated with vinegar, about twenty-five per cent. He formerly used carbolic acid for this purpose, but within a year has seen two cases of immediate carbolic poisoning result, thus confirming Fritsch's statements on this point. For four days

after labour he directs the nurse to wash out the vagina with carbolized or chlorinated water at about 110° Fah. every four or six hours. If any offensive lochia appear, with the least symptom of septic poisoning, he washes out the uterus with a ten to fifteen per cent Labarraque solution, with a double canulated uterine tube, using a syphon in preference to a forcing syringe.

*Uterine Electro-therapeutics*, by Dr. J. Dixon Mann of Manchester: a paper in the *Lancet* for July 9th and 23rd, 1881.—The constant current has physiological, chemical and thermal effects. The thermal effects are so slight that they may be disregarded; the chemical are of more importance. Allied to the latter are its power of promoting osmosis and absorption, and accelerating the movements of lymph in the lymphatics and lymph spaces. Its principal physiological effect is on the vaso-motor system. It first dilates the arterioles, the dilatation beginning soon after the circuit is closed, sometimes during application, and a short time after. Soon after withdrawal of the current the dilatation subsides, and there is then contraction of vessels. Thus by repetition vascular congestion is diminished. Anodyne effects of the constant current are well established.

The induced current possesses feeble chemical and catalytic effects. Its action is chiefly in producing muscular movements. The primary effect on the vascular system is to produce contraction of the arterioles. This gives place to dilatation, the result of paresis from previous excessive contraction. This effect on the vascular system is much shorter in duration than that from the constant current. An important effect of the induced current is to stimulate the muscular structure of the womb. In the treatment of amenorrhœa by electricity, a comprehensive view of uterine disorders must be taken. Electrical treatment is only useful when the causative defect is in the generative system and the organism as a whole is healthy.

The treatment of necessity must be prolonged in most instances, thus requiring patience on the part of both physician and patient. An ill-nourished or ill-developed organ cannot be immediately brought to a performance of its function. The organic defect must first be remedied. Imperfect nutrition demands prolonged

use of the constant current: simple atony commonly yields to a much shorter application of the induced current. The necessary instruments for uterine electro-therapeutics are: an insulated sound (two sizes), a cervical electrode, and two or more large disc electrodes. The sound is coated with gold in its curved part, or is made of solid platinum, which is better. The stem is to be insulated to within two inches of the end by covering it with a gum-elastic catheter. The external electrode is an oval disc of flexible metal, with a layer of amadou on one side and covered with wash-leather. Dr. Mann relates three cases treated with electricity, bearing out the statements made in the first part of his paper. One of these was a case of amenorrhœa, with imperfectly developed uterus, measuring only  $1\frac{5}{8}$  in. Applications during fifteen minutes twice weekly of the constant current from twenty-five cells were made for some time. At the end of five months the uterus measured  $2\frac{1}{4}$  in., and the patient menstruated for the first time. After this she was regular. The applications were now made at longer intervals, the induced current being used when the symptoms indicated approach of the menses.

The second case was one of amenorrhœa following a severe illness. Both currents were used, and at the end of two months the menses returned and continued to be regular.

Dr. Mann further relates a case of spasmodic or neuralgic dysmenorrhœa, the pain being intense for twenty-four hours before the appearance of the discharge, and attended with vomiting, successfully treated by intra-uterine applications of the constant current. In this case there was neither flexion nor congestion. The sound was easily passed, but caused much pain. The applications of about eighteen to twenty cells were made three times a week. At the first period there was no vomiting and much less pain. Treatment was resumed in the interval. At the next period she was so much better that she declined further treatment. This is a remarkably satisfactory result of treatment of an exceedingly obstinate set of symptoms. Such results certainly warrant a further trial of the remedy. It is probably effectual by an anodyne or modifying effect on the mucous membrane of the uterus. Simple ovarian neuralgia or irritation

without oöphoritis or peri-oöphoritis is a condition in which there is much to expect from the constant current so useful in other neuralgiæ. Simple subinvolution in its early stages, without perimetric inflammation or pelvic disease, is a condition in which electricity is likely to be useful. The author reports having treated and cured such a case in seven weeks.

*Amputation of the Cervix Uteri for Chronic Metritis*, by Dr. A. Leblond. (Communicated to the International Medical Congress in London, August, 1881. *Annales de Gynecologie*, Sept. 1881.)—Dr. Leblond strongly advocates this method of treatment (also practiced by Gallard of Paris) for chronic metritis which has resisted the ordinary therapeutical measures. He, however, alludes to the fact that medicines such as iron, arsenic and iodine compounds are undoubtedly sometimes of real service. Locally, at the very outset, leeching, cupping and scarification are useful, but soon a stage is reached when caustics are needed. Nitrate of silver, iodine, nitric acid, and chromic acid are useful in cases of moderate severity. In the more severe and long-lasting cases, free use of the actual cautery is necessary. If this method of treatment be selected, it ought to be thoroughly applied. A recent modification of the method of application is ignipuncture of the cervix by a filiform or needle platinum cautery heated by the galvanic current, which is made to penetrate its substance to a depth of five or six millimetres in six or eight places. The method of treatment by amputation will, M. Leblond believes, succeed when other methods fail. It will be found most useful in the early stages, when the portiovaginalis is still soft from hyperæmia and infiltration, with serum, and its surface granular and easily made to bleed. The method of amputation practiced by M. Leblond is the galvano-caustic platinum wire applied through a Goodell's speculum, and very slowly tightened so as to avoid bleeding. The subsequent cicatrization is slow, requiring three weeks or a month for its completion. The results in Gallard's and Leblond's experience have been most favourable.

*The Hypodermic Morphia Treatment of Puerperal Convulsions* appears to be growing in favour. From time to time favourable results of its employment are reported in the journals. Mr.

Maberly-Smith, resident surgeon at the Melbourne (Victoria) Lying-in Hospital, in the *Lancet* for July 16th, 1881, gives the results of treatment of fifteen cases in the Hospital and in the practice of physicians in the city of Melbourne. He concludes that the morphia treatment is far more successful than that by chloral, bromide of potassium, and chloroform, which he has found to be unsatisfactory. He injects one-fourth to one-third of a grain, according to the severity of the case, and prefers the simple solution of morphia, finding it more efficacious than a combination with atropia. One large dose is better than two small ones. Patients suffering from puerperal eclampsia, whether sensible or insensible, appear to resist the dangerous effects of the drug; it appears to have no bad consequences in cases, in which, under ordinary circumstances, morphia would be strongly contraindicated. Mr. Maberly-Smith has employed it in women who were insensible, with stertorous breathing, congested lungs and faces, and contracted pupils, and in every case with the best results. After the injection the patient may have one fit before the drug has had time to act, but has no more for some hours. If they recur, they yield just as readily to a repetition of the morphia injection. No case of puerperal convulsions has ended fatally in the Melbourne Lying-in Hospital since the treatment has been adopted. Short notes of five cases are appended. Mr. Maberly-Smith's experience agrees in every particular with my own. During the last year I have seen some remarkable results from this method of treatment. Apart from, as I believe, its undoubtedly greater efficacy than the commoner modes of treatment, it has the great advantage of facility of administration. The patient is usually unconscious and unable to swallow, or semi-unconscious and resisting. It is thus difficult or impossible to give remedies either by mouth or enema. In any case the hypodermic injection is morphia or Battley's sedative, which I have used oftenest, is easily administered, and rapidly produces its effects.

*The Proper Limitation of Emmet's Operation for Laceration of the Cervix Uteri.*—This was the subject of a paper read by Dr. C. C. Lee, surgeon to the New York Woman's Hospital,

before the Medical Society of the County of New York, on the 23rd of May last. During the discussion which followed, Dr. Emmet made some important statements with reference to the lesion and reparative operation coupled with his name. As is well known, Emmet, in his first published articles on this subject, claimed that the ill-effects of lacerations of the cervix were due to eversion or rolling out of the lining membrane of the cervix and its being pressed upon and chafed by contact with the posterior vaginal wall, and that the cause of this eversion was the increased weight of the uterus itself. At the meeting above alluded to, Dr. Emmet said that careful observation during some years past had led him to believe that the condition was due directly to the product or remains of some old inflammation in the connective tissue of the pelvis, and generally in one or both broad ligaments, by which the circulation to and from the uterus was obstructed. This would cause the parts to roll out and the erosion to form. He found this thickening always present to a greater or less degree. His study of the condition had convinced him that the operation should not be done until the parts had been brought into the best condition, for it could not be determined that the operation was necessary until this had been done. He found that in the absence of cicatricial tissue, by relieving the pelvic cellulitis and inflamed state of the cervix, he had occasion to resort to surgical measures in about one case in ten in which he would formerly have operated. A relapse of the cellulitis and of the eroded condition of the cervix was little likely to occur unless the operation involved the vaginal wall. The object in closing the laceration was to preserve what had been gained by treatment. It was to prevent a return of the erosion and pelvic inflammation. The accoucheur ought to be on the look-out for every indication of the lesion immediately after birth, and make frequent injections to keep the parts clean, and then healing of the wound without a thickened and hardened tissue would be more likely to take place. It is remarkable how much nature can do to heal such injuries, if only cleanliness be secured. He had seen at least two cases of vesico-vaginal fistula caused by labour, into which he could introduce his finger,

heal up within a month of their occurrence. How much more was to be expected from such a treatment of laceration of the cervix! In case of hemorrhage, the wound ought to be closed immediately. In such cases the perineum is usually ruptured; it ought to be sewed up at the same time.—*Cincinnati Obstet. Gazette*, Sept., 1881.

### Reviews and Notices of Books.

*The Applied Anatomy of the Nervous System: being a study of this portion of the human body from a standpoint of its general interest and practical utility, designed for use as a Text-book and a work of reference.*—By AMBROSE L. RANNEY, A.M., M.D., Adjunct Professor of Anatomy, and late Lecturer on the Diseases of the Genito-Urinary Organs and on Minor Surgery in the Medical Department of the University of the City of New York. With numerous illustrations. New York: D. Appleton & Co. Montreal: Dawson Brothers.

This comprises a course of lectures on the nervous system delivered by the author during the winter of 1880 and 1881. The following paragraph from the preface affords the *raison d'être* of the work: "The rapid strides which are being made in the interpretation of the symptoms of nervous diseases and the introduction of many new terms which must embarrass the reader of late treatises, unless he is educated up to the present standard of knowledge in this field of medicine, seem to the author a reasonable ground for belief that there is a demand for a volume which shall fit the practitioner and student to pursue his studies in this special line without embarrassment, if not with increased interest." The cerebrum and the cerebral nerves, the spinal cord, and the spinal nerves, are all described with special reference to the more recent developments concerning their anatomy and the physiological functions dependant thereon. The lectures are written in a colloquial manner, which, perhaps, often serves to render the meaning more forcible and to maintain the interest of the reader better than the more set fashion of the

ordinary text-book. It is profusely illustrated with cuts from the delineations of the most noted authors—Sappey, Ferrier, Hirschfeld, &c.—and many diagrammatic representations by the author, which are very useful in aiding the explanation of any difficult point. We are sure that the book will be well received, and will prove itself a very useful companion both for regular students of anatomy and physiology, and also for practitioners who wish to work up the diagnosis, &c., of cases of disorder of the nervous system.

*A Practical Treatise on Impotence, Sterility, and allied disorders of the Male Sexual Organs.*—By SAMUEL W. GROSS, A.M., M.D., Lecturer on Venereal and Genito-Urinary Diseases in the Jefferson Medical College of Philadelphia, Surgeon to, and Lecturer on Clinical Surgery in, the Jefferson Medical College Hospital and the Philadelphia Hospital, &c., &c. With 16 illustrations. Philadelphia: Henry C. Lea's Son & Co. Montreal: Dawson Brothers.

This is a really practical book, containing a great deal of information upon a subject which it is very important that physicians generally should have some correct knowledge of. It is one on which there is no doubt that very erroneous ideas widely prevail, and still the advice given in connection therewith may be of the highest value with reference to the peace of mind of individuals or the governance of their social relations. The forms of impotence are considered under the following heads: Atonic, Psychical, Symptomatic and Organic; and the conditions met with producing the disordered state in these various ways are fully described, with the treatment appropriate to each. Sterility, as is well known, may arise either from absence of the vitalizing fluid or absence of living spermatozoa in the fluid, which may be present in the usual quantity. Thus arises the division of these cases into the two classes, Aspermatism and Azoospermism. A third set of cases is described by the author under the term Misemission, under which he includes cases arising either from vices of conformation of the urethra or from malposition of the meatus. The subject of Spermatorrhœa is fully treated of, and

all the causes of this malady are enquired into. The reality of the disease, and the fact that it is to be removed by suitable treatment, often of a local character, no physician of experience can doubt, and the chapter in this work furnishes an excellent guide for the management of such cases. But, at the same time, it seems to us that the author fails to point out the fact that an immense number of supposed cases of spermatorrhœa are purely imaginary, and arise from the ignorance of so many young men that the nocturnal evacuation of the seminal vesicles at reasonable intervals is a natural process, and one which need give them no concern. If the physician gain the confidence of his patient, this idea can soon be dissipated by him and much mental distress prevented. It is notoriously by prying on the fears of the inexperienced that the quacks gain command of their dupes, and it is the duty of medical men to protect the unwary from the wiles of these artful dodgers as much as possible. Thus every scientific treatise on these affections is a useful addition to our literature, and this book, from the pen of one having enjoyed such extensive opportunities for observation will no doubt be widely read.

*The Physician's Visiting List for 1882.* Thirty-first year of its publication. Philadelphia: Lindsay & Blakiston.

The above well-known Visiting List comes to hand as usual. It is, as ever, neatly gotten up, and having used it for many years past, we can recommend it to the notice of all who require such an article.

---

### Books and Pamphlets Received.

ANTISEPTIC SURGERY: THE PRINCIPLES, MODES OF APPLICATION, AND RESULTS OF THE LISTER DRESSING.—By Dr. Just Lucas-Champonnière. Translated and Edited by Fred'k Henry Gerrish, A.M., M.D. Portland: Loring, Short & Harmon.

A PRACTICAL TREATISE ON HERNIA.—By J. H. Warren, M.D. Boston: Jas. R. Osgoode & Co.

EPILEPSY AND OTHER CHRONIC CONVULSIVE DISEASES: THEIR CAUSES, SYMPTOMS AND TREATMENT.—By W. R. Gowers, M.D., F.R.C.P. London: J. & A. Churchill.

TRANSACTIONS OF THE AMERICAN GYNECOLOGICAL SOCIETY. Volume V. For the year 1880. Boston: Houghton, Mifflin & Co.

TRANSACTIONS OF THE COLLEGE OF PHYSICIANS OF PHILADELPHIA. Third Series. Volume V. Philadelphia: Lindsay & Blakiston.

THE SCIENCE AND ART OF MIDWIFERY.—By William T. Lusk, A.M., M.D. New York: D. Appleton & Co.

---

## Society Proceedings.

### MEDICO-CHIRURGICAL SOCIETY OF MONTREAL.

A regular meeting of this Society was held on Sept. 30, 1881. The President, Dr. Hingston, occupied the chair.

Dr. Mills was elected a member.

Dr. Osler exhibited a portion of jejunum, presenting 53 intestinal diverticula, some of them as large as an apple, after which he read a paper on "Obliteration of the Portal Vein."

Dr. McConnell then read a paper on "A case of Ovarian Tumour, with recovery after accidental bursting of the tumour."

Dr. Ross said he knew of a case where diagnosis of cystic tumour had been made out, and while riding on horseback it was ruptured, the contents escaping into the peritoneal cavity. The patient lived for many years after. These tumours are probably unilocular.

Dr. Hingston spoke of three cases. In one, large discharge from rectum; in the second, large discharge from vagina; and in the third, where tumour disappeared and again reappeared, and then disappearing and again reappearing.

Dr. Godfrey asked if these tumours ever assumed a malignant condition.

Dr. Trenholme said he had had one case where malignant disease was seen, and thought that it had been originally a simple cyst which had become malignant. He also said he had had two cases somewhat similar to Dr. McConnell's. In one case, the phthisical condition of the patient precluded any operation. The contents of the cyst escaped through the bowels, and there was no return of the tumour. In this case the cure was effected without any severe shock to the system. In the second case, there was a large and growing cyst in connection with a solid

tumour of the uterus, where the patient, after a severe fall on her buttock, passed a large quantity of fluid by the bowels. At the time of the accident she suffered from a great heat over the whole abdomen, showing that some of the fluid must have escaped into the peritoneal cavity. There have been repeated evacuations of smaller quantities of fluid, and the patient goes about with greater comfort after each discharge.

Dr. Wilkins brought forward the subject of peptonized food for rectal alimentation, stating his experience, and expressed his approbation of this form of food for enfeebled patients.

The meeting then adjourned.

---

A regular and annual meeting of the Society was held on the 14th October—the President, Dr. Hingston, in the chair.

The minutes of last annual and regular meeting were read and approved.

Dr. Osler presented two cases of aneurism :

The first case was from a patient of Dr. Roddick's, aged 49 years, who applied to him complaining of a cough. Did not examine chest carefully, and saw little of him till two weeks ago. He then found him almost choking, with gasping, spasmodic respirations. By stimulations externally and internally, he rallied from that attack. On examination next day, an area of dullness three inches square was found over the sternum ; the left pulse was weaker than the right. This condition lasted for ten days, the paroxysms coming on at intervals, till death resulted in the end quickly. Dr. Osler said the condition was that of multiple aneurism of the aortic arch. Stretching of the trachea did not give a thrill, but this aneurism was filled with a laminated clot, which may have prevented this sign being evident.

The second case was similar. Dr. Ross said there was no alteration in speech ; pulsation could be felt distinctly in this case and the other signs were evident. Dr. Osler said this sac contained no laminated fibrine.

Dr. Trenholme then read a paper on "A case of Melæna," which is of interest on account of the absence of *post-mortem*

conditions accounting for death, and also because of the unusual number of diverticula of the jejunum, as well as their large size. The following history is reported :—S. S., aged 56 years, a man of medium size, well developed, active, temperate habits, and of a dull complexion. For the past 26 years his wife states she could hear rumbling or gurgling sounds in his belly after every meal, and that he was in the habit of going for a walk immediately after eating to prevent people from noticing this. The gurgling was lessened by lying down. He was also subject to frequent attacks of vomiting and sometimes purging. Generally had two or three such attacks each summer. His appetite was unexceptionally good, except at these periods. He led an active, out-door life, being almost constantly on his feet ; and was in the habit of moose-hunting two or three weeks every winter. Though of a hearty appetite, he had always to be careful of the nature of his food—simple, plain, substantial food being that which best agreed with him. The sickness from which he died was of sudden onset. He went to his work perfectly well on Tuesday morning, but was seized with severe pains in the upper part of his abdomen about the middle of the afternoon, and though able to keep at his work till night, returned home prostrated with his sufferings. I saw him at 8 o'clock the same evening, and found him in a state of collapse, skin cold, and bathed with a cold, clammy perspiration ; eyes sunken, voice husky, breath cold, pulse rapid, small and thready, and with great pain in the right hypochondriac region. The bowels had not been opened since the morning. Upon inquiry as to the cause of his condition, the only one he could conceive of was that the previous afternoon (Monday) he had drunk a glass of iced ginger-ale. The length of time that had elapsed since the draught led me to give it little weight as the probable cause of the present alarming condition. His family history and his remarkably well-developed physique were so good as to preclude malignant disease. I was at a loss to account for the symptoms of a genuine case of cholera, less the alvine evacuations, and which were needed to complete the picture. Stimulants and hot fomentations were resorted to, together with hot bottles to feet, calves of legs, and armpits. About 1 o'clock on

Wednesday morning I was hastily called to see the patient, and found the general state much as it was in the evening, but that there had been a large bloody stool of about two quarts of blood, dark and liquid. Hot fomentations to the stomach were now discontinued, and opiates and brandy given by the mouth, and turpentine enemata administered by the bowels. During the day the condition of the patient continued as it had been. In the forenoon there was a slight effort at a reaction; but another severe hæmorrhage from the bowels occurred, and the man gradually sank and died at 7 o'clock in the evening. From the commencement of the illness till death supervened was about thirty hours. Dr. Scott saw the case with me, and while concurring in the treatment pursued, was equally with myself at a loss to account for the excessive and fatal hæmorrhage. The man's exceeding good health negatived the thought of malignant disease; while his active habits and not infrequent pains in the abdomen suggested aneurism, which was deemed hardly tenable on account of the history of the case in other respects and the course of the disease. The *post-mortem* examination was made by Dr. Osler, whose well-known ability as a pathologist made me hope that clear and satisfactory light would be thrown upon this (to me) anomalous and difficult case.

Dr. Osler then gave an account of the *post-mortem* examination. He also said the previous cases were suggestive of typhoid fever.

Dr. Gardner then read a report of the annual meeting of the American Gynecological Society, lately held in New York.

Dr. Hingston then gave a *resumé* of the year's work.

The Treasurer presented his annual report, audited by Drs. Roddick and F. W. Campbell.

Dr. Roddick moved, seconded by Dr. Osler, that the balance of amount due for furnishing rooms be paid out of the funds of the Society.—*Carried*.

A ballot was then taken, and the following were elected officers for the ensuing year: President, Dr. George Ross; 1st Vice-President, Dr. Kennedy; 2nd Vice-President, Dr. Rodger; Secretary, Dr. Edwards; Treasurer, Dr. Molson; Librarian, Dr. Gurd; Council, Drs. Roddick, Osler and Campbell.

Dr. Roddick moved, seconded by Dr. Henry Howard, a vote of thanks to the retiring officers of the year.—*Carried.*

Dr. Roddick gave notice of motion that in clause No 8 be added, "they shall also constitute a library committee."

Dr. Cameron brought up the matter of the advisability of continuing the present papers and magazines, which was agreed to. The meeting then adjourned.

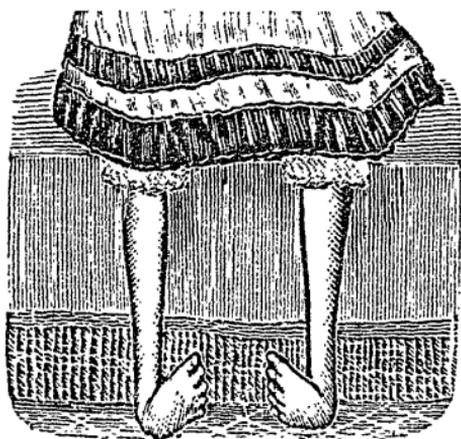
### Extracts from British and Foreign Journals.

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

**Treatment of Double Talipes Equino Varus by Open Incision and Fixed Extension.**—By Dr. A. M. PHELPS of Chateaugay, N.Y.—Mr. President and Gentlemen of the Society: As a delegate from Franklin County Medical Society, I came to Albany expecting to take no part in the proceedings of this meeting, only so far as the duties of delegate might devolve upon me. Since my arrival I have been urged by professional friends, to whom I had previously sent photographs, to report at this session the case of a little patient suffering from double talipes equino varus, upon whom I operated by open incision and fixed extension. The patient was a little girl  $6\frac{1}{2}$  years old. I first saw her May 15th, 1880. The feet were rigid. The inner side was very much shortened and described a sharp curve from the heel to the great toe, which rested upon the inner side of the tibia when the weight of the body was upon them. The attempt at walking had produced large bunions upon the dorsum of the feet, which were very much inflamed. The head of the astragalus was subluxated forward, and the limbs were very much atrophied.

*Fig. 1* is taken from the photograph presented at the Society, and gives a correct idea of the extent of deformity. Under an anæsthetic, and assisted by my friend Dr. Farnsworth and my student, Mr. VanVechten, I divided subcutaneously the tendo-achillis, tendon of tibialis anticus, the plantar fascia, and such contracted tendons and bands in the soles of the feet as I could safely do without wounding the artery and nerve. The feet were imperfectly restored to their normal position, and dressed with

Sayre's temporary dressing. (See Sayre's Surgery, p. 98.) After the wound had healed, and upon the seventh day, Barwell's dressing with rubber muscles was adjusted to each limb and faithfully continued for two months. Manipulations, showering of the limb, and strychnia hypodermically were used daily. Circumstances prevented the use of electricity. July 25th, 1880, the feet had not improved since the operation in May, and showed a determination to relapse when the dressings were removed.



(FIG. 1.)

Dr. Alfred C. Post of New York, who was at Chateaugay a short time before, related his treatment of a case of torticollis, in which he made an open incision and divided all contracted parts upon a director, thus securing a thorough operation without the danger of wounding important blood-vessels. The case, after some thought, impressed me as being something new and thoroughly scientific. By referring to authorities, I found no mention made of an operation upon club-foot by open incision. Sayre advises the division of the skin when it offers resistance to the foot being extended to its normal position. So, with no little hesitancy, I decided to operate upon my case by open incision, and dress the foot in a normal position, and keep it so until it healed. Under an anæsthetic, and assisted by Dr. Farnsworth, I made an incision one-half inch (13 mm) in front of the ankle joint, extending across the inner side of and two-thirds the distance across the soles of the feet through the skin and cellular tissues. Each contracted part was now carefully divided as it showed itself,

when the parts were put upon the stretch by extending the feet. After the completion of the operation it was found that the incision had been carried down to the bone in both feet. The artery and nerve were both divided in the right foot accidentally; but in the left they were carefully guarded. The long calcaneo-cuboid ligament was not divided, as it offered no resistance; otherwise it would have been cut. The tendo Achillis was divided subcutaneously. I would suggest the use of Esmarch's bandage in all cases of the kind. The wounds were dressed daily with balsam peru and oakum, and the feet kept extended upon a foot-rest which I devised for the purpose. A glance at the cut (*see Fig. 2*) will furnish a correct idea of its construction.

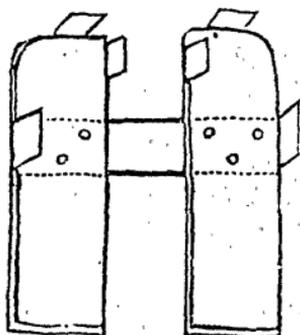


FIG. 2.

It consists of two boards the length and width of the foot, a little narrower at the heel than at the toe. screwed upon a plate of band iron one and one-half inches (38 mm.) and ten inches (25.4 cms.) long, the ends of which are turned up, projecting two inches (51 mm.) above the board, and just in front of the external malleolus. Another piece of the same iron is attached behind the inner malleolus. A leather loop is fastened at the end of the board, through which a bandage is passed and carried over the instep to prevent the foot from slipping back. The board and projecting irons are carefully padded. A few turns of a roller bandage secures the heel between the two fixed points. Now the bandage is carried over the instep from without *inwards* under the board, then between the board and foot from without *inwards*. Turn the bandage back over the foot from within *outwards*, and the toes can be drawn outwards to the desired extent, the foot being used as a lever between the fixed

points. The wound healed entirely in three weeks. The board was worn for fourteen weeks, which I think unnecessary, the patient using crutches.

Three times a *delicate point* of nitrate of silver was drawn through the bottom of the wound, which gaped one and one-half inches (38 mm.). This prevented the growth of granulations at the bottom of the wound, and allowed healing to take place from the sides by the skin gradually crawling downward into the wound. By this process, and keeping the feet constantly extended, the inner and shortened side was lengthened nearly an inch (25 mm.). The feet were flexed upon the leg by a cord passing from the end of the board to a strip of adhesive plaster secured to the leg.

Fig. 3 is from a photograph showing the result of the treatment—taken fourteen weeks after operation.



FIG. 3.

After photographing, a Sayre's shoe was put on the right foot, and an ordinary shoe with a stiff counter upon the left. The muscles are rapidly developing and sensation is perfect in both feet. The patient can walk rather awkwardly without shoes, the feet showing but little tendency to relapse. The theory that a cicatrix invariably contracts, drawing the parts to their original deformity, has, I think, been demonstrated by Dr. Alfred C. Post, of New York, to be incorrect. In his paper upon deformities from burns, recently read before this Society, the Doctor proves that if the parts divided be kept

upon the stretch until the wound is thoroughly healed the cicatrix will not contract and reproduce the deformity. If this is an established fact, and I think it is, why may we not lengthen the contracted side of the club foot by keeping it constantly extended after a free incision? In this patient I am sure that I did. The result in this case and others with which I have had to do has led me to arrive at the following conclusions:—

*First*, That division of deep structures lying contiguous to important blood-vessels and nerves should be performed by careful open incision.

*Second*, That in all cases of varus, in which there is a decided shortening of the inner side of the foot from the contraction of the tissues, free division of the contracted tissues by open incision and fixed extension of the parts is the shortest and most satisfactory route to a cure.

*Third*, That all cases of varus should be at once extended as nearly as possible to the normal position before any appliance whatever is put on them.

*Fourth*, When by manipulation and a reasonable amount of force and time the foot cannot be extended to a normal position, more can be done with a scalpel or a tenotome in five minutes that can be accomplished in weeks, and often months, by all the mechanical appliances known to surgery.

NOTE. Since reading the above paper I have operated upon another case—a little boy seven and one-half years old, suffering from an extreme equino-varus of the right foot.

Fig. 4 shows the foot before and twenty-eight days after the operation. The astragalus was subluxated forward, making a serious deformity. A large and painful bunion had formed over the metatarso-phalangeal articulation upon the dorsum of the foot, making the point upon which rested the weight of the body during locomotion. All tissues excepting the artery and nerve and long calcaneo-cuboid ligament were cut. It was with great difficulty that the subluxation of the astragalus was reduced after the incision was made. Each step of the operation and after-treatment enumerated in the case of the little girl was followed in this case.

The wound, which gaped one and one-half inches (38 mm.), and extended to the bone, was entirely healed by the fourth week. At this time an ordinary shoe with a stiff counter was put upon the foot, and the little fellow runs about, the foot



(FIG. 4.)

turning outward and being nearly free from deformity. I find that the cicatrix is somewhat sensitive, and has contracted but little. The inner side of the foot has materially lengthened. The atrophied muscles are fast regaining their normal tone and size. I had the pleasure of exhibiting this patient to Dr. Alfred C. Post, of New York, who called to this village just twenty-eight days after the operation and a day or two after putting on the stiff shoe. As to the extent of the deformity, age of the patient, mode of operating, duration of treatment, and general result, I think he will verify every statement made. In a letter bearing date April 30, 1881, the Doctor says:—

“You are at liberty to say that I have seen your patient upon whom you operated for talipes by open incision, and that I regard the result as a very remarkable success.”

In another letter, dated June 14th, 1881, he says:—

“I have operated on two cases of talipes equino-varus by open myo-tenotomy. The first case was that of a child three months old. The degree of the deformity and the rigidity of the parts involved were such as I do not recollect to have seen before in so young a child. I divided the skin, the plantar fascia, the flexor brevis digitorum, the flexor longus, flexor accessorius, tibialis posticus, flexor longus hallucis, flexor brevis

hallucis, abductor hallucis, etc. Having secured the vessels, I drew the foot nearly to its normal position and filled the wound with picked lint dipped in carbolized oil, ten per cent. I then applied adhesive plaster and bandages, holding the foot nearly in its normal position. I omitted to state that I made a subcutaneous division of the tendo Achillis. I performed the operation on May 7th, and on June 11th the wound was healed, and the foot when bandaged was brought into a position of slight flexion and abduction, that is, not only as far as the normal position, but a little beyond. The result was satisfactory in the highest degree. No tractive force was employed, except normal extension followed by a roller bandage and strips of adhesive plaster. The second case was that of a little girl two and one-half years old, under the care of Dr. Jacobi, at Mt. Sinai Hospital. Dr. J. requested me to operate, and I did so, following substantially the same course as in the former case. The case is not under my own care, and I have not been able to follow it up closely; but it is, on the whole, doing well."—*Transactions, Med. Society State of New York, 1881.*

**On the Origin and Cure of Scrofulous Neck.**—By T. Clifford Allbutt, M.A., M.D., F.R.S. (Leeds): The purpose of the paper was to insist upon the local causation and the local development of many cases of scrofulous neck. While giving due weight to the undoubted influence of the heredity in favouring this malady, yet that such states might be, and often were, set up in young persons by local causes alone was equally indubitable. Moreover, local causes played a large—perhaps chief—part in producing the malady in those originally strumous. Artificial scrofula was at least as common as the natural. Of local causes, irritation of neighboring mucous membranes was the most common; pharyngeal and aural-pharyngeal irritations being far the commonest antecedents, and the septic kind of these the most effective. The glandular enlargements were thus bubonic, and by caseous degeneration became themselves the foci of further like mischief. After minute inquiry into possible morbid influences acting through the mucous membranes, a rapid and complete cure without disfigurement must

generally be sought by surgical means. Free incision and enucleation of caseous deposits were essential. The softening mass under the jaw was usually a subcutaneous abscess with more or less thickened walls, which depended upon infection from the deeper lying caseous glands. With these it communicated by sinuous channels, often very obscure. Upon the laying open of these, and the cleaning out of the inner foci, cure and future safety depended. Many cases were given, in which Mr. Teale had co-operated with the author in carrying out those principles.

Mr. Treves (London) agreed with Dr. Allbutt that a spontaneous origin for scrofulous glands was very rare, if not doubtful. In nearly every case it was possible to make out some lesion at the periphery. Such lesion acted as the exciting cause only; and he must strongly oppose Dr. Allbutt's view, that scrofula might be due to local causes only. In every case there was, he believed, a tendency for the gland-apparatus, as well as the other structures, to react upon the most trifling irritation. This might be hereditary or acquired. In no perfectly healthy person could the gland-affections of scrofula be artificially produced. The most effective exciting causes of these tumors of the cervical glands were those that involved the adenoid tissue of a mucous membrane. Inflammation of the adenoid tissue of the pharynx caused almost immediate enlargement of glands, but an eczema of the face might exist for a long time before it produced such a result. The commonest seats for scrofulous tumors of glands were the neck, the bronchial region, and the mesentery; and it was significant that the glands in these regions received lymph from the largest districts of adenoid tissue in the body, viz., the naso-pharyngeal mucous membrane, lungs, and the lining of the intestine. It was important to recognize the fact that the gland mischief extended locally, and that one gland could infect its neighbor by the lymphatic vessels connecting them. He fully agreed with Dr. Allbutt as to the treatment of certain of these glands by operation. The treatment by incision was applicable only to a few cases, to glands few in number, and not yet adherent. The treatment by scooping out the contents of the gland was apt to lead to undermining of the skin and to

troublesome sinuses. The treatment he would advise was the cautery. The point of thermo-cautery was thrust into the middle of a gland in one or more directions. Through the sinus thus established the degenerate matter of the gland was gradually discharged. He had practiced this method in twenty cases with very good results.

Mr. Teale (Leeds) could in very many cases trace the beginning of enlarged glands of the neck to acute affections of the mucous membrane of the fauces, resulting from unsanitary conditions of life. The cases in which he had operated had turned out even more satisfactory than he had anticipated. These results were satisfactory; firstly, as to the effect in improving the health; secondly, as to the rapidity of healing; thirdly, as to the condition of the scar; fourthly, as to the absence of subsequent, and possibly consequent, enlargement of other glands. He had observed in the course of his operations that frequently the superficial abscess was fed through a small opening in the deep fascia, to be discovered only by careful searching by a director, and leading to a broken-down caseous gland beneath the sterno-mastoid muscle. He was also surprised how generally enlarged glands were in a caseous condition; so that in many instances he was able to eviscerate the degenerated gland-structure by Lister's scoop, leaving the gland capsule and some portion of a gland too sound to yield to the scooping-instrument.

Dr. Bowles (Folkestone) thought that, notwithstanding the graphic description of the causes of the disease by Dr. Allbutt, the causes were extremely probable only, but not proved. Confirmatory evidence was wanted. He drew attention to a class of cases of so-called scrofulous glands, which rapidly enlarged in anemic and delicate patients, and which were wholly unaffected by the usual tonic treatment, and were immediately relieved and cured by active saline aperients, followed by iron, and which left no trace behind. In these there was no evidence of local irritation.

Dr. Griffiths (Swansea) was much interested in the subject of Dr. Allbutt's paper. Nine months ago, at a local meeting at

Swansea, he expressed identically the same view as Dr. Allbutt had done, on the local causation and development of scrofulous glands in the neck. After considering the primary sources of irritation in decayed teeth, in the mucous membrane of the mouth, pharynx, and nares, he had pointed out that certain diseases of the ear and eruptions on the face and scalp, were frequently observed as the primary irritation in the causation of scrofulous glands in the neck. Three cases had been distinctly traced to wearing earrings. The first case, that of a young woman, ended in scrofulous phthisis. The second had a chain of diseased glands of the neck below the inflamed lobe, extending to the clavicle. She persisted in wearing the earrings till the glands in the axilla became affected. She then discontinued wearing the ornament, and the primary irritation being removed, the lobe of the ear healed, and the morbid action in the glands ceased. The third case was that of a woman of forty-five similar in every respect to the last, with the exception that a large abscess formed in the axilla. He had also no doubt that scrofulous glands in the mesentery (*tabes mesenterica*) arose, as a rule, in local irritation of the mucous membrane of the intestines. The child, living in mesentery conditions, being "out of sorts," was dosed with various drugs, and had diarrhoea, sickness, etc. No improvement was made in the diet, irritation of the mucous membrane of the intestines was kept up, and was followed by induration of the mesenteric glands. No doubt the same law was observed in the causation of scrofulous glands in the mediastinum. The primary irritation might be in the pleura, in the mucous membrane of the bronchial tubes, or even in the blood-vessels. Not long since he traced the primary irritation of a suppurating gland at the base of the heart to an atheromatous ulcer in the aorta. Though local irritation was the main factor, hereditary tendency also played an important part in some cases. The hereditary predisposition might be a tendency to the development of a local irritation on the skin, mucous membrane, or elsewhere; or it might be a tendency to the development of scrofulous glands.

Sir William Gull (President) was of opinion that affections and

enlargements of the glands of the neck were too often attributed to some defect, hereditary or acquired, in the constitution. Such a simple thing as improperly dressing the hair might give rise to enlargement of the cervical glands. When the irritation caused by improperly tying up of the hair had been relieved by a natural way of wearing the hair, the enlarged glands disappear.

Dr. Allbutt, in reply, said that there were different degrees of susceptibility to lymphatic enlargement. Some people could not, as it were, contract so-called scrofulous neck; others easily could, from very slight irritation or other cause. Again, a certain class of subjects (such as fair, blue-eyed people) could not bear peripheral irritation without secondary enlargement or inflammation, but these were not necessarily scrofulous.—*International Congress, Brit. Med. Jour.*

**Pulmonary Cancer.**—Sée (*L'Union Médicale*, January 22, 1881) claims that the following points are of value in the diagnosis of pulmonary cancer. First: A considerable amount of dyspnoea of a permanent character. Second: a sanguino-grumous expectoration. Third: considerable pain. Fourth: Dullness which does not elect any particular place, but develops and grows with the neoplasm and is found but on one side of the thorax. Fifth: The vesicular murmur is not present. Sixth: Local fremitus is not to be detected. Seventh: Slight displacement of the adjacent organs occurs. If the cancer be what Sée styles compressive, œdema, dysphagia, may occur and also variation in the radial pulses, if it presses on the subclavian artery. Phthisis is diagnosed from pulmonary cancer in the character of the expectoration, in the lesser amount of dyspnoea, by the quantitative difference in dullness and by the difference in soufflé and fremitus. The bronchial gland affections differ from the compressive type of pulmonary cancer by giving rise to not so intense symptoms. Aneurism of the aorta differs from pulmonary cancer in the presence of aortic bruit and pulsation. While these points are of value in differential diagnosis, it is obvious their value is not absolute as the cancer must have attacked the pleuræ to have produced pain, and the other symp-

toms will also be somewhat varied by the position of the neoplasm. Perhaps a good way of supplementing the diagnostic points given would be by a microscopical examination of the sputa.—*Chicago Med. Rev.*, Aug. 5.

### **The Mosquito as a Carrier of Disease.**—

A correspondent inquires whether there is “anything in the newspaper statement that mosquitoes are the agents for introducing dangerous parasites into the human blood.” We are pained to be obliged to say that there is good ground for this addition to the disreputable “record” of the insect. The discovery was made a year or more ago,—we cannot give the exact date,—and has since been fully confirmed by further investigation. Dr. Meisoner of Leipsic in a German medical magazine, has lately summed up what is known of the parasitic infection of the blood, and the following is an abstract from of what he says of the *filaria sanguinis hominis* :—This parasite has been very thoroughly studied by Manson, of Amoy, China and Bancroft of Brisbane, Australia. The filaria, while it may at times be present in the blood without giving rise to any symptoms, at other times appears beyond question to be the cause of chyluria elephantiasis, etc. The mode of its action would seem purely mechanical. The parasite in the blood or lymph channels and its accumulation at a given point gives rise to lymphorrhagia or inflammation. Two curious facts have recently come to light regarding this parasite. One is that the mosquito acts as a carrier; sucking the filaria with the blood of an affected person, it afterwards deposits the ova or embryos, which have meantime hatched, in the water when it lays its own eggs. These embryos are then swallowed in the drinking-water by another victim; and so the circle of disease is completed. Another and a very curious fact regarding the filaria was lately discovered; this is that it is a nocturnal parasite. During the day the filariæ lie dormant at some point in the victim’s circulation, but at night they sally forth and rove the currents of the blood the night long.—*Boston Journal Chemistry*.

### **Circulation in the Coronary Artery.**—

We observe a statement in some of our exchange journals to

the effect that Professors Martin and Sedgewick of the Johns Hopkins University have demonstrated the synchronous circulation in the carotid and coronary arteries. The old theory is that the mouth of the latter is closed by the position which the contraction of the ventricle gives to the aortic valve, and that the blood is not thrown into it until the subsequent contraction of the aorta, by which it is then supplied. The crucial experiment of the Baltimore professors consisted in introducing a canula in the coronary artery of a dog, and another in the carotid, and connecting each with a sphygmograph. The tracings of the two instruments were found to be synchronous, which is regarded as positive proof in regard to the question.—*Pacific Med. & Surg. Journal.*

**Enemata of Peptones.**—M. Henninger (*Paris Médical*, No. 29) gives the following formula for enemata of peptones. Five hundred grammes of very lean meat, minced fine, are placed in a glass receiver, on which are poured three litres of water, and thirty cubic centimètres of hydrochloric acid of density 1.15 ; to this is added two and a half grammes of the pure pepsine of commerce, at the maximum of activity, that is to say, digesting about two hundred times its weight of moist fibrine. It is left to digest during twenty-four hours at a temperature of 45 Cent. (113 Fahr.), either in a water-bath or a stove ; it is then decanted into a porcelain capsule, brought to boiling point ; and, whilst the liquid boils, an alkaline solution is poured into it (250 grammes of carbonate of soda to 1,000 grammes water), until it shows a very slight alkaline reaction. About 165 to 170 cubic centimètres of this solution must be added to it. When this result is obtained, the boiling liquid is passed through a fine linen cloth, the insoluble residue being expressed ; and this liquid, which amounts to about two and a half litres (three pints), is reduced in the water bath to 1,500 or 1,800 cubic centimètres. Half of it is administered every day in three enemata, adding two hundred grammes of white sugar for twenty-four hours. The whole of the meat is not dissolved ; the fat, the tendons, the connective and elastic tissues, form an insoluble residue, amounting to about a third of the meat used.

CANADA

# Medical and Surgical Journal.

MONTREAL, NOVEMBER, 1881.

RUDOLPH VIRCHOW.

The occasion of the sixtieth birthday of this renowned man has directed the attention of the profession and public to his extraordinary career, unexampled in the history of medicine. We have before us an address by Dr. Jacobi, delivered at the opening of the session at the College of Physician and Surgeons, in which he deals with the life and work of Virchow, and an article, for which we are indebted to the author, our friend, Prof. Ewald of Berlin, in which he treats of the influence upon clinical medicine of Virchow's work. The address of the former will be particularly welcome to English readers, as it supplies a long-felt want. In our remarks we shall draw largely from it.

Rudolph Virchow was born in Schivelbein, a small Pomeranian town, in the year 1821. He graduated at Berlin in 1843, and shortly after became Frorieps' assistant in the Pathological department, of which he obtained full charge in 1846. These early years witnessed the production of some of his most important works, as "Leukæmia," "Thrombosis" and "Embolism," the "Puerperal condition," "Septic infection," &c. In 1847 he founded his *Archiv for Pathological Anatomy and Physiology and Clinical Medicine*, which exists to-day in its 86th volume, the most important scientific journal in the profession. In 1848 he took part in the revolution in Berlin, and the following year edited the *Medical Reform*, a caustic publication, which brought upon him the wrath of the Government, and he was dismissed from his positions. The public and professional opinion was so aroused in consequence that he was reinstated, but shortly after

accepted a call to Wurzburg, where he remained, as Professor of Pathology, until 1856, when he returned to Berlin. The occasion of the completion of his 25th year as Professor in the University is to be appropriately celebrated on the 19th of this month. The contemplation of the amount of work accomplished by him in medicine alone is simply stupifying to an ordinary intelligence. In 1856 he published his celebrated "Versammelte Abhandlungen," a collection of his papers on scientific medicine. In 1879 was published "A collection of Treatises on State Medicine and Epidemics," in two large volumes, which contain numerous monographs, written between 1849-79, on "Subjects connected with public hygienic reform of medicine, epidemics and endemics, statistics of morbidity and mortality, hospitals, military medicine, cleaning of cities, school hygiene, criminal law, and forensic medicine." His lectures on Cellular Pathology appeared in 1859, and were translated into English. It is worthy of remark that the two *epoch-making* works in medicine and science—Virchow's Cellular Pathology and Darwin's Origin of Species—appeared in the same year. The work on Tumours—that monument of German science, as some one has called it—was published between 1863 and 1867. In addition to these are scores of papers and monographs scattered through the volumes of his Archiv and in the Transactions of various Societies. It may safely be said that there is no single department in the whole range of medicine that has not been enriched by his keen observations. Take up any special work which possesses an index of authors, and it is surprising the length and depth of the lines containing the references to his name.

In another department of science his name is pre-eminent. As an Anthropologist and Archæologist he ranks second to none, and his studies in these subjects have been most extensive. Among the ceremonies at the forthcoming celebration will be the presentation to him of the keys of an Anthropological Institute.

Outside of his professional and scientific pursuits, he has found time to devote part of his energies to the service of his city and country. For twenty-two years he has sat as "alderman," and has been the moving spirit in all the sanitary measures which

have been brought forward. Since 1862 he has represented one of the Berlin constituencies in the Prussian House, and has been one of the keenest of liberal politicians. Of his political life Dr. Jacobi says: "Bismarck has not found a more persistent and conscientious adversary than Virchow through all his parliamentary career. In regard to the latter, I will predict that among the German politicians who resisted to the utmost, lawlessness of absolutism, and claimed that law should be supreme, the rights of citizens respected, the office-holders know and live up to their duties, the constitution he carefully guarded and protected, and peace not rendered as exhausting and expensive as war, Virchow's name will, for all time, be mentioned as the first and wisest and purest." Only a few weeks ago the papers announced his return at the recent election by an overwhelming majority.

Many there are who begrudge the time he spends in these outside matters, but it should rather be a matter of pride with every member of the profession that we have in our ranks a man pre-eminent as a physician, a *savant* and a politician.

May he long be spared to adorn his profession and serve his country and humanity!

### Medical Items.

—Dr. Bibaud, Professor of Anatomy in Victoria College, died on the 18th October, after a very short illness. A few days previously he had a severe attack of cerebral hæmorrhage, with paralysis, under which he rapidly succumbed.

HÔPITAL NOTRE DAME.—We have received the first annual Report of this charity. The total number of admissions during the year has been 772; and the number of out-patients was 1,609. In the Eye and Ear department 269 patients have been treated.

THE HORNS OF A DILEMMA.—Cazeaux, in speaking of craniotomy, exclaims: "What physician is there, who, driven to elect between the life of his wife and that of the child in utero, would hesitate about that of the latter?" And Dr. Dagenais, *L'Union Medicale*, replies: "What physician is there, who, driven to

elect between a great *danger* to the life of the mother and the life of the child in the cradle, would sacrifice the latter? For, are we certain that the mother will die, and what difference is there between the life in utero just before birth and in the cradle just after birth?"

—M. Pasteur, it is stated, has resolved to visit the Bordeaux lazaretto to study yellow fever, and ascertain whether it be due to a parasite, and can be guarded against by inoculation.

—Mr. Wm. McCormac, the Secretary-General of the International Medical Congress, has been knighted in recognition of his services.

—The *British Medical Journal* calls upon the medical profession to take a firm stand against the obstacles thrown in the way of vivisection by the government of that country.

MORE ABOUT BIRTH MARKS.—The *Ohio Medical Journal* has the following good story, as told of a physician of Dayton, Ohio: The doctor was recently attending a case of labour in the family of one of his patrons, who, though a very excellent man, is a little slow in the payment of his medical bills. Immediately after the birth of the baby, the father nervously asked, "Doctor, is the baby marked?" "Yes," quietly replied the doctor; "it is marked 'C.O.D.' " It is needless to add that the bill for that baby was promptly settled.

—The *XIXe Siecle* relates of Dr. Nelaton that he was accustomed to say: "If you have the misfortune to cut a carotid when performing an operation, remember it takes two minutes for syncope to supervene, and as many more before death occurs. Now four minutes are four times the time required for a ligature, provided you don't hurry yourself—never hurry yourself."

—Speaking about the character of the attendants of a sick person, Dr. J. M. Fothergill says: "A pious widow, with dyspepsia and strong religious convictions, is a ghoul when illness is about. She sucks the life out of an invalid like a moral vampire. As life ebbs, she is sustained, and when the invalid has passed the portals of another world, she goes away edified, strengthened and encouraged in her murderous mission, fully prepared to extinguish the lives of any number of relatives if ill luck should prostrate them upon the sick bed."