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CANADA MEDICAL RECORD

NOVEMBER, 1899.

THE MEDICAL ASPECT OF LIFE INSURANCE.

By Dr. S. OAKLEY VANDERPOEL.

(Medical Director New-York Life Insurance Co.)

Life insurance stands prominently forward as one of the institutions of modern life that is eminently unselfish. We know that its object is the protection of those individuals whom death has deprived of their support, and that it entails self-denial and forethought on the part of the insured to meet his premiums, which fact, in itself, reacts upon him advantageously by engendering thrift and economy, and fostering the best feelings of our common humanity. It has been noted that the more the principles of life insurance are understood, the more certain are they to be appreciated and acted upon; and while they give to society a guarantee for the uprightness and honesty of the individual, he in return, assists in rendering more firm and stable the groundwork of the Republic; for the number of policy-holders in a given locality may be taken as a fair index of the prosperity of that community, as they afford direct evidence of the existence of those qualities—thrift, forethought and consideration of others—upon which our social comfort and happiness chiefly depends.

While not an American institution in the sense of having had its origin in this country, life insurance, as at present carried on, is peculiarly American, in that it here first became an important and necessary factor of our civilization. Carried on for many years in England and on the Continent in the form of small, private enterprises, satisfied with extending its benefits to those who sought them out, it remained for American energy to develop the institution into one of

the grandest benefactions which has marked the progress of human society.

Life insurance, while largely an economic and financial system, has an important medical aspect, and is carried on with the co-operation of our profession; in one form or another it enlists a considerable proportion of the energies of our fellow-practitioners. Most of you have probably, at one time in your lives, made examinations for insurance and many of you, I doubt not, now gain from similar work, a welcome addition to your professional incomes; and it is because of the peculiarly close relation of our profession to the business of life insurance that I feel justified in taking up your time with a brief consideration of a few of the many questions which that business involves. I think that the first impression of one unacquainted with medical work in life insurance—and I confess that I at one time shared in it—is that the physician well equipped in his profession should be able to conduct life insurance examinations, or to fill any of the functions of the life insurance expert, without any preliminary training. Very soon after taking up the work the practitioner becomes undeceived on that point; for not only is it necessary to become acquainted with the many details in which the various life and industrial offices differ among themselves, but speaking broadly and with reference to a matter of much more vital importance, it is necessary, it seems to me, for the physician to completely change his point of view with regard to the person whom he examines.

When examining for life insurance, most physicians who have not had much experience in such matters are very apt to begin their work with the idea that they are going to make a diagnosis—the whole mental attitude is that of the clinician who studies his case with a view to finding out in how many different organs the case under observation is unsound, or wherein the functions are not properly performed. This is a very commendable task for any physician to set himself to do, and he is indeed a capable man who is able to accomplish it. For purposes of life insurance work, however, this mental attitude seems to me to be wrong; by this I do not mean that a diagnosis is unnecessary, or that facts should not be

taken into consideration which have a bearing upon the central question involved. What I do mean is that the examiner should always remember that the central question is not—what is the matter with this man; but rather—how long will this man probably live?

The keen horseman looks at the horse in the paddock before the race, not with the eye of the trained veterinarian, but rather with a view to measuring his capacity to resist the exhausting strain of the race. In arriving at his conclusions he takes into account the horse's previous record, his pedigree, the care he has received in training, and so on; but the central factor in his mind is the condition of the vitality of the horse. It is just in this way that the medical examiner should measure the capacity of the applicant to live; and this is what I meant when I said that the practitioner when he examines for insurance must change his point of view. As our knowledge of the significance of other factors which enter into the value of a risk increases, we shall undoubtedly be able to estimate lives much more closely than we do at present; but this one of vital capacity, of ability to live, must always remain for the local examiner to decide; and he is the best examiner who learns to judge his subject most accurately from this point of view.

The medical aspect of life insurance, like other branches of medicine, has not stood still in the past ten years; not only along the business lines, but also along the medical, has progress been made. We, as medical men, have from time to time wondered at the action taken by insurance companies in declining risks with whose physical condition we, as physicians, were personally conversant, knowing as we did that the lives were insurable, even if they did possess some physical impairment, notwithstanding which, in our opinion, they had a tenure of life that should not have excluded them from the benefits of life insurance. How many cases have come to our knowledge of applicants for insurance who have first been informed of the presence of a cardiac murmur when they submitted themselves to the life insurance examiner, and which, in consequence of the findings of the examiner, the company has seen fit to decline. The appli-

cant has always considered himself a perfectly healthy man, has never experienced any of the subjective symptoms of cardiac disease, and consequently is greatly disturbed by the result of the examination. He then submits himself to his regular attendant, who, after a careful examination of his chest, informs him that there is a slight murmur, perhaps irregularity of his cardiac action; but assures him that in his (the physician's) opinion it is of little or no moment, and will not materially shorten his life.

This picture, as I say, is so familiar to us all that we are quite prepared with our answer to an applicant when one of our patients informs us that he has been declined insurance in consequence of heart disease, albuminuria or some kindred ailment.

It seems to us, therefore, as medical men, that life insurance companies in the past have been too rigid and stringent in their rulings. The reason for this conservative action on the companies' part is not difficult to find, for they (the companies) likewise recognize the fact that certain cases of heart disease do have a considerable longevity, and therefore ought to be insurable; but as the data upon which life tables have been calculated have usually been made up from selected lives, those in which an impairment occurs are necessarily to be excluded—a case must be considered as one of a class, and not as an individual.

This other side of the picture has shown itself to me in the past six years, during which time I have been associated with one of the larger insurance companies engaged in underwriting lives. When I first became interested in life insurance, this question of damaged, or sub-standard lives—as they are termed in insurance *parlance*—made a decided impression upon my mind, because these men as a rule are persons who really require insurance, and it seemed, if sufficient data could be obtained—for instance, on cases of cardiac disease—proper actuarial calculations could be made which would permit it.

The axiom which was enunciated by Mr. Babbage years ago regarding the insurance of selected lives is equally applicable to the sub-standard or under-average lives. He

said : " Nothing is more uncertain than the duration of life when the axiom is applied to the individual ; but there are few things less subject to fluctuation than the duration of human life in a multitude of individuals." Hence, all that is necessary for us to do as insurance men is to acquire sufficiently large groups of given impairments upon which calculations can be based.

This subject, namely, how to assess equally the value of under-average lives, has attracted the attention of insurance medical directors on the other side, as the late address of Dr. Muirhead before the British Medical Association at Edinburgh would indicate. So far as we are able to ascertain from Dr. Muirhead's address, no systematic attempt has been made to collect and differentiate the various impairments, for he states that he has no fixed and mathematically correct data by which to guide his decisions ; they have no " aggregate groups of persons suffering from the same disorder, though perhaps differing greatly in form, which might supply a basis by which to adjudicate upon the special case before him ; and if the extra rate recommended by the medical officers has in the past saved the company from loss, he is bound to admit that this happy result has been arrived at without the aid of any scientific formula, and by merely empirical methods.

The remedy suggested by Dr. Muirhead for this state of things is, to gather data sufficient to guide physicians in their estimate of extra risks, and to place them in a position to supply the actuaries with statistics upon which to calculate how much the acceptance of lives of unhealthy men is diminished in special groups of disease.

In the company with which I am connected, my *confrère* Dr. O. H. Rogers, has for the past six years been engaged upon this vast subject, and with the immense amount of material, at hand has separated these impaired lives into groups, and from these deduced his calculations. As yet, his work is not sufficiently complete to permit of publication, but before long he hopes to present this matter to the profession, and it will be the first and most extensive work on this topic which has yet been submitted. You can readily appreciate the difficul-

ties which have beset him in classifying the many thousands of damaged lives. Take, for instance, his study of tuberculosis ; it was first intended to limit the study of consumption in the family record to those cases which presented absolutely no other defect ; but it was soon found that, with our present knowledge of what constitutes impairment, it would be exceedingly difficult to draw the line between cases presenting only the impairment of a consumptive family record and those which present some other impairment as well. It was therefore decided to place in this group all cases presenting a family history of consumption, and the records consequently represent a slightly worse mortality than if the impairment was simply one of consumptive taint. This error, however, tends to offset the error just referred to, and gives weight to the conclusion that the results here arrived at are not far from correct. His search resulted in the accumulation of about 10,000 cases, of which 3,000 referred to policies not placed, the policies being applied for during a period of 15 years, and if kept in force carried for a maximum period of 25 years and a minimum period of 10 years. Almost all of these are of different lives, but the same life when insured at different times has been treated as so many separate lives.

In the accumulation of statistics, he has pursued a somewhat different method from that formerly in vogue—a study of the death records of a company. It seemed that if it were possible to study applications on all policies, say between the years 1870 and 1884 inclusive, no matter whether they were accepted or rejected by the company, and if these were reviewed and an abstract made of each case presenting a family history of consumption, a much more accurate idea of the impairment could be obtained than from a study of the death losses of the company alone. The life history of each case was then made out, and the fact noted whether the risk was still in force ; and, if not, the mode of termination, whether by lapse, purchase, death or maturing policy, was recorded—the record being made as of December 31, 1898.

As a result of these observations, which have included

all the other forms of impairments, such as rheumatism, albuminuria, albuminuria associated with Bright's, cardiac, glycosuria, simple excessive overweight and underweight,—I say, as a result of these, it has been possible to offer insurance upon a scientific basis to proponents who formerly were denied the benefits to be derived from it. Therefore we are in a position to instruct our medical examiners throughout the country to the effect that we are now able so to measure these impaired lives as to offer them some desirable form of insurance, and, in consequence, it becomes necessary for them, in examining such cases hereafter, to give us the fullest possible details of any impairment, whatever its character or degree, so that we may have before us data on which to base an intelligent estimate of the insurance value of the risk, and they should therefore submit the risk subject to the unfavorable features thus fully described by themselves.

If, for instance, it be a mitral murmur, we desire to know first, whether it is systolic or diastolic, the position of the apex, the compensation and the character and frequency of the pulse; the examiner then submits the risk subject to the aforesaid findings. This relieves the examiner entirely from the responsibility of accepting or rejecting an individual, and places that responsibility where it belongs—upon the Home Office of the company.

Another matter of importance to which I should like to ask your attention for a moment is that of the peculiar difference of mental attitude between the patient and the applicant for insurance. When he consults you, your patient gives you a full and frank history of his case; he endeavors to lay all the facts before you; he comes to get your advice and assistance, and his whole mental attitude is without reserve, and is one of co-operation.

When he is a candidate for life insurance the case is very different; his memory for details is less acute, he forgets facts which, as a patient, he would be likely to remember; his state of mind is one of antagonism. I do not mean by this that most persons, when they are examined for insurance, give what they know to be anything less than

the facts ; I do not believe this is the case. A person presents himself for examination with the idea that he is a good risk, and his bias of mind in that direction is so strong as to color (I doubt not, unconsciously) much that he tells you. On this account a medical history for life insurance is a very different matter from that which you will obtain from your patient. It requires time for any physician to learn to adjust himself to this very dissimilar mental attitude. The skilled medical examiner has learned this lesson and practices it.

Life insurance is a question of large numbers of lives, and the examiner should cultivate the habit of mind which expresses itself in terms of lives. He should ask himself,— if I had 1,000 such persons as this I am now engaged in examining, would they probably live as long as a similar number of other healthy lives ? Or, if not a good life, how much more rapidly will 1,000 persons like this I am now examining die as compared with 1,000 healthy lives ?

The first of these questions places before the examiner the problem which he is expected to solve by his study of the case. The second, while formerly quite unnecessary, is now being urged upon those who work in this branch of medicine, by reason of the tendency among life insurance companies to broaden the field of their beneficence so as to extend the benefits of insurance to those persons who, in consequence of some impairment, have heretofore been regarded as quite uninsurable. In England it has been the practice for many years to offer insurance at special rates to persons of unsound health, not seriously diseased, but impaired by reason of valvular lesion of the heart, albuminuria, asthma, gout, and so on ; but with us, until very recently, all these conditions have been regarded as either bars to insurance or as requiring the limitation of the insurance to very short periods of time on endowment plans. Now, however, since the work has been taken up systematically of offering insurance to these impaired lives, I do not doubt that very soon American energy will again push us far in advance of our Transatlantic cousins. This brings up several questions which have been the subject in times past

of deliberation by this Society, such as : Should life insurance companies extend the benefits of insurance to persons whose urine contains albumen, *i. e.*, the so-called cyclic albuminuria ? Or, should they disregard some types of heart murmur or low grades of emphysema or true spasmodic asthma ? It is not my purpose to occupy your time to-night with a consideration of such questions as these ; they may well serve as profitable subjects for some of our future meetings. Behind them all, however, lies a fact which is vital to all of them, and to which I may briefly refer in closing without imposing too much upon your indulgence.

The success of a life insurance company is a question of careful management, and includes not only the questions of expense rate and of interest rate, but also the question of death rate, and this factor of death rate needs to be guarded just as carefully as that of interest rate or of expense of management.

I think we shall have a better idea of this mortality element if we assume, as a concrete example, that the membership of a company is made up entirely of persons at age 30; the ratio of deaths to the total membership in this imaginary company during the 1st year would be only 8.43 per 1,000 ; during the 2nd year, only 8.51 per 1,000 ; during the 10th year, 9.79 per 1,000 ; during the 15th year, 11.16 per 1,000. Now, let us suppose that we introduce into the membership of this company cases not quite up to the standard, and that on account of their various impairments 3 additional deaths per 1,000 occur in the 1st year, and that this excess of mortality is continued year after year, so that in the 15th year it amounts to an addition of 4 deaths per 1,000. Surely this increased mortality seems to us very slight compared with the mortalities we are accustomed to in our studies as medical practitioners ; and yet the addition to the death rate from year to year of these numbers increases the mortality by 33 per cent.—an increase which, in the long run, would seriously disturb the stability of any life company. Indeed, the membership in any life company must be made up of lives among which the mortality will not exceed the expected rate, not only during

the earlier years of their membership, but also during the later years.

This brief explanation will suffice, I think, to show why life companies are conservative in the matter of insuring persons with albuminuria, heart murmurs and other similar impairments. It may be perfectly true that cyclic albuminuria, some favorable forms of heart disease and other similar impairments, show very little additional mortality in the earlier years. Granting that this is true, it is only necessary that they should show a slight additional mortality to make them very doubtful risks; and which of us is prepared to affirm that, as they advance in years, this excess of mortality will not increase.

Looked at from this point of view, I am inclined to believe that many of you would hesitate to affirm that such persons are normal lives. In the face of this test of years of exposure, the criticism so often heard that life insurance companies are not justified in rejecting albuminuria falls to the ground.

Selected Article.

THE TREATMENT OF INCIPIENT PHTHISIS AT HOME.

By J. HOWE ADAMS, M.D., Overbrook, Pa.

If the physician is compelled to keep the patient in his own home it is well to formulate some definite plan of treatment, of which the following outline has been in my experience the most satisfactory. The first thing in the line of treatment is to realize the necessity of keeping the patient out doors and in the sun as much as possible. The cold weather is no contra-indication to keeping the tuberculous patient out of doors as long as it is clear, dry and not too windy. If, however, fever exists, it is perhaps well to keep the patient at rest; he can then be put in an invalid chair and occupy the sunniest room in the house. He should be very warmly wrapped up and the window should be kept open as much as

possible from time to time, taking care to see that there are no circumscribed draughts, such as from cracks, etc.

At night time the room in which the patient sleeps should be well ventilated, and yet at the same time the temperature of the room should be kept moderately high and the raw air of night should be warmed.

The question of the clothing of the patient is of the greatest importance; the underclothing should be of pure wool, so that the patient is protected from sudden chilling of the body, and if there is sweating the perspiration is absorbed and the body kept dry. This consideration of clothing should include even the question of stockings. The physician should see that the patient gets plenty of good, nourishing food; especially is plenty of meat particularly necessary. The patient's digestion should be carefully watched and guarded, and consequently the greatest discretion should be exercised in feeding. Plenty of milk, if it agrees with the patient, is very desirable.

The question of feeding "fat" to tuberculous patients is one that is of the greatest practical importance. There is no doubt that fat is one of the vital constituents of the body. It acquires great importance from the fact that it disappears on the first onset of phthisis and comes back only as the patient improves in health. The use of the scales for weighing patients in this disease is a practical admission of the value of keeping or acquiring adipose tissue. Therefore if the physician can supply fat to his patients, he is doing what nature expresses in her cure of the disease.

It is well to study the physiology of metabolism before deciding whether the feeding of fat to a consumptive patient is going to secure the desired results. Does the fat consumed by the patient turn into fat, or does the human economy manufacture its own fat? Liebig showed years ago that fatty and saccharine foods do not supply exclusively the fat in the body; it is well known that the butter in a cow's milk far exceeds the scanty amount of fat which she eats, while in the bee it is demonstrated that she produces far more wax than can be explained by the amount of sugar she obtains. It has been proved by experiments of Lawes and Gilbert "that for every 100 parts of fat in the food of fattened pigs, 472 parts of fat were stored up," which shows, apparently—for the human being is very like the pig, at least in digestive powers—that only about one-fourth of the fat consumed comes from fatty foods.

Dr. Thomas J. Mays, who has worked in this field, has given us the clearest explanation of the process by which the fat is stored up in the economy.

“The fat of the body is contained in cells which are composed of protoplasm and possess nuclei. These cells abound in the interstices of loose connective tissue, and are found under the skin, especially in the soles of the feet, the palms of the hands, buttocks, female mammary gland, around the synovial capsules of the joints, in the orbits, in the medullary canals of bones, in the surroundings of the kidneys and the omentum, and on the surface of the heart.

“When an animal fattens it appears that oil globules are formed within the fat cells. These globules increase in number, while the protoplasm of the cell diminishes. These globules are not deposited in the cells in a mere mechanical manner, but they are formed by the cell itself, and at the expense of its own protoplasm, which becomes very much attenuated. It seems, therefore, that the fat of the body is as much a secretion of the fat cells as pepsin is a secretion of the peptic glands, or as the oily matter of the skin is the secretion of the sebaceous glands, or as the fat of milk is the product of the cells of the mammary gland.”

That proteids form an important source of fat in the body is evidenced by the following facts: Microscopic observation shows that the fat of milk is formed by the epithelial cells of the mammary gland through the probable metabolism of protoplasm. Fat in milk is largely increased by albuminous, and diminished by fatty foods. When cheese “ripens,” its proteids are converted into fat. Milk sugar is maintained in abundance in the milk of carnivora, even when fed on an exclusive meat diet. Fatty degeneration, as is often witnessed in the heart and in other important organs, is further evidence that proteid substances are converted into fat.

By this I do not wish to convey the idea that albuminous foods supply the greatest part of the fat to the body; we know that this is done by the carbo-hydrates; but I desire to lay special emphasis on the fact that fats and oils do not play the important part as foods which they are properly supposed to do in the nutrition of the animal body, and on the further facts that proteids are of greater value as fat producers in pulmonary consumption than they are generally believed to be. In fact, evidence is not wanting to show, as has already been hinted at, that both fats and carbo-hydrates diminish the metabolism of the body, while a meat diet enhances the same, increases the oxydizing activity of the body, multiplies the number of red blood corpuscles, and leads to a rapid consumption of fatty and carbo-hydrate food. A great deal of harm has followed the doctrine that the fat of the body only comes from the fat of the food, and therefore the only way to fatten a consumptive is to ply him with fats and oils of

various descriptions. Every experienced physician knows that oils and fats produce dyspepsia in many such patients, and do no good in some with whose digestion they seem to agree, while there are a few who thrive under their use. It seems to me that oily and fatty foods only confer a real benefit on a minority of consumptive sufferers, and that much greater service is rendered to the nutrition of such patients by the administration of albuminous foods, the important ones among which are freshly expressed beef juice, beef, mutton, lamb, milk, eggs, oysters, clams, liquid peptonoids, beef powder, meat juice, beef peptones, etc.

The proper status of giving fat in this disease is undoubtedly in allowing the stomach to be the guide. Give up fats to the point of toleration, but be careful not to get beyond. In the hands of many practitioners "forced feeding", has proved of great service in the treatment of these cases. In this procedure the stomach is washed out and the patient is given two pints of milk, to which has been added eggs and powdered dried beef. Again it is well to remember the general maxim that anything is valuable which will improve the condition of the patient.

Whiskey and the various forms of alcohol given indiscriminately are not desirable, as alcohol is not in any sense a remedy for this disease; but given in combination with cod liver oil it is very useful in promoting the assimilation of the oil. It can be given very nicely in the following manner: Put one-half ounce of whiskey in a conical wine glass, and on top of this place one-half ounce of cod liver oil; this is to be taken just before retiring and the same amount to be repeated in the morning. By taking it night and morning in this manner time is allowed for the stomach to get rid of one lot of the oil before the next is taken. The whiskey is not given especially for the purpose of masking the taste of the oil, but rather for the double action so produced.

Whiskey and cod liver oil are not specifics or even remedies for tuberculosis, but as they improve the patient's general condition they indirectly help to combat the disease.

The systematic teaching of chest expansion is a great factor in the prevention or control of this disease in its first stages. In my experience it has been attended with the most gratifying results. If the medical profession would make a united effort for the adoption of the teaching of the proper method of breathing, much could be accomplished in the stamping out of this disease in future generations. It has been stated that our breathing surface is one-fourth greater than is necessary, but is it reasonable to believe this? The great strength of the lion and tiger is due largely to their

great capacity for breathing; the professional bicycle rider must develop "wind" or he is useless. If a physician can examine the great athletes, especially those accustomed to prolonged exertion, such as bicycle riding, he will be surprised at their chest expansion. I saw Sandow's expansion measured, and it reached the enormous total of 14 inches; the effect close to him was as if the athlete had some powerful engine which forced his ribs in and out. And yet Sandow told me that at eighteen he was a delicate lad who was ordered to take up exercise to regain his health.

The lungs are not simply to purify the blood of carbonic acid, but also to give health and strength to the whole body.

Nearly all children at birth have well developed lungs, and their blades do not stick out, but are flat against the chest. Nature always does the best that is possible under the circumstances, and when all preventative influences are removed will often do wonders, both in fortifying the system against disease and in recuperating wasted energies. How important it is that in youth, and in the vigor of manhood, and through all the years that the scapulas should remain flat against the chest, the weight of the arms and shoulders inclining backward taking their weight off the chest, thus always expanding instead of contracting.

When a child arrives at a suitable age to attend school it should receive the same careful training physically that it does mentally. Physical culture should occupy as prominent a place as any of the sciences that are taught. Some form of exercise for chest expansion that may be deemed the most suitable for the school room should be practiced at each session by every pupil at least ten minutes, an extra supply of fresh air having been previously admitted to the room. This would soon become a luxury for the children, and they would return to their studies with greater zeal and energy for the invigorating exercise. They should be required to sit erect, and encouraged to walk erect when out of school. Monthly reports should show results obtained by these exercises; in fact, should be included in term averages, as required for promotion.

Deep breathing, with moderate exercise (in a cool room or open air) of muscles of the chest does not exhaust, but is invigorating to wasted energies; rest is sweeter and sleep more refreshing after such exercise, which should be regulated according to the strength and condition of the patient.

When it comes to the question of the consideration of medicine, although the number which have been proposed is legion, the physician's armamentarium is practically not a large one. Creosote is undoubtedly a useful drug in pulmon-

ary tuberculosis, and it can be given in combination with cod liver oil. It can be given at first in one minim doses and then increased to about 10 minims three times a day.

The creosote should never be given in the form of capsules, because when the capsule dissolves in the stomach it releases at once and at one spot a considerable quantity of an irritating substance. It should be given either in pill form, in alcohol or in hot water. Sherry wine also forms a good vehicle for its administration. Creosote is not now regarded as a specific for tuberculosis, but it acts on the bronchial tubes, relieving and lessening the cough.

Opium or its alkaloids can be given, and they frequently do good by relieving the irritating, hacking cough and increasing the tranquility of the patient. Very often happy results follow the administration of paregoric in the early stages of the disease. It should be given in one or two teaspoonful doses at bed-time for the purpose of controlling the cough and obtaining for the patient a restful quiet sleep. But no cough mixture, sedative in character, should be allowed in the morning, for at this time the patient should be permitted to cough up the material that has accumulated in his lungs during the night. In this way it is possible to get rid of a considerable amount of septic material that otherwise would remain in the lungs causing irritation, and some of which would undoubtedly be absorbed, producing an increase of fever, upsetting the digestion of the patient and dragging down his general health.

If paregoric is found to be inefficient in controlling the cough a sixth or a quarter of a grain of morphia may be given hypodermically. For the night sweats atropine, in doses of from 1-100 to 1-60 of a grain, is by far the best drug, but at the same time it may be found of advantage to sponge the patient off with a solution of alum and water.—*Medical Times*, August, 1899.

Progress of Medical Science.

MEDICINE AND NEUROLOGY.

IN CHARGE OF

J. BRADFORD McCONNELL, M.D.

Associate Professor of Medicine and Neurology, and Professor of Clinical Medicine
University of Bishop's College; Physician Western Hospital.

TREATMENT OF VERTIGO.

Philip Zenner sums up the differential treatment much as follows (*Cincinnati Lancet-Clinic*, June 10): Remove external causes, tobacco or other toxic agents. Remedy bodily conditions acting as exciting causes, such as ocular defects and stomach disorders. Attend to constitutional derangements, for instance anemia and neurasthenia. Lessen the irritability of nerve centers with bromides, aided by belladonna, aconite or phenacetin, and make the improvement permanent by means of a general tonic treatment. Labyrinthine disease, due to gout, rheumatism or syphilis requires the usual appropriate remedies. Counter-irritation over the mastoid, with blisters or cautery, may afford some relief. Small doses of the iodides, nitroglycerin and stimulants are useful in the vertigo of arterio sclerosis.

TO ABORT A COLD.

Max Nassauer asserts that an incipient cold in the head can be checked if the nose is thoroughly rinsed out with a weak (pale pink) solution of potassium permanganate, which seems to have a specific action upon the germs of coryza. It checks colds in the first hour or so. After blowing the nose vigorously, both nostrils are well rinsed out with the solution, the fluid being allowed to run out through the other nostril and through the mouth. Each nostril is wiped out with cotton on the finger. A small dry plug of cotton is then pushed well up into each nostril, and the nostrils are filled with the weak solution, with the head held back, the cotton being allowed to soak it up. The plug is left undisturbed for about an hour, when it can be expelled by blowing the nose. Even an established cold is favorably influenced by this treatment, but it is most effective when the sneezing, tickling and increased secretion announce the onset of the attack.—*Practitioner; Lancet-Clinic.*

DIPHTHERITIC PARALYSIS.

The treatment of this symptom is laid down much as follows by Francis Huber (*Pediatrics*, June 1): Absolute rest, good food, good air; iron in a digestible form; strychnine in full doses by the mouth or, in severe cases, hypodermically in the cervical and clavicular regions; careful massage of the extremities; electricity, artificial respiration, rhythmic tongue-traction and strychnine subcutaneously if respiration is endangered. The author writes of a child, thirty months old, to whom one-fiftieth grain strychnine nitrate was administered hypodermically twice a day for two weeks, and then once a day for some weeks longer, with excellent results.—*Denver Medical Times*.

TREATMENT OF HERPES ZOSTER.

In the milder types, excellent results have been obtained by Cantrell (*Maryland Medical Journal*, June 10) from one of the following applications, used several times daily: One part bismuth subnitrate to seven parts of petrolatum or zinc oxide ointment; one-half or one dram salol in an ounce of ether; one or two grains of morphine sulphate in an ounce of lanolin. The affected parts should be well covered with the medicament, and pieces of linen should be laid over in such a manner as to protect from friction and pressure. In extremely sensitive and painful cases, collodion or ichthyol (a dram to the ounce) may be applied, layer over layer, several times a day with a camel's hair brush. In some cases soaking wet cloths give the most relief, and in others ichthyol in full strength. For excessive pain the writer also recommends painting thrice daily with morphine in collodion, a grain or two per ounce, or with a solution of fifteen grains of acetanilid per ounce of ether. Internally mild cases may receive potassium bromide. For lowered vitality, three or four drops of Fowler's solution or one-thirtieth grain arsenious acid, three times a day, is of service. Patients greatly run down should be given iron or strychnine, or both in combination.—*Denver Medical Times*.

STARCH DIGESTION IN THE STOMACH.

A. E. Austin (*Boston Medical and Surgical Journal*, April 6, 1899) has made some experiments with reference to the digestion of starch in the stomach. The importance of such a study may be inferred from the statement that two-thirds of the food of the body consists of starch in its various

forms. The ferment used in the writer's experiments was taka-diastrase, which was employed because of its remarkably strong amyolytic power. The results of his experiments establish the following conclusions:

Taka-diastrase digests starch with remarkable rapidity in a neutral or slightly acid medium, and its rapidity is directly proportional to the quantity of taka-diastrase used. Taka-diastrase in the above medium is capable of digesting three hundred times its own weight of starch in one hour.

The digestion of starch by taka-diastrase is accelerated and enhanced by the presence of a small quantity of free hydrochloric acid, while beyond a certain amount the free hydrochloric acid retards, and eventually arrests the diastatic digestion.

The digestion of starch by taka-diastrase is not interfered with by organic acids. On the contrary, the presence of a small quantity of organic acid enhances the diastatic digestion of starch.

The presence of albumin combined with hydrochloric acid seems to lessen the hindering action of free hydrochloric acid on starch digestion.

Albuminous foods, both of animal and vegetable origin, combine with, or neutralize, free hydrochloric acid of gastric juice, making the acid perfectly inert. The combined hydrochloric acid has no hindering action on diastatic digestion by starch.

In dogs' stomachs, when albuminous foods are given with starchy food, no free hydrochloric acid is found at the end of one hour, and in the meantime starchy foods are perfectly digested.

In the human stomach, when an ordinary regular meal is taken, the albuminous matter of the food combines with the hydrochloric acid of the gastric juice as fast as it is formed, at least for a period of one hour, and such combined hydrochloric acid has no hindering action on starch digestion, and the diastatic digestion of starchy food is practically completed within that period.—*Medicine.*

SOME POINTS CONNECTED WITH SLEEP, SLEEPLESSNESS AND HYPNOTICS.

Bradbury (*British Medical Journal*, July 15, 1899), in his Croonian lectures, makes some practical suggestions upon insomnia and hypnotics which are worthy of careful consideration. He states that the great principle of therapeutics—the removal of the cause—should ever be kept in

mind. The causes of insomnia may be classed under four heads—irritative, toxic, psychical and those arising from change in the mode of life.

(1) *Irritative Causes*.—This class includes all forms of insomnia caused by pain and milder irritations—teething, indigestion, worms, eye-strain, inconvenience of faucial adenoids, cold feet, asthma and vesical irritation.

(2) *Toxic Causes*.—Under this head may be mentioned alcoholism, gout, nicotism, gastric and intestinal disorders, Bright's disease and excessive use of beverages.

(3) *Physical Causes*.—Grief, shock, worry and mental anxiety are among the most frequent causes of insomnia.

(4) *Causes arising from the Change in the Mode of Life*.—Eating late dinners by those unaccustomed to them and change of climate sometimes give rise to insomnia.

After removing the cause, hypnotics are often of great value in breaking the habit of sleeplessness. The best of these for any individual will vary according to his condition. There is no absolutely safe one, but experimental investigation and clinical experience show that paraldehyde stands in the first rank. Chloralamide and chloralose are safer, but slower in action than chloral hydrate, and of the two the author prefers chloralamide. The sulphones (sulphonal, trional and tetranal) are also valuable, and in practice he has found sulphonal the most valuable of the three. On the whole, the bromides seem to be the least harmful, and in simple cases, uncomplicated by other disease, it is his practice to try them before resorting to any other drug.

Sleeplessness from overwork, and especially literary work, requires mental rest and change of air and scene. Temporary exposure to the cool air of the bedroom, or the wet pack, or a bath is often useful, and so is a glass of whisky and water at bed-time, especially in those unaccustomed to the use of alcohol. Twenty grains of sulphonal, or thirty or forty grains of potassium bromide, may be given to break up the habit of sleeplessness. Capsules containing thirty minims of turpentine, given at bed-time, are sometimes beneficial in the insomnia of overwork and worry. The drug acts as a stimulant and derivative, and is stated to act best in plethoric cases. No beverage containing caffeine should be taken after breakfast. In nervous and hysterical women, and especially in women at the menopause, the bromides are very useful. The writer has long been in the habit of giving a mixture of bromide, tincture of sumbul and tincture of hops, in camphor-water at the climacteric; and it has helped to remove the insomnia as well as the mental

depression and flushing heats so common at this period. In pneumonia sleep comes usually at the crisis; but where this has not occurred, he has occasionally seen a hypnotic, such as chloralamide or paraldehyde, turn the scale in favor of the patient. In pleurisy five to ten grains of Dover's powder usually conduce sleep, mainly by relieving the pain. A hypodermic injection of morphine may be given with the same object in view. In bronchitis, chloral and chloralamide are safe hypnotics, and, as a rule, opiates are to be avoided, as they depress the respiratory centre. The insomnia of heart-disease is benefited by cardiac tonics; but in some cases it is necessary to resort to morphine, either by the mouth or, still better, hypodermically. Paraldehyde and chloralamide are most useful in the writer's experience. Ice to the head is recommended by Morison, where the vital forces are not too low or the temperature subnormal. It often produces sleep rapidly, with a more regular cardiac action. In chronic Bright's disease insomnia is occasionally very troublesome. Eliminants, such as aperients, should be tried, and if they do not succeed chloral hydrate may be given; the drug is safer in kidney-disease than in heart-disease, the reduction of blood-pressure being usually more beneficial than otherwise. Morphine and hyosine subcutaneously injected have been recommended in obstinate cases; but their employment requires great caution. Erythrol tetranitrate, by reducing arterial tension, often acts as a charm even when sedatives fail. In cases of neuralgia, locomotor ataxia, and so forth, some of the synthetic analgesics—phenacetine—are of value. These drugs act also as hypnotics in cases where there is no pain. Calcium chloride is a valuable remedy in the insomnia due to pruritus. But when pain is the casual factor of insomnia, morphine is the best general remedy, and this should be pushed until relief is afforded.

NIGHT TERRORS, SYMPTOMATIC AND IDIOPATHIC, WITH ASSOCIATED DISORDERS IN CHILDREN.

Guthrie (*Clinical Journal*, June 7, 1899) concludes a paper on the above subject as follows:—

(1) Night-terrors are always to be regarded as evidence of ill-health.

(2) They may be divided into symptomatic and idiopathic night-terrors, according to their origin.

(3) Hallucinations of vision are mostly caused by a febrile disturbance.

(4) In some cases the content of the dream may throw light on its cause.

(5) The character of the dreamer is of more importance than that of the dream.

(6) In simple cases simple treatment based on the cause is sufficient; but in idiopathic cases the environment and nature of the patient have also to be considered.

Sedatives are very useful in all kinds of night-terrors they should be given at bed-time for a few nights. In symptomatic cases paraldehyde in doses of fifteen to twenty minims (for a child of five years) is very effectual. Ammonium bromide may be given in combination with other drugs, such as iron, bismuth, rhubarb, castor-oil, gentian and so on, as the case may be. Cardiac stimulants, or bitter or other tonics, may be combined with bromides. Quinine does not agree with highly neurotic children: it should always be combined with hydrobromic acid.

CEREBRO-SPINAL MENINGITIS.

The mortality records show that we have been having in this country a mild but extensive epidemic of cerebro-spinal meningitis during the last year and a half or two years. This is the fourth irregularly wave-like outbreak in the United States within the present century. It is believed by many that the crowding together of soldiers under unhygienic conditions aggravated the epidemic.

In Columbus for the year 1898 there were sixteen deaths from epidemic cerebro-spinal meningitis. In three of the principal hospitals there were, for the year ending July 1, 1899, nine cases diagnosticated cerebro-spinal meningitis, with six deaths,—a mortality of sixty-six per cent. In the first six months of this year we have had thirty-four cases of meningitis, including the cerebral, tubercular and cerebro-spinal, there having been no bacteriologic classification of the cases made.

In a recent epidemic in Boston of 11 cases in three hospitals $68\frac{1}{2}$ per cent. were fatal. The Boston City Hospital reports a mortality of fifty-nine per cent. in thirty-nine cases. Of a series of cases reported in St. Louis recently eighty per cent. were fatal. In a late epidemic in Chicago thirty-eight cases were reported, with a mortality of sixty-five per cent. The disease has been much more frequent in the United States for a number of years past than in other countries. Very naturally there has been a corresponding increase of interest in this disease, and much has been added to the literature upon the subject.

Among the notable papers which have been prepared recently is the Cavendish lecture on cerebro-spinal fever, by Dr. William Osler. It is an exhaustive and valuable address, probably the very best brief summary that has been made of the epidemic and clinical features, etiology, bacteriology, complications, and treatment of the disease.

The subject received considerable attention at the recent meeting of the American Medical Association, as may be seen from the brief report in this issue of Dr. T. N. Miller's valuable paper and the discussion which followed on cerebro-spinal meningitis. The discussion of this subject in the Association and the Cavendish lecture of Dr. Osler brought out prominently a few interesting facts relative to cerebro-spinal fever.

First, that it is one of the most fatal of the acute diseases. As stated by Dr. Osler, no fever attacks so few individuals in a community during its periods of prevalence, and probably no other known fever kills so large a proportion of those attacked.

Second, that the diplococcus intracellularis meningitidis, discovered and named by Weichselbaum in 1887, is now very generally regarded as the specific cause of the disease. It is sometimes called for convenience meningococcus. This is undoubtedly the specific germ of cerebro-spinal fever, though there are many cases of leptomeningitis which are diagnosed in ordinary practice as cerebro-spinal meningitis which are due to other pathogenic germs. Of twenty cases recently analyzed from the pathologic department of Johns Hopkins Hospital, six were true cerebro-spinal fever in which the diplococcus intracellularis meningitidis was found. In eight cases pneumococcus was present, and seven cases were hyogenic meningitis, in which streptococci or staphylococci were found. The observations of Weichselbaum have been fully confirmed by the work of Heubner, Councilman, Mallory and Wright.

Third, that lumbar puncture is of great value in diagnosis, and can be done in the majority of cases without the aid of local anesthesia. The puncture is usually made in the second or third interspace. "During the last ten years," says Dr. Osler, "no single measure of greater value in diagnosis has been introduced than Quincke's lumbar puncture." The discovery of general infection and the meningococcus in the inflamed joints is of special interest since it furnishes the probable etiology of the arthritis which is frequently associated with cerebro-spinal fever.

Fourth, that, as stated editorially in the *Medical News*,

the germs of the disease are practically universally present, and that only a favorable opportunity is necessary, as when the resistive vitality is low to give the disease a suitable nidus, and after its passage through a series of susceptible organisms it takes on a virulence that makes it fatally epidemic in character.

Fifth, that the germs, which, until recently, were believed to be only in the meningeal lesions, have been found in the blood and inflamed joints (*Johns Hopkins Bulletin*, June, 1899). This observation has been elsewhere confirmed.

Sixth, that the diplococcus intracellularis has been found (Schultz) in the cerebro-spinal fluid of a case of typical anterior poliomyelitis, suggesting the possibility of an intimate relation between these two affections.

Seventh, that Kernig's sign is found in the great majority of cases of cerebro-spinal fever, usually present in about eighty to eighty-five per cent. Netter's observations on forty patients were that this sign is present in ninety per cent. of the cases. The symptom, first observed by Dr. Kernig, of St. Petersburg in 1882, is a contracture inflexion of the legs, which may be elicited by placing the thighs at right angles with the body, the patient being in the dorsal decubitus, or sitting posture, when it will be found that the knees are more or less flexed and cannot be extended until the thighs are placed in line with the body.

Eighth, that laminectomy has been performed in a few cases with results that justify a further trial. Dr. Williams, of Boston, has reported beneficial results, and a few others claim that the severity of symptoms may be promptly mitigated by the removal of a variable amount of spinal fluid. In two cases at Johns Hopkins, laminectomy was performed and the canal drained and irrigated, but without conclusive evidence of change in the course of the disease. Dr. Rolleston and Herbert Allingham report (*Lancet*) a case of cerebro-spinal meningitis in which recovery took place after laminectomy and thorough drainage. Opium, iodides, calabar and ergot are still the principal drugs recommended.

Inasmuch as there is such a large fatality in this disease and medicinal therapy has nothing new to offer, it would seem that lumbar puncture for diagnosis and relief of pressure, and laminectomy as a remedial procedure, are along the line of rational medicine, and should be resorted to in treating severe cases.—(*Columbus Medical Journal*.)

THERAPEUTICS OF WHOOPING COUGH.

F. J. Taylor summarizes this as follows : There is no specific treatment. The prime objects are to lessen the frequency and severity of the attacks, and to assuage the irritability of the air passages. Treatment should be prophylactic, hygienic and medical. Isolation and disinfection are very important as prophylactic agents. Infectiousness ceases two months after onset of disease. Thorough ventilation without draughts should be secured. In summer children should be in the open air ; in winter only on dry, still days. Winds are more dangerous than dampness. Child should be fed often ; it is not sufficient to rely on the ordinary three meals. For children of suitable age, eggs and meat juice should form a large part of the dietary. Excitement and over-exertion should be strenuously avoided. The medical treatment may be divided into : (a) That which is directed against the nervous elements of the diseases ; (b) that which has to do with the catarrhal condition ; and (c) that which is directed to the support of the system. (a) Nervous irritability. If anodynes be necessary codein is the safest. Antipyrine is of great value. Children stand proportionately larger doses than adults, and in afebrile conditions the drug is not depressant. Belladonna in proportionately large doses is often of great service. With antipyrine and belladonna the bromides may often be combined to advantage. Of the newer remedies bromoform (in doses of gtt. ij.-iv., three or four times daily, for a child of six) may be used. Author has, however, had better results with antipyrine. Quinine may be used with good effect. (b) Catarrhal condition. Emulsion of asafetida is valuable, but very disagreeable. Alum is a tried agent ; for the cough, codein, tartar emetic and syrup of ipecac and squills. Local treatment is not recommended because it is too difficult to carry out. The room may be saturated with the vapor of a cresoline lamp, though of late this has been superseded by formaldehyd vapor. Two tablets of paraform, which contain large quantities of formaldehyd, are dissolved in a half drachm of alcohol and evaporated over gentle heat. (c) General treatment. The bowels must be kept open and general tonic treatment instituted. During convalescence iron, arsenic, strychnine and cod liver oil are of great value. When possible a change of scene should be had.—*Medical Review.*

SURGERY.

IN CHARGE OF

ROLLO CAMPBELL, M.D.,

Lecturer on Surgery, University of Bishop's College ; Assistant-Surgeon, Western Hospital ;

AND

GEORGE FISK, M.D.

Instructor in Surgery, University of Bishop's College ; Assistant-Surgeon, Western Hospital

THE SURGICAL TREATMENT OF DROPSY.

The difficulty of evacuating fluid from the cellular tissue of dropsical patients is very considerable. Simple incision has long been employed for that purpose, but the danger of infection is very great. The dropsical fluid forms an excellent culture medium, and the infection once beneath the skin and well distributed into the cellular tissue breeds very rapidly, and not infrequently ends fatally. An aid to this process is furnished by the weakened resistance of the patient and by tissues that have long been distended by dropsical accumulation.

Recently, Borgherini (*Deutsche Arch. fur Klin. Med.*, Bd. 61) has devised a plan based upon an old method, but one which seems to meet surgical indications in these cases. The dropsical limb is first made surgically clean, being scrubbed with soap and water, then with alcohol, then with an antiseptic. After this, four incisions are made—two in the calf and one over each malleolus. Over this an aseptic gauze dressing is applied, and it is all held loosely in place by a sterilized rubber bandage. The rubber bandage is left open at the heel, from which the water drains into a basin, the patient sitting on the edge of the bed or in a chair with the feet down. The dressings are changed each twenty-four hours.—*Medicine.*

ASTEROL, A NEW SOLUBLE MERCURIAL SALT, AS AN ANTISEPTIC.

F. Stenmann, in the *Berliner Klinische Wochenschrift* of March 13, 1899, states that this substance is a soluble sulpho-carbolate of mercury, which contains 17 per cent. of the metal, and is hence about one-fourth the strength of corrosive sublimate. He finds that it has some distinct advantages over the sublimate as a local antiseptic. Like the latter salt, it is soluble in water, its solutions remaining

clear. Unlike the sublimate, it is not precipitated by albuminous fluids, and hence its bactericidal properties are not lost in contact with these media. Its antiseptic power is enormously increased by the fact that it is not precipitated by albumin, and consequently it has a deep penetrating action. It is a useful substance for disinfecting the field of operation, as well as the hands of the operator, and it does not attack instruments. When absorbed, it is quite as toxic as the other mercurial compounds.—*Medicine.*

PROTARGOL IN GONORRHEA.

Mark Ryan, in the *Therapist* of April 13, 1899, claims that, of all the new remedies in the treatment of this affection, none have been successful in his hands excepting protargol. This salt contains eight per cent. of silver combined with an organic base. It is soluble in warm and cold water, but some time must elapse in preparing the solution. If shaken in a bottle or rubbed in a mortar a froth forms upon the liquid, which contains a considerable quantity of the drug. He generally uses a one per cent solution, and has had better results in chronic than in acute cases. He does not advise its administration during the first fortnight, but after that two injections daily may be used. Care should be taken to cleanse the urethra with warm water, so as to bring the substance in direct contact with the mucous membrane. The injection should be retained as long as possible, though he thinks that the half-hour recommended in the books is more than the average patient will tolerate, and he does not think that it is necessary. In three cases he has used soluble bougies containing one per cent. of the drug prepared with cacao butter.—*Medicine.*

AN OINTMENT FOR HEMORRHOIDS.

An ointment for hemorrhoids is composed of :

Compound tincture of camphor.....	1 drachm
Camphor.....	1 drachm
Belladonna ointment.....	15 drachms

—*Med. Review.*

CYSTITIS FAVEOLATA.

Among the various forms in which cystitis manifests itself, I meet quite frequently with one conspicuous by the persistence and stubbornness of its symptoms, causing the patient much suffering and the physician not a little embar-

rassment. This is a form of cystitis for which, to my recollection, no special term can be found in the literature, perhaps because it does not usually exist as a disease, *sui generis*, being complicated by, or associated with, other morbid conditions of the urinary tract. I call the disease "cellular cystitis," or "cystitis faveolata," from the honeycomb-like appearance of the bladder wall seen through the cystoscope. It begins in all probability as a superficial cystitis, gradually involving the muscular coat to an appreciable extent, and eventually, after having continued for some time, extending to the interstitial connective tissue; finally, the inflammation may penetrate through the entire thickness of the bladder wall, resulting in pericystitis. In the course of such an interstitial cystitis, which is either a localized or general one, the muscular trabeculæ may be destroyed by suppuration. In old persons whose tissues possess little recuperative power—in particular, those suffering from urinary obstruction—the healing process is not only retarded, but also irregular. In cases in which the inflammation is not so extensive as to result in destruction and contraction, the weak muscular coat will give way under the repeated pressure caused by the tenesmus, and the formation of a number of recesses between the muscle fibers will be the inevitable consequence. In these cells, devoid of contractile elements, the urine stagnates, depositing a thick material consisting of pus, epithelium, triple phosphates and bacteria. This material, adhering to the walls of the excavation, renders the urine ammoniacal by fermentation, and furnishes incessantly new material to keep up the severe cystitis.

The disease is not uncommonly associated with prostatic enlargement and strictures, especially in the posterior urethra, but I have seen it also in middle-aged and old men without these complications, and in cases where constitutional diseases favored its origin during a cystitis; although for obvious reasons its subjective and objective symptoms are much more pronounced in the former. These symptoms are frequent urination, increased when the patient stands, and aggravated by exercise or jolting, paroxysms of pain during and a long time after micturition, and ammoniacal urine. At the end of micturition a sticky gray mass is discharged, similar to that seen in cases of chronic follicular prostatitis. In spite of the frequency in passing water, a good deal of residual urine, even in cases free from obstruction, can be drawn by catheter.

The cystoscope shows the honeycomb excavations, which are not to be confounded with real diverticula of the bladder.

The latter are formed by the entire thickness of the wall, while the former are to be regarded as herniæ of the mucous membrane. The entrance to the diverticula, being smaller than the cavity, appears in the cystoscope as a black aperture, while the excavations in cystitis faveolata, offering a broad entrance to the rays of the lamp, can be seen to the bottom.

The clinical and subjective symptoms here given are common in cystitis, and are of various origin, and the general practitioner does not always possess the facilities offered by the cystoscope. Nevertheless, there are certain points taken together with the above symptoms which permit an approximately correct diagnosis. Excluding superficial cystitis by a thorough general and urinary examination, and stone in the bladder by the use of a stone searcher, the presence of residual urine in many cases, and the possibility of filling the bladder with a considerable amount of fluid, help to eliminate cystitis dolorosa, contracture of the bladder and pericystitis. In every case of cystitis uncomplicated by the existence of these cells, washing of the bladder with a few ounces of a normal salt solution will soon result in the injected fluid coming back clear from the viscus, while in the disease in question it takes quarts of the solution to remove, and then only partially, the sticky mass from the many recesses. The fluid never returns perfectly clear and free from the pus flakes. This latter fact explains the tenacity of the disease and the persistence of the extremely painful symptoms. It also shows that injections with mild antiseptic solutions and the fountain syringe are ineffective in the management of this particular form of cystitis. It is to be regretted that the etiology does not leave much hope for a complete restoration, but these cases are not beyond help or the possibility of temporary relief. The main principles in the management of these cases are : First, effective disinfection of the whole viscus, and especially of the cells; secondly, continuous drainage of the bladder, at least for a while; thirdly, general hygienic and dietetic measures.

The disinfection of the urine and the bladder *cavum* is accomplished by internal medication and local applications. As the disease is usually associated with more or less deranged kidneys, we are compelled to discard antiseptics exercising an unfavorable influence upon their function—for instance, salol, naphthol, sandalwood oil, carbolic acid, etc. Boracic acid or benzoic acid in four-grain doses every six hours will give much satisfaction. The recently much advocated urotropin in doses of from five to eight grains every six hours

can only be used for a short time. It is true it frees the urine considerably from bacteria, but after an observation of nearly two years I have come to the conclusion that, when given for a longer period, it causes much irritation at the vesical neck, and the cases in question require extended treatment.

Small quantities of warm non-irritating fluids injected by a glass hand syringe are useful in clearing the bladder of pus. In this way it is more quickly and thoroughly cleaned than by large quantities thrown into the viscus by means of a fountain bag, which has repeatedly caused rupture of the already thinned bottom of the recesses. Eight ounces of a warm normal salt solution injected successively in quantities of one ounce at a time removes a great deal of the pus, to be followed by one ounce of a plumb. acet. solution (plumb. ac. bas. $\frac{1}{2}$ grain to the ounce of distilled water) and left in the bladder. This acts as a protracted disinfectant, prevents pain caused by the collapse of the often ulcerated and sensitive bladder walls, and hemorrhages *in vacuo* very likely to occur in this peculiar form of cystitis. Irrigations with methylene blue solutions, 1:2000 are highly recommended abroad. The deodorizing and disinfecting power of this substance is great, and the female bladder seems to tolerate it even in higher concentrations, but I have discarded it in affections of the male bladder, having invariably found its application followed by extremely painful paroxysms lasting hours and days.

A suspension of chinosol, one-tenth of a grain to the ounce of distilled water, is non-irritating, a strong antiseptic and deodorant, and non-toxic. It is the best remedy for this condition. Under this treatment the condition of the urine improves rapidly, the irritation subsides, the intervals become longer. At this stage we begin with Guyon's instillations of nitrate of silver, in the previously cleaned and emptied bladder—a very effective procedure, and not very painful, provided the patient is given a morphine or cocaine suppository fifteen minutes before the instillation; which should not be repeated oftener than once a week.

In cases in which the introduction of a catheter is very difficult and irritating, or in cases not responding to the injections in a few days, temporary or even permanent drainage of the bladder and injections of the solution mentioned above are indicated. Temporary drainage of the bladder is best obtained by suprapubic puncture, or by a soft-rubber catheter, No. 8 English, inserted in the urethra, and secured by a silk thread and a piece of adhesive plaster in the usual way. The catheter should be introduced just deep enough to place its

eye past the internal sphincter, to avoid as much as possible contact of the sensitive bladder wall with a foreign body

Still better are rubber tubes with a large central opening at the proximal end, guarded with an obturator. The distal end is connected with a piece of rubber tubing, dipping into a corrosive sublimate solution, 1 : 2000, in a bag attached to the leg of the patient, or in a vessel at the bedside. I prefer corrosive sublimate to the frequently favored carbolic acid solution, which sometimes decomposes and causes corrosion and burns of the skin. This kind of drainage is a great advantage because it allows the usually old patients to be up and around, avoiding the risk of hypostatic pneumonia, decubitus, etc. It has its drawbacks, also. The permanent pressure in a foreign body in the urethra, like every endo-urethral interference, is not without evil consequences for the kidneys of men in advanced age, with sclerotic changes; quite often we are informed of the approaching danger by the tongue becoming dry and the secretion of urine scanty. Immediate removal of the catheter and diuretics change the situation in a few hours; if the warning is neglected a uremic attack with fatal result is inevitable. For these cases supra-pubic puncture, since it can be performed with Schleich's local anesthesia, is preferable.

In general, we give all the well-known instructions as to diet and hygiene. In maintaining these principles much suffering can be relieved, and comparative comfort and freedom from pain will be given to those unfortunate patients for whose ailments a permanent and radical cure cannot be promised.—F. Kreissl, M.D., Chicago, in *Medicine*.

TENDON TRANSPLANTATION.

The theory of tendon transplantation is thus defined by Hoffa: In the presence of a paralysis of an extremity, to bringing the paralyzed muscle in connection with a functionally active muscle, so that the functionally active muscle can undertake the function of the paralyzed muscle also. In 1882 Nicoladoni, in Innsbruck, performed the first operation of the sort, sewing, in the case of a pes calcareus, the peroneal muscle to the tendo Achilles. From this time on many similar operations have been done. The following three methods can be followed: (1) The tendon of a fully functional muscle can be cut away in toto, so that its central stump may be joined to the tendon of the paralyzed muscle. As an example of this method the transplantation of the healthy flexor carpi ulnaris to that of the paralyzed extensor

digitalis. (2) The tendon of the paralyzed muscle is cut; its central end is not regarded, and the peripheral end as far central as possible is sutured to the healthy muscle. In a paralytic pes equinus the tendon of the tibialis anticus is cut, the foot is brought in as strong dorsal flexion as possible; then the peripheral end of the tibialis anticus is united to the tendon of the extensor digiti communis longus. (3) From the tendon of a fully normal muscle a portion—about half—is turned aside, and this portion, in the necessary, correct position of the joint, is joined with the tendon of the paralyzed muscle. Twenty-two patients were operated on by one of these methods. All cases healed quickly and without sepsis. The result can be said to be satisfactory, and with a further experience the limits to which this method can be used will be extended.—*Berl. klin. Woch. ; Medical Review.*

APPENDICITIS.

R. Stein concludes that the cause of this disease is to be found in the appendix itself. The organ shows a strong tendency to involution and degeneration, which is the result of a chronic interstitial inflammation. Normally this process goes on without exciting subjective symptoms. But if there be an acute exacerbation of this process we get an attack of appendicitis. As exciting causes we frequently have the entrance of fecal matter into the lumen of the appendix, with formation of coproliths, ulceration of the mucosa of the appendix and inflammation. Appendicitis differs from other inflammations of the gastro-intestinal tract, in that it manifests an almost constant tendency to become phlegmonous, necrotic and gangrenous. The adhesions formed by the serosa may often help to keep the process localized; but they cannot put any bounds to the general peritonitis which may be excited. Clinically the author divides the cases into several groups, according to the severity of the symptoms manifested, and based on these he formulates his indications for operation. In regard to diagnosis, the author recognizes a form of "appendix colic," due to the emptying of secretion or coproliths from the appendix into the bowel. This form of colic may last for years, and never show any localizing symptoms. Attention is called to the fact that even in classic cases the pain may not be localized in the right iliac fossa at first, so that McBurney's point may not be of immediate value. In cases where no great local tenderness could be elicited in the right iliac fossa by ordinary means, the author has found that if he made firm pressure on the abdominal wall and then suddenly removed the band, that

the sudden tension of the peritoneum [*sic*] would cause pain if there were inflammation, not to be elicited in any other way. Attention is further called to the cases having the characteristics of general sepsis, where only a very careful examination will allow the diagnosis to be made by exclusion. The indications for operation the author puts as follows: Cases with strictly localized process, which show a tendency to improvement, had best not be operated upon during the height of the attack. But one attack is a direct indication for removal of the appendix after recovery. Whenever there is distinct indication of abscess formation, abscess should be opened and drained. Cases that begin very severely, and grow progressively worse, should be operated upon as soon as possible. The question of operation in those severe cases which show the picture of septic peritonitis, is one of the most difficult in this entire chapter of surgery. Each case of this class must be decided on its own merits; but it is not to be forgotten that when these cases are seen it is often too late to operate.—*Deutsche Mediz. Wochens.; Medical Review.*

APPENDICITIS; ITS DIAGNOSIS AND TREATMENT.

W. J. Means submits a report of 112 cases that came under his observation, with the following conclusions: (1) An early diagnosis of appendicitis is desirable and possible if the few cardinal symptoms are understood, such as pain near the umbilicus, tenderness in the ilio-cecal region, tympanitis and rigidity of the muscles in the lower right quadrant of the abdomen. (2) Too much significance should not be placed on the absence or presence of pain, and high temperature; both may be absent, while grave pathologic conditions are going on; they may also be present to a high degree without determining the pathologic status. (3) Appendicitis is a surgical disease and should be treated from a surgical standpoint. (4) From the nature and location of the disease there are no known remedies given internally or applied externally that can remove the trouble. (5) The pathologic conditions of a diseased appendix cannot be definitely determined by external examination or from the existing symptoms. (6) Early operations give the best results. (7) The time for operation is when the diagnosis has been made, providing the environments of the patient are favorable and there are no complications precluding the same. (8) The technique of the operation is governed largely by the taste of the operator and the pathologic conditions.—*Four. Am. Med. Assoc.; Medical Review.*

Therapeutic Notes.

INFANTILE DIARRHŒA.

The following is a very desirable combination for many cases of infantile diarrhœa :

℞	Bismuth subnit.....	ʒ j
	Sodii bicarb.....	gr. v
	Cret. prep.....	ʒ ss
	Creosoti	ʒ v
	Spr. cinnam.....	ʒ ss
	Aqua dest.....	ʒ iv
	q. s. ad.	

M. Sig. Teaspoonful after each movement.

℞	Hydrarg. chlor. mite.....	I grain
	Pulv. ipecac.....	I grain
	Bismuth subnit.....	I drachm
	Sodii salicyl.....	10 grains

M. Ft. Chart. No. 10.

Sig. One powder every two hours until stools improve in number and appearance.

Then give :

℞	Papine.....	2 drachms
	Spts. camphoræ..	2 drachms
	Syr. rhei.....	I ounce
	Syr. zingiberis.....	4 drachms
	Tinct. nuc. vom.....	20 drops
	Listerine.....	3 ounces.
	q. s. ad.	

M. Sig. Teaspoonful or less every two hours until discharges are normal.

CHRONIC URETHRITIS.

℞	Sulph. hydrastiæ.....	20 grains
	Listerine.....	I ounce
	Solution morphia (Magendie's).....	5 drachms
	Aquæ	8 ounces
	q. s. ad.	

M. Sig. Inject three or four times daily, and retain in urethra three to five minutes.

Bulkley gives the following prescription for urticaria :—

℞	Chloralis	I drachm
	Camphoræ,	I drachm
	Pulv. amyli.....	I to 2 ounces

M. Sig. Keep tightly corked in a wide-mouthed bottle. Rub in with the hand.

Gaucher prescribes the following as an application in urticaria :—

R	Alcohol.....	3 parts
	Chloroform	3 parts
	Sulphuric ether,	3 parts
	Menthol	1 part

M. Sig. To be applied in the form of a spray.

B. Wolff relieves the most acute symptoms of urticaria within a few hours, and effects a cure within twenty-four hours by giving sodium phosphate in doses of four to five grammes every three hours in concentrated solution.

The following solution may be used topically :—

R	Prepared calamin.....	45 grains
	Zinc oxide.....	45 grains
	Carbolic acid.....	15 grains
	Lime water.....	1 ounce
	Rose water.....	2 ounces

BROMOFORM IN PERTUSSIS.

Bromoform	48 drops
Expressed oil almond.....	20 drops
Powdered tragacanth.....	2 dr.
Powdered acacia.....	4 dr.
Cherry-laurel water.....	4 fl. dr.
Distilled water.....to make	12 fl. dr.

Half a teaspoonful of this mixture contains about two drops of bromoform. Give from one to four teaspoonfuls in divided doses per day and gradually increase to eight teaspoonfuls per day.—*RADIAS, Med. Record.*

SUBCUTANEOUS INJECTION FOR PERTUSSIS.

Guaiacol	} of each.....	1 dr.
Eucalyptol.....		
Sterilized olive oil.....		10 fl. dr.

Thirty-five minims to be injected daily.—*Phil. Med. Journal.*

TUBERCULOSIS.

Beechwood creosote.....	40 min.
Naphtol.	1 dr.
Iodine	3 grn.
Cod-liver oil.....	8 fl. oz.

Tablespoonful three times a day.—*Cronica Medica.*

PLEASANT COD-LIVER OIL.

Cod-liver oil.....	100 fl. dr.
Syr. tolu.....	50 fl. dr.
Tinct. tolu.....	12 drops
Essence cloves.....	2 drops

Shake well and take a tablespoonful.—BRICEMORET
Gaz. hebd. de Méd. et de Chir.

TUBERCULOUS COUGH.

Syr. Wild Cherry... }	} of each.....	2 fl. dr.
Tinct. Lobelia.....		
Tinct. Sanguinaria... }		
Syr. Ipecac.....		
Tinct. capsicum.....		1 fl. dr.

Teaspoonful every two hours.—*Med. Summary.*

COLDS, COUGHS, ETC.

R Ammon. carbonas.....	ʒ j
Fld. ext. tolu.....	ʒ j
Fld. ext. senega.....	ʒ j
Fld. ext. squills.....	ʒ j
Fld. ext. opii camph.....	ʒ j
Chloroform water.....	ʒ iij
Syr. orange peel.....ad.	ʒ iv

M. Sig. Take a tablespoonful every three or four hours.

HEMORRHOIDS.

R Gallic acid.....	ʒ j
Fld. ext. hamamelis.....	ʒ ss
Tr. benzoin comp.....	ʒ ss
Tr. belladonna.....	ʒ j
Olive oil (carb. 5 p. c.).....ad.	ʒ ij

M. Sig. Apply with brush thrice daily.—E. A. FERREA,
PH.D., San Francisco, Cal.

Jottings.

Gillette recommends the use of hydrogen dioxide for epistaxis. He uses a teaspoonful or more in full strength, injected by means of an ordinary syringe. Relief is immediate. In operations in the nasal cavity, when bleeding obscures the vision, inject hydrogen dioxide. Ask the patient to blow the nose, and the field is clear again.

For that very painful affection, ingrowing toe-nail, the following treatment is very strongly recommended by Dr. Kinsman in the Columbus *Medical Journal*:

1. Remove all pressure from the nail by cutting away a piece of the shoe.
 2. Disinfect with hydrogen dioxide until no more "foam" appears.
 3. Apply a drop of strong solution of cocaine in the base of the ulcer.
 4. Apply a drop of Monsell's solution to the ulcer, then cover loosely with gauze. Repeat this process every second day until the edge of the nail is released by the retraction of the hypertrophied tissue. The patient suffers no pain from the application, and all pain has disappeared the second day. The cure is effected in a week or two without inconvenience or interference with business.
-

The arguments in favor of the disuse of the bed-pan in typhoid fever and the night-chair are, says Dr. Drury: (1) Less annoyance to the patient; (2) more complete evacuation of the bowel, and therefore less frequent disturbance; (3) the more natural position causes less straining, and therefore really less danger of either hemorrhage or perforation. Only when the patient is unable to get out of bed is the bed-pan to be used.—*Medical Record*.

NIGHT SWEATS.—The treatment of night sweats in phthisis is very discouraging. The first thing to be thought of is atropine, either by the mouth or hypodermically. If it causes dry mouth it will have to be substituted by other things, and here the oxide of zinc with the extract of belladonna may be used. Aromatic sulphuric acid, or even ergot, may be tried. Agaricin is also a very good remedy which does not always fail in time of need. Frequently a combination of these remedies, and by alternating them, good results may be accomplished.

A writer in the *Practitioner* says that the vomiting of pregnancy can surely be relieved by giving a 20 per cent. solution of menthol in olive oil. The dose is ten drops on sugar just as soon as the nausea appears.

BROMOFORM SYRUP.—The following has been warmly recommended :

R	Bromoform.....	℥ xl
	Tr. aconite (green).....	℥ l
	Syr. codeine.....	ʒ iss
	Syr. tolu,	
	Syr. red poppy.....aa	ʒ ivss
	Alcohol.....	ʒ iiss

The dose can be graduated according to the age of the patient. This mixture has been found useful in whooping cough, bronchial catarrh and the pneumonia following measles.—*Med. Surg. Bulletin.*

Dr. P. F. Barbour, in *Pediatrics*, says: In colic of infants the use of warm enemata will usually remove the gas. The enema may be of soap suds and water, or may contain a few drops of turpentine or half a teaspoonful of glycerin. Hot applications should be made to the abdomen, and the feet and hands be warmed at the fire or by a hot-water bag. Small amounts of hot whisky and water with a drop of essence of peppermint and a little sodium bicarbonate by the mouth will give relief.

Dr. Larrabee used to recommend one of the following combinations :

R	Spt. ammon. aromat.....	℥ vj
	Sodium bicarbonatis.....gr.	xij
	Syr. rhei aromatic.....	ʒ j
	Aqua carui.....	ʒ iss

M. ft. sol. Sig. Teaspoonful p. r. n.

Or the following :

R	Tr. asafoetida.....	℥ xv
	Ol. cajuputi.....	℥ ij
	Magnesia carb.....	ʒss
	Syr. acacia.....	ʒss
	Aqua anise.....	ʒ iss

M. ft. mist. Sig. Teaspoonful p. r. n.

Some form of cathartic should be administered after relief of the urgent symptoms.

The aromatic antiseptics, when given diluted in hot water, are often of service in relieving the paroxysm and preventing the formation of gas. The most frequent cause of colic is the presence of too much proteid in milk, as is evidenced by the stools containing undigested casein or having the cheesy odor. Therefore, in habitual colic proteids should be diminished.

A deToanna (*N.Y. Medical Record*, July, 1899) reports a case of tetanus in an Italian resulting from a wound in the finger, which healed in five days. Eight days afterwards symptoms of tetanus supervened. Antitoxin was immediately injected, twenty cubic centimetres on the external part of the arm, near the wounded finger, the same quantity on the shoulder and alongside of the spine. These three doses were administered in the course of six hours. Twelve hours after, the condition of the patient was improved. The injections were continued for fifteen days in lessened quantity. The patient was able in a month to walk well, only a little stiffness remaining.

Of-peated bathing of the body with either water or equal parts of water and alcohol, has a wonderful effect in reducing temperature and giving comfort to the patient. Don't forget to bathe the double-heated back, and allow the water, etc., to dry without touching the skin with a towel. This treatment promotes sleep—nature's great restorer.

Tardif (*Anjou Medicale*) says that he has been able to cure all cases in ingrowing nail without the knife. He proceeds as follows: With a flat probe or a match, he slips a bit of cotton between the edge of the nail and the inflamed flesh. Another strip of cotton is put along the outer margin of the ulcerated area, and the space between these two strips of cotton, and which is occupied by the ulcer, is thickly powdered with nitrate of lead. The whole is covered with cotton, and the toe is bandaged. The dressings are repeated every day until the incarcerated edge of the nail is plainly visible. Usually four or five dressings suffice. Then, with patience, the edge of the nail is lifted away from the flesh and a bit of cotton is introduced under it, to keep it up. As it grows it will gradually take its proper position above the flesh, this having in the meantime shrunk and shriveled by reason of the application of lead nitrate. The lead is to be discontinued as soon as it appears that the exuberance of

the fleshy bed of the nail has been overcome. The difficulty seldom recurs. If this does happen it is necessary to repeat the treatment from the beginning.

Two drops of camphor on your toothbrush will give your mouth the freshest, cleanest feeling imaginable, will make your gums rosy and absolutely prevent anything like cold sores or affections of your tongue.

One of the latest remedies for preventing pitting in smallpox is the application to the pustules of an ointment containing ten parts of Ichthyol and eighty parts of vaseline. The pustules dry rapidly and fall off, and there is not left behind any inflammatory charges of the skin. The application of this ointment greatly relieves the itching of the skin.

"There is nothing very surprising," says the *Indian Medical Gazette* for June, "about the statement that in a short time beer will be on sale in the form of tablets. In Germany the beverage has been reduced to a powder by a process of evaporation, and a very small quantity of the powder is needed, with the addition of water and carbonic acid gas, to make a foaming tankard of ale just as good as if it were freshly drawn from the barrel. As the *Manchester Evening News* suggests, it is just possible that this new departure may ultimately have very important effects on the brewing and bottling trades, inasmuch as it will no longer be necessary to transport barrels and bottles. Solid beer yields another example of the strangeness of truth as compared with fiction. An Arctic explorer used to be fond of telling how, up in the far North, the ship's beer froze, and how it was necessary to break it up with crowbars, and then suck the pieces."

Mitchell (*Va. Med. Semi-Monthly*, April 14, 1899) reports the successes he has had with cold water in the treatment of persistent vomiting. It is applied to the epigastrium by means of towels wrung out of ice water, which are changed every minute until the vomiting ceases. In fifteen or twenty minutes the cold will be successful, and the treatment may then be discontinued, to be resumed later if necessary. By these simple measures Mitchell has succeeded in stopping dangerous vomiting in a number of instances, after childbirth for example, when medicines and other external applications had failed to give relief.

THE
CANADA MEDICAL RECORD

PUBLISHED MONTHLY.

*Subscription Price, \$1.00 per annum in advance. Single
Copies, 10 cents.*

Make all Cheques or P.O. Money Orders for subscription, or advertising, payable to JOHN LOVELL & SON, 23 St. Nicholas Street, Montreal, to whom all business communications should be addressed.

All communications for the Journal, books for review, and exchanges, should be addressed to the Editor, Box 2174, Post Office, Montreal.

Editorial.

We publish in this issue an article by Dr. S. Oakley Vanderpoel, on the Medical Aspect of Life Insurance. Few men are better qualified to speak authoritatively on the subject, for he is Medical Director of the New York Life Insurance Company, one of the giant insurance corporations of the world, with assets bordering upon two hundred and fifty millions. The subject of Life Insurance is one which should be carefully studied by every physician, so that he may be prepared to deal with lives presented to him for examination in a thoroughly scientific manner. There was a time, and that within the memory of middle aged members of the profession, when the operation of these corporations was limited in extent, and largely confined to cities. To-day, however, the Life Insurance Agent is on the road like any ordinary commercial traveller, and visits even the smaller villages and travels along concession roads. He offers for sale a policy whose terms are so generous and so liberal that old Insurance men rub their eyes and stand aghast at the strides which Life Insurance has made, even within the last decade. The volume of business coming from every section of the country is yearly becoming larger, and as a result medical men are called upon in continually increasing numbers to act as Medical Examiners. In fact, Life Insurance work in many places forms no inconsiderable portion of a physician's

income. The work is arduous may be, calling for curbing of temper very often ; but it is if carefully done sure to render the examiner better qualified to do his general professional work and thus improve his *status* in the community. Moreover, it is thoroughly satisfactory work, for payment is sure. There are few duties which fall to the lot of our profession of which the same can be said. Such being the case, Life Insurance Companies have the right to expect that the work shall be carefully done. The article of Dr. Vanderpoel will be found very interesting.

THE CANADIAN CONTINGENT FOR SOUTH AFRICA.

The contingent raised in about two weeks for service in South Africa, and which is now technically known as the 2nd Battalion of the Royal Regiment of Canadian Infantry, sailed from Quebec on the 30th of October for the seat of war. They embarked on the Allan Line steamship "Sardinian," and the demonstration amid which it departed was phenomenal, and will live long in the memory of those who witnessed it. The men were selected from the Pacific to the Atlantic, and are, as a whole, a magnificent specimen of Canadian manhood. When this Regiment reaches the seat of war, it will in our opinion be, in height and chest measurement, the peer of any regiment there, save the Brigade of Guards. In the Senior Surgeon of the Regiment, Dr. C. W. Wilson of Montreal, the Medical Department of the field force will find one who can hold his own with their best. The Canadian profession need have no fear but that he will show that in surgical work Canada is well to the front. The Junior Medical Officer, Dr. Fiset, will, we have no doubt, reflect credit on his Alma Mater, The Attached Medical Officer, Dr. Osborne, of Hamilton, is, we understand, a specialist on the eye. We believe his presence may be valuable, not alone to the Regiment to which he belongs, but to others in the field.

The fact that the force was enlisted, mobilized at Quebec, equipped and sailed in about two weeks, is highly creditable to the Militia Department, the head of which is the Hon. Dr. Borden.

A friend of ours, some years ago, who had a large medical practice in a town of about 50,000 inhabitants, told us that he knew, practically at least, all the prominent people of the place. Meeting him lately he said that the place had more than doubled its population, and he now felt as if he knew but few. Handsome equipages, with fine horses, passed along the thoroughfares, and he did not know to whom they belonged. There was a time, not so long ago either, when Montreal was not an overgrown place, and we believe the fact that it contained the nucleus of a fine University, called McGill, was known all over the continent. Now that Montreal takes rank among the metropolitan cities, and McGill has become one of the leading Universities, it is to say the least, annoying to have the editor of the *Maryland Medical Journal* in its issue of September 16 place the *locale* of that University in the City of Toronto. Editors are believed to know everything, but this one evidently does not. The editorial fraternity feel that he has cast a slur upon them.

SUNSHINE.

For a number of years there has been gradually growing among the better class of society a tendency to darken the house and shut out the greatest of all Nature's blessings—sunshine. Large portieres, heavy curtains, are in demand, and when female friends arrive to partake of 5 o'clock tea these are drawn and the invigorating beverage is drunk in a mellowed light of artificial red, yellow or green. This is a great mistake. Bad enough to have to use manufactured light when Nature's light has gone, but to shut it out when available is little short of criminal. Every living structure is stimulated to activity by sunshine. Every human being is conscious of a feeling of invigoration on a bright clear day, and a corresponding depression on a day when the sun is hidden all day long by a heavy overcast sky. Every physician knows the benefits to be derived in many diseases from a sun bath, and the best for this bath is the morning sun, though in our Canadian climate in winter these can be taken at almost any hour of the day. Let fresh air into the house

during our winter for an hour every morning and again for a shorter period later in the day. Without this, with double-decked windows, the atmosphere becomes charged to a large degree with exhalations from the body, and being re-breathed has a most depressing effect on the system. Encourage in every way the pursuit of our-door recreation ; remember the composition of the air and reveal its benefits to your patients. They will thank and remember you for this advice and comparatively cheap prescription.

THE WAR.

The *British Medical Journal* for October 28 says :—“ The announcement made by the Under-Secretary of State for War that Sir William MacCormac, the President of the Royal College of Surgeons of England, had expressed his willingness to proceed to South Africa with Sir Redvers Buller's Field Force, was received with loud cheers by the House of Commons, and has caused the greatest satisfaction throughout the country. We understand that the Director-General of the Army Medical Department felt that it would be desirable to have at the disposal of the medical staff in South Africa the services of consulting surgeons of large experience to take a share, in consultation with the medical officers in charge of hospitals or convoys of wounded, in the treatment of cases in which the question of performing major operations may arise. Decisions in such cases, which are of momentous importance to the wounded men, are matters of great anxiety and responsibility, and bear heavily on officers already subjected to great strain. Colonel Stevenson, R.A.M.C., the eminent professor of military surgery at the Army Medical School at Netley, is the Principal Medical Officer of the lines of communication ; but we believe that in view of the probability that there may be several lines of communication, the Director-General felt that it would be desirable to have at least one consulting surgeon with each force, and he took the view that the emergency was one in which the co-operation of leading civil surgeons might properly be invited. The sug-

gestion made by the Director-General was approved of by the Secretary of State for War, who naturally turned to Sir William MacCormac—whose experience of surgery in the field is unrivalled in this country—for his advice. Sir William expressed his approval of the plan, and with praiseworthy patriotism offered his own services. He first saw service during the Franco-Prussian war, when with Dr. Marion Sims and Dr. Frank, of Cannes, he organized the Anglo-American Ambulance, to which he acted as chief surgeon. The ambulance rendered excellent service at Sedan and subsequently. Sir William was also out in the Turco-Servian war with the ambulance, and was present at the battle of Alexinatz, which brought that campaign to an end. It is said that the War Office will probably arrange that Sir William MacCormac shall have the assistance of two specially selected civil surgeons.

A GIANT MAGNET.

The *New York Medical Times* for August says:—Magnets have long been used in removing pieces of steel from the eye, but they have been of small power and only successful when the steel was imbedded in the surface. A magnet so powerful that it will hold 250 pounds of steel clinging to it has recently been introduced into the Manhattan Eye and Ear Hospital. The first test of its powers was entirely successful, and saved an eye which otherwise would have been entirely lost, as it would have had to be removed. A sliver of steel from a rapidly revolving wheel had cut through the entire eye into the posterior chamber in the vitreous fluid, where no surgical instrument could reach it without destroying the eye. The magnet drew the steel from the opening it had made on going in, and is so powerful that it would draw a piece of steel through a human eye if no opening had been made. The sight of the eye will be saved.

The magnet is twenty-two inches long and fourteen inches in diameter. Between the poles, made of polished steel, the core of the magnet is wound with steel wire. It takes fifteen amperes and 110 volts to saturate these coils.

The following remarkable statement appears in *The Home Magazine*:—"Dr. Heneage Gibbes, after occupying the chair of bacteriology for ten years or more at Ann Arbor, has accepted the position of health officer for the city of Detroit. Dr. Gibbes to-day denies bacteria as a causative factor in disease. It has to be borne in mind, too, that in publishing this statement he does not give it as his opinion merely, but as a fact based upon actual experiments; said experiments consisting of inoculation with bacteria having been performed upon himself time and again without the slightest effect. He not only says that the idea of dodging a bacillus here for one thing, and another somewhere else for another thing, is absurd and 'simply a fad,' but he absolutely denies the fact that—hitherto urged as a proof of their etiological nature—that these 'pathogenetic' micro-organisms are always present in disease. He says: 'I have conducted hundreds of autopsies on consumptives without finding a trace of the bacillus tuberculosis. I taught along the lines of Koch, but presented results for what they were worth only. There is no such thing as *German* science; science is universal. My personal investigations have convinced me that the whole germ theory of disease is a fad. In Germany, Dr. Koch's theories are regarded as *theories* only; but in this country they are held too frequently to be *facts*.'"

CARBOLIC ACID AS AN ANTITOXIN.

Professor Bacelli, Director of the Royal Medical Clinic of the University of Rome, has been employing plain hypodermic injections of carbolic acid instead of the many tetanus antitoxins on the market. His example has been followed by many of the professors in Italy, France, Germany and Russia, and the claim is made that the simple carbolic acid injections are followed by better results than are the tetanus serums. The strength of the carbolic acid solution used varies from two to three per cent. It is made by dividing the purified crystalized acid in distilled water. The dose for hypodermic use is three to four centigrammes daily.

Two interesting pieces of news we find recorded in a late medical journal. One is that Surgeon Major Ross telegraphs from Sierra Leone that he has discovered the guilty malarial mosquito. The other piece of news is that during the past year United States soldiers have swallowed 125,000,000 grains of quinine.

Personal.

Dr. Laphorn Smith has resumed his private classes in gynæcology for practitioners who may join at any time, each course lasting a month, and frequent opportunities being afforded for examining patients and assisting at operations at the various hospitals and dispensaries with which he is connected.

Dr. N. C. Smillie (M.D. Bishop's, 1882), after spending six months in Europe studying genito-urinary diseases, has returned to Montreal and commenced practice in this specialty.

Dr. G. H. Mathewson (M.D. McGill, 1894) has been appointed Lecturer on Ophthalmology and Otology in the Faculty of Medicine of Bishop's College.

Dr. George O. Gernon (M.D. Bishop's, 1879), of St. Genevieve, Q., was in Montreal about the middle of October and gave us a call.

Dr. Blackmer (M.D. Bishop's, 1884), of St. Louis, Mo. was in Montreal a few weeks ago. He is Professor of Medical Jurisprudence in the Barnes Medical College in that city.

Dr. J. W. McDuffie (M.D. Bishop's, 1878), of Stanstead, died the early part of October.

Dr. Douglas Macrae (M.D. Bishop's, 1893) was in Montreal about the middle of October. He is surgeon on a line of steamships between Antwerp and Philadelphia.

Surgeon Major Wilson (M.D. McGill, 1886) of the 3rd Field Battery of Artillery (Montreal), has gone to South Africa as Chief Medical Officer of the Canadian contingent (Service Battalion, Royal Canadian Regiment). His assistants are: Surgeon Major Fiset, 89th Battalion, and Surgeon Major Osborne, 4th Field Battery (Hamilton). The Battalion sailed from Quebec in the steamship "Sardinian" on the 30th October.

We regret to note the deaths quite recently of Dr. Cooke, of D'Israeli, and of Dr. Knox, of Shawville. Both have been cut off at a comparatively early age.

Dr. F. Wainwright (M.D. McGill, 1897), and late one of the assistants at the Montreal General Hospital, is at present settled in Charlotte, South Carolina.

Surgeon Major Wilson, 3rd Field Battery Canadian Artillery, who has gone to South Africa as Senior Surgeon of the Canadian contingent, was entertained to a supper at St. James's Club by his medical friends a night or two before he sailed. Surgeon Lieut.-Col. F. W. Campbell, late Royal Canadian Regiment, occupied the chair. It was a most enjoyable affair.

Book Reviews.

Archives of The Röntgen Ray (formerly Archives of Skiagraphy). Edited by Thomas Moore, F.R.C.S., Surgeon to the Miller Hospital, and Ernest Payne, M.A. (Cantab.), A.I.E.E. London: Rebman, Limited, 129 Shaftesbury avenue, Cambridge Circus, W.C. American agent, W. B. Saunders, 925 Walnut street, Philadelphia, 1899. Vol. III., No. 3, February, No. 4, May, and Vol. IV., No. 1, August, 1899. Price of each part, \$1.

These excellent publications, which come out quarterly, must prove a source of unbounded interest and profit to those who have the privilege of perusing them. At the present time in the treatment of fractures the Röntgen Rays play an important role, and are almost as necessary as the splint itself, for without its power many fractures would be passed over, or be at best only suspected of being present; but now by this process of Photography or Skiagraphy the most deep-seated injuries of bones, not to mention the localization of bullets after the explosion of firearms, becomes comparatively easy. During the Soudan campaign, Major Battersby, of the British Medical Staff, had his headquarters (for the Röntgen Ray apparatus) at a small village called Abadieh, 9 miles north of Berber and about 1,250 miles from Cairo. After the battle of Omdurman 121 British officers, non-commissioned officers and men were brought to this place (Abadieh), where the Egyptian troops had constructed a number of large and well ventilated mud-bricked buildings, which were used as a surgical hospital in the field. Of this 121 wounded soldiers 21 cases could not be diagnosed accurately by ordinary surgical means. By the help of the Röntgen Rays the bullet was found, or its absence proved, in 20 out of the 21 cases. Some very excellent photo-

graphs are shown also in the Archives of fractures of the radius and ulna at the wrist. Roentgen Ray burns are also dealt with, and, in fact, the more one reads in these "Archives" the deeper becomes his interest and wonder. We can only say in conclusion that the high standard of the publication is shown from start to finish, and any one interested in radiography cannot afford to be without the "Archives."

Warner's Pocket Medical Dictionary of To-day, comprising pronunciation and definition of 10,000 essential words and terms used in medicine and associated sciences, and tables of arteries, nerves, muscles, etc., by William R. Warner. Price, 75 cents.

This is a handy and useful little volume. It is especially valuable to the student for class-room service.

PUBLISHERS DEPARTMENT.

SANMETTO IN ANEMIC UNDEVELOPED YOUNG WOMEN.

I have used Sanmetto with profit in a case of a young woman who was troubled with a very irritable bladder and urethra, caused from an excess of uric acid crystals in the urine. The Sanmetto accomplished what I did not expect. The mammae had never developed very much, nor the chest and shoulders. She was also quite anemic. I gave her a bottle of Sanmetto with no apparent improvement, except toward the last she felt a little more vitality. I then procured another bottle at the drug store here and gave her about half of it. There is now a marked improvement in her general health, the mammae are about double the former size; her shoulders and neck are becoming very much more plump, and her chest is so much broader that she can scarcely wear the clothing worn before. She is looking very much better. But nothing seems to dissolve the uric acid crystals as yet.

F. E. DOANE, M.D.

KANSAS CITY, Mo.

The November number of the *Art Amateur* contains several new features of note. An article on "Some Portraits of Queen Elizabeth" is magnificently illustrated after the most authentic portraits of the Virgin Queen, in which her passion for jewels and dress is strikingly evident. Mr. R. Davis Benn writes of the National Arts Competition in London with illustrations, and a paragraph in the Note Book, apropos of the National Arts Club and its coming exhibition of metal work, takes the ground that the future of the applied arts in this country, as in England, must depend on the amateur and the independent artist workman. In line with this is the first of a series of practical articles on the "Arts of Metal," which gives a view of an amateur's workshop, and explains how easily the fascinating art of repousse may be acquired. The well-known cartoonist and illustrator, Mr. W. A. Rogers, begins a series of articles on "Figure Drawing," highly original and suggestive. The departments of Ceramic, Oil Painting, Pen Drawing and The House are, as usual, well filled. The cover is specially attractive and seasonable, being an adaptation of a picture by Brispot, and the color plate—"Who Whistled"—after a clever study by the celebrated painter of animals, Mr. J. H. Dolph, is, by itself, worth the price of the number. J. W. Van Oost, publisher, 23 Union square, N. Y. C. Price, 35 cents.