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CANADA Medical Record

MONTREAL

A Monthly Journal of Medicine and Surgery

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CANADA

MEDICAL RECORD

SEPTEMBER, 1903.

Original Communications.

LARGE FIBROID POLYPUS COMPLETELY FILLING THE VAGINA, CAUSING EXHAUSTING HEMORRHAGES —REMOVAL AND RECOVERY.*

By A. LAPHORN SMITH, B.A., M.D., M.R.C.S., England,

Fellow of the American and British Gynecological Societies; Professor of Clinical Gynecology in Bishop's University, Montreal; Professor of Gynecology in the University of Vermont; Surgeon-in-Chief of the Samaritan Hospital for Women; Gynecologist to the Western Hospital; Gynecologist to the Montreal Dispensary; Consulting Gynecologist to the Women's Hospital, Montreal.

Mrs. J. H. S., forty-one years of age, was kindly sent to me, by Doctor Stewart, of Arundel, complaining of severe hemorrhages every month since October, 1902, and of a very exhausting discharge, which she had had since May, 1903.

She gave me the following history: She was born in Canada; began to menstruate at fifteen; normal, until her marriage at thirty-eight. She has never been pregnant. From the age of fifteen to thirty-eight she was engaged at housework. Her periods had always been profuse, but the past few years they began to be painful. Her bowels had always been constipated until a few years ago, when she cured herself by drinking hot water in the morning. For the last few years she had been compelled to get up several

* Read before the Clinical Society of the Montreal Dispensary, 9th October, 1903.

times at night to make water. She had never had pains on coitus. By last fall the periods became so profuse that she required as many as seven napkins a day for four or five days, and since October she had had metrorrhagia or hemorrhage between the periods even more profuse than the menstrual flow. In May of this year these latter hemorrhages stopped, but were replaced by a thick watery discharge, which saturated eight to ten napkins a day for the whole time between the periods. For two years past she had also been having cramps in lower abdomen every few days and lasting for an hour or two, and last fall they were accompanied by a terrible bearing down feeling. She became emaciated and so weak that she could hardly crawl around. It was rather a strange coincidence that for four years she nursed a lady in Illinois who was troubled very much in the same way, but as that lady is now sixty-eight years of age, and still alive, her disease could hardly have been cancer. On examination I found the vagina occupied by a tumor as large as a foetal head at six months, and when I put my finger in around it to feel where it was attached there was a gush of syrupy clear fluid, which ran over the patient's clothes and on to the floor. My diagnosis was a fibroid polypus, which had been squeezed out of the wall of the uterus into the latter's cavity, and after many hard labour pains, which she called cramps, it had been expelled from the uterine cavity into the vagina. Two days later, after careful disinfection, I placed the wire ecraseur around the pedicle close to the uterine wall and crushed the former through. It was then quite a difficult matter to extract this tumor through a virgin vulva, in a woman of forty-one, and at one time it looked as if I would have been obliged to make an incision in each side of the labia, but after ten minutes steady pulling the perineum stretched enough to allow it to come out. There was a pretty sharp hemorrhage for a minute or two, but it completely

iodine and carbolic (equal parts), after which a five yard bandage of sublimate gauze was required to pack the uterus. No sooner was this tremendous loss of albumen stopped than the patient rapidly recovered. She was placed on Pil Blaud with arsenic and nux vomica, and in a few days she was able to sit out on the gallery all day to bask in the sun. She did not have a single pain after the first day except when on the second day, the packing was being removed, and on the tenth day she returned home, walking quite smartly out to the carriage without any help. I have had quite a number of these cases, some of them having nearly reached death's door before consulting a physician, while others, who consulted one, delayed for months before acting upon his advice to submit to an operation. Every one I have seen has rapidly recovered after operation, their only regret having been that they did not have it attended to sooner.

248 Bishop Street, Montreal, Canada.

Selected Articles.

REMARKS ON A NEW TREATMENT OF WHOOPIING COUGH.

BY DR. NORBERT SWOBODA.

Among the numerous remedies tested in the treatment of whooping cough the only one to which a causal, that is to say, an anti-bacterial effect can be ascribed, is quinine. This drug has been employed for 100 years in the treatment of this disease. Since 1867, when Binz published his careful studies in regard to this method of treatment, a large number of investigations have been made, among others, by Hagenbach, Bickel, Ungar, Baron, Noorden, F. Ritter, Jansen, Elkind, Heubner, Steffen, Cassel, and recently by Heim, all of which have demonstrated that quinine exerts a positive effect, especially at the beginning of the disease.

Notwithstanding that quinine is recommended as one of the most prominent drugs in pertussis in all the text-books

it has been used only rarely and reluctantly in private practice. Most physicians have not even given it a single trial, on account of the repugnance of children toward the unpleasant taste of the ordinary cinchona preparations and on account of their toxic properties, especially their injurious action upon the stomach.

Some physicians after a few trials reject the drug when rapid results are not observed.

The cause of such failures is, first, that too small doses have been administered; second, that the treatment has been begun at too late a period, and, third, that unsuitable preparations have been prescribed.

Investigations hitherto made have shown that quinine must be given in comparatively large doses to be effective, and that these massive doses which have deterred many physicians from the use of the drug are ordinarily well tolerated. The organism of the child tolerates quinine much better than that of the adult, this being confirmed by experiments on animals by Briguet. Finally, the action of quinine will be the more marked the earlier it is resorted to. This circumstance favours the view that its effect is anti-parasitic, since during the period of spasmodic cough the infectiousness of the disease becomes gradually lessened.

The officinal quinine preparations are but little adapted for the treatment of whooping cough. As regards the bitter quinine salts, the fault is due to the unpleasant taste and less to the by-effects, which are not important owing to their short duration. The physician often has a veritable struggle with the patients and their relatives. He wastes much time and labour, and often experiences failures because the parents frequently have not administered the remedy owing to its unpleasant taste without confessing the same. If the remedy be administered by subcutaneous injection, enemata or suppositories, or through the stomach tube, the resistance encountered is still greater. The parents are apt to object, and justly so, that any treatment which worries or excites the already irritable child must ordinarily do more harm than good.

The endeavour to find a complete substitute for the bitter quinine preparations suitable for general use has led to a number of important investigations in this field. The

answer the requirements, for they contain either too little quinine or they are not sufficiently dissolved in the digestive fluids. Others contain undesirable constituents.

I would refer to the very careful work of Dreser on tasteless quinine derivatives, in which, on the ground of accurate physiological investigations, he concludes that of the combinations known as euquinine, saloquinine and Aristochin, the last named, which is a neutral carbonic-acid-ester of quinine, is to be regarded as the most useful.

Aristochin contains 96.1 per cent. of quinine base (hydrochlorate 81.7 per cent.), and constitutes a white, tasteless powder. It is readily soluble in dilute gastric juice, and is not precipitated in its passage through the intestine. After its administration abundant quinine is eliminated in the urine, but like euquinine the amount excreted is less than that of the hydrochlorate. The absorbability of the free quinine base as compared with that of Aristochin is as 100 to 80 per cent. Dreser found that Aristochin, in contrast to other quinine preparations, inclusive of euquinine, causes no local disturbances of the stomach, that its destructive action upon protozoa is double as strong as in the case of quinine and euquinine, while the general toxicity of the quinine molecule, as tested on warm and cold-blooded animals, is most diminished in the form of Aristochin. The effect of Aristochin upon the heart is also more favourable than that of quinine.

At the incentive of my chief, Prof. Fruehwald, I have experimented with the new remedy upon a number of children with whooping cough. The drug was also tried in a few cases of hectic fever, headaches and malaria with good effect. On the other hand, it proved ineffective in a few children suffering with pneumonia and pleurisy, perhaps because it was not dissolved or absorbed in the stomach owing to the absence of hydrochloric acid.

Altogether 68 cases were treated. I selected only those in which the diagnosis was beyond doubt, that is, those in which the attacks were typical, or there were positive data in regard to the manner of infection. Many of the patients were members of the same family, or neighbours or schoolmates. Furthermore, the cases complicated with febrile phenomena were excluded, because these did not permit of a correct judgment of a remedy intended for whooping cough. Especial attention was given to recent

cases. I noted the duration of the catarrh as well as that of the convulsive cough up to the beginning of the treatment. Statements regarding vomiting, hemorrhage, number and violence of the attacks, existence of bronchitis, loss of appetite, etc., as well as the results of the treatment, were recorded. Only exceptionally was I able to induce the mother to keep a record of the number of attacks. I always endeavoured by close questioning to obtain a correct idea of the action of the remedy, which often was not easy, and frequently impossible, on account of the slight intelligence of the mother or because the children were often brought to the clinic by neighbours who were not well informed. Very frequently the mother, after receiving the amount of Aristochin necessary for the treatment, failed to return. Moreover, it must be mentioned that this is most apt to happen in cases in which the drug has a good effect, because the mothers who belong to the poorest class usually live far away from the dispensary and therefore cannot sacrifice the necessary time and fare on the street cars, unless when absolutely required. In children with whooping cough there is the further danger of catching cold and the inconvenience attending the occurrence of the attacks outside the house.

The daily dose was regulated in the same way as is customary with the hydrochlorate of quinine, in spite of the fact, as above mentioned, that Aristochin, as regards its absorbability, is not equivalent to the latter. To infants three times as many centigrams were given as the age of the child in months; to older children three times as many decigrams as the age of the child in years; but to children in the eleventh and twelfth months more than 0.3 gm. pro die was never administered, while in those over four years a daily dose of 1.2 gm. was rarely exceeded. The duration of the treatment was, as a rule, nine days; during three days the full daily dose was given; then for six days one-half of this quantity. For example, a child two years old received as a daily dose twice $0.3 = 0.6$ gm. This was continued for three days; then the little patient received for six days one-half as much, that is 0.3 gm. pro die. The total amount of Aristochin employed, therefore, was six times the full daily dose.

The desideratum of a good remedy for whooping cough is that it be administered as infrequently as possible, that is, about 3 or 4 times daily; hence the daily dose should therefore be divided into three or four parts.

Stursberg, who has made some experiments with Aristochin in whooping cough in the Pediatric Clinic of Bonn, which have recently been published, administered small doses, namely, 0.05 to 0.1 gm. for children under one year and up to 0.3 gm., three times daily for older children. Stursberg found that in about one-half of his cases a distinct effect of the Aristochin treatment was observed, while in the others the drug was frequently administered at irregular intervals. Besides a rapid reduction of the number of attacks, he also observed that if the drug was too early discontinued, the paroxysms again increased, but, on renewal of the remedy, were greatly diminished. This I also noticed in some cases.

In all my experiments I was especially able to note that in the above doses the drug was always well tolerated and was unaccompanied by disturbances of the appetite, nausea, tinnitus, or a feeling of pressure in the head. It may be that larger doses are equally well borne and may have a still more favourable influence upon the disease. I was further able to convince myself that Aristochin exerts a beneficial influence upon the course of whooping cough in about one-half of the cases. In a large number of instances I saw a rapid improvement and a cure in that stage of the disease in which it is not apt to happen spontaneously or under any other method of treatment. In several cases I obtained an ideal result in children in whom the disease was recognized in the catarrhal stage, and here the convulsive stage failed to appear.

It is worth while to mention two other cases, 5 and $1\frac{1}{2}$ years old respectively, in which the treatment was begun late in the disease, in one during the sixth and in the other during the eighth week. Notwithstanding this, however, a rapid improvement and cure occurred, while in the other cases of this kind there was no improvement.

These cases show sufficiently that the results derived from the quinine treatment in whooping cough are obtainable in an equal degree with the tasteless and non-toxic Aristochin. The action of the drug manifests itself, as a rule, in the same cases in which quinine is indicated, but frequently fails to occur in those complicated cases in which the life of the child is mostly threatened. Whether Aristochin is capable of exerting a quinine effect in febrile diseases and whether its lack of toxic properties holds good if administered for prolonged periods must be left to future investigations.—*Wiener Klin. Wochenschrift*, No. 10, 1903.

HEADACHE IN ITS RELATION TO DISORDERS OF THE GENERAL HEALTH.

BY WILLIAM M. LESZYNSKY, M.D.,

Consulting Neurologist to the Manhattan Eye and Ear Hospital, and the Harlem Hospital; Neurologist to the Lebanon Hospital and the Demit Dispensary.

Headache is a frequent manifestation of the most varied disorders of the nervous system and of other organs. Being merely a symptom of so many different morbid states, it cannot be consistently characterized or described as a disease, although it is often of such a nature as to possess the significance of an independent affection. It may be so fleeting or transitory as to be more or less ignored by the patient, or it may attain such a degree of severity or persistency as to lead the sufferer to seek medical advice. Familiarity with its various forms is essential, for the practitioner is confronted by this symptom at almost every turn, and it is necessary always to bear in mind that headache is a frequent accompaniment of many constitutional diseases. Hence, a description and classification of headache, with suggestions as to means of determining its causation, must prove of great practical value. According to many modern observers, we know almost nothing of the structures in which the pain of headache is felt, or the mechanism of its production. As the meninges, especially the dura and a large area of the cranium, receive their sensory supply from the terminal sensory branches of the trigeminus, and, as the meninges are also supplied by branches of the sympathetic nerve, it is reasonable to assume that headache is the result of direct or indirect irritation of these nerves. Psychological disturbances, in the form of depressing emotions, such as grief, worry, fright etc., often produce headache. In such instances it must be due to processes originating in the higher cerebral centers through which superficial pain is perceived.

Headache must not be confounded with true neuralgia, in which the pain is paroxysmal in character and directly limited to the course of the nerve and its distribution. The idea that the location of the pain in any particular region of the head is always directly related to some special underlying, adjacent, or remote pathological process (excepting pericranial inflammation) has not been substantiated by clin-

ical experience. No definite rules can be formulated in regard to this matter that will apply in every case. It may be said, however, after the perusal of the histories, and observation of a large number of cases, that such information, nevertheless, may prove valuable in suggesting certain lines of inquiry. The headache may be confined to the forehead, to the vertex, the parietal, temporal, or occipital region on one or both sides. It may be unilateral, as in migraine, or it may effect the entire head, and is then described as diffused or general, or it may occur in various combinations. It may be transitory, paroxysmal, periodical, or continuous, and may vary in location, degree and character from time to time.

Headache, for all practical purposes, may be divided into two classes, functional or organic. The so-called functional forms of headache are, by far, the more frequent, and include those resulting from various constitutional or psychical disorders, and from causes not situated in the skull or cranial cavity, excepting the disturbance of special sense organs such as the eye, ear and nose. Some disorders of the cerebral circulation may also be placed in this category.

The organic form includes all types of intercranial disease whether vascular, meningeal or cerebral and disease of the cranial bones.

My remarks are based upon a clinical study of nearly 5,000 cases observed during the last twenty years, and will be confined to a description of the functional forms of headache, and their relation to other morbid conditions, in which headache often obtrudes itself as a persistent or predominant symptom.

As the magnitude of the subject, as above outlined, will not permit of its adequate representation in the allotted time, migraine will be excluded from the discussion.

In a very large majority of instances in which headache is complained of it is due to toxæmia, resulting from either constipation, or intestinal or gastric indigestion. The clinical fact has long been established that auto-intoxication of intestinal origin plays an important role in the production of headache, migraine and vertigo, but such symptoms are evidently more or less dependent upon individual susceptibility. Constipation is not incompatible with apparent health, for some persons may be constipated for a week or more at a

time without any complaint of digestive trouble or headache. For this reason the objection has often been made to the hypothesis of auto-intoxication of fecal origin. On the other hand, Bouchard, who has made a special study of this subject, believes that constipation should be regarded as a protection against intoxication. The lengthiest argument, however, will not controvert the familiar fact that thorough purgation causes the rapid disappearance of the headache and associated symptoms in most cases of this character. In these patients the headache is usually located in the frontal region, but is often diffused over the entire head. As a rule, it is not constant, and may or may not be associated with gaseous eructations. In some it is accompanied by morbid somnolence during the day and heavy sleep at night, while in others insomnia is complained of. Occasional attacks of vertigo may also occur. Intestinal indigestion, with or without constipation is more frequently productive of headache through autotoxaemia than as a supposedly reflex cause. The urine is often of high specific gravity and may contain an excess of indoxyl.

It would seem that gastric indigestion, on the other hand (although in some instances occasioning toxic absorption), is more likely to produce headache by reflex irritation through the pneumogastric nerve from fermentation of food and gaseous distension of the stomach. Thus, headache, possibly due to both causes, is frequently an accompaniment of dilatation of the stomach. The location of the headache is usually supra-orbital or frontal.

Headache due to renal diseases is of very common occurrence. Two forms are found in nephritic subjects—uraemic and congestive.

Either one or both may be present in the same patient. The uraemic form is due to the retention in the system of the constituents of the urine, and may manifest itself in any type of kidney disease, whether acute or chronic, and is often a premonitory symptom of a convulsive attack. The pain is ordinarily situated in the occipital region, extending to the neck. It may or may not be associated with somnolence, nausea or vomiting, etc., according to the degree of damage to the kidneys and arterial system. In some cases the headache may be accompanied by vomiting, vertigo and optic neuritis, thus simulating the general cerebral symp-

toms of brain tumor. The congestive form arises in consequence of disturbed cerebral circulation in the presence of cirrhotic kidneys, with arteriosclerosis, cardiac hypertrophy and increased arterial tension. Unless the urine is carefully analyzed, and the functioning power of the kidneys ascertained beyond question, the uraemic forms of headache will often pass unrecognized, and may lead to unexpected and serious consequences.

As so many physicians carelessly limit the urinary analysis to the reaction and test for albumin, it is well to bear in mind that in chronic interstitial nephritis albumin is often absent.

Two kinds of headache occur in rheumatic subjects. One is due to suboxidation and autotoxaemia, the headache being diffused and similar to that arising in other forms of toxæmia. The other is a true muscular rheumatism or myositis located in the scalp and affecting particularly the occipitofrontalis muscle and its aponeurosis. The pain is increased by active or passive movement of this muscle, and it is common to obtain a history of other attacks of muscular rheumatism affecting different parts of the body. These patients may also have suffered from acute or subacute articular rheumatism. The attack may last from a few hours to several weeks. Like other forms of myositis it is induced by exposure to cold. One of the worst cases under my observation occurred in a rheumatic subject after bathing the head in cold water and then sitting at an open window for a half hour or more.

Headache is frequent in gouty subjects. It may be due to toxic products of defective oxidation, or the result of vascular disease affecting the cerebral circulation. It is not unusually accompanied by interstitial changes in the kidneys. The headache and the irregular symptom-complex, often described as lithaemia, is a typical form of gout in which there is more commonly a sense of pressure and fullness about the head than actual pain.

Headache occurring in diabetics is often accompanied by hebetude and depression of spirits. As a premonitory symptom of diabetic coma, it is soon followed by delirium and dyspnoea.

In the early period of all acute infectious diseases headache is frequently a prominent symptom, and is usually de-

scribed by the patient as generalized or frontal. As an initial symptom of typhoid fever, it is sometimes so severe and persistent as to demand special attention. The pain is often located in the occiput and back of the neck, and may be accompanied by photophobia, retraction of the head, and muscular twitching, thus resembling meningitis. Not long ago I saw the wife of a physician who had been confined to bed for several days with severe occipital and vertical headache. The pupils were contracted, and there was considerable photophobia and occasional mild delirium. She was supposedly suffering from meningitis, but was found to have typhoid fever, which took the usual course. On account of the severe general headache, the early period of acute croupous pneumonia may also simulate meningitis until the lung trouble has clearly developed.

In general, it may be said that headache frequently occurs in all conditions accompanied by fever. It is hardly necessary to mention that, as a routine practice, the temperature should be noted in every case of acute headache, the character and frequency of the pulse, and the presence of fever being always suggestive of the probably infectious or inflammatory origin of the trouble.

Headache is often due to acute or chronic alcoholic poisoning, the nervous system being at times so sensitive that a small quantity of alcohol may produce violent but transitory general headache of a congestive type. Chronic alcoholic poisoning is often the cause of daily or constant headache, but is commonly due to a combination of causes, such as toxæmia, interference with the digestive processes and cerebral arteriosclerosis. It is often associated with cirrhotic changes in the liver and kidneys, and many of the attendant phenomena of these conditions.

In some individuals the injudicious and excessive use of coffee is productive of headache and a sense of fullness in the head.

Headache due to the toxic action of lead is a comparatively rare symptom. In some cases of chronic lead poisoning, however, headache does occur, and its cause should be recognized. It is probably due to the direct action of the lead on the cerebral nerve centers, or indirectly through the production of pathological changes in the liver and kidneys.

Headache is often an important symptom in neurasthenia.

thenia, but is not present in all cases. As a rule it is not general, but is commonly located in the frontal or occipital region, and is often accompanied by occasional vertigo and muscae volitantes. The headache, which is usually slight in degree, is either continuous or occurs at brief intervals. In the majority of neurasthenics actual pain is not complained of, but the sensations in the head are described as the feeling of "a constricting band about the forehead," "fullness in the head," as if there was "something pressing from within against the skull," etc. Frequently it is a sensation of weight or numbness, and occasionally throbbing. The headache and other sensations increase after fatigue, and are often diminished by rest. Difficulty in concentrating the attention is often present. As a result of the varied forms of cephalic paraesthesiae, such patients are inclined, more or less, to indulge in excessive introspection. They often become morbid and apprehensive, dreading the possibility of a brain tumor or other serious cerebral disease. All of these symptoms are modified in proportion to the attention given them by the patient. The presence of other signs of neurasthenia, their development or increase through mental effort or emotional excitement, and the absence of evidence of organic cerebral disease make the diagnosis clear. Headache that is confined to a small spot (which for many years has been described as "clavus hystericus") is comparatively rare in this country, and occurs most frequently among the premonitory symptoms of convulsive hysteria. The scalp is sometimes so sensitive that the slightest touch is not tolerated without wincing. In the majority of cases of hysteria, however, the headache corresponds with that of neurasthenia. It may be limited to one side and thus stimulate migraine. In some instances it may be characterized as a veritable psychalgia.

While headache cannot be considered as a symptom of epilepsy, its occurrence is at times of great importance in the diagnosis of obscure cases. An attack of "grand mal" is often followed by severe general headache, which may last for several hours. This fact is of value in interpreting the cause of the headache when it is mentioned as occurring in the early morning on awakening. It is at times indicative of a nocturnal epileptic attack, and the diagnosis is positive when such headache is associated with soreness of

the muscles and joints of the extremities, a bitten tongue or mucous membrane of the cheek, and wetting of the bed.

Ocular defects, such as errors of refraction and insufficiency of the ocular muscles, are a common source of headache. The two conditions may be found in various combinations. It has been claimed that fully 60 per cent. of functional headaches due to errors of refraction are caused by astigmatism alone, or in conjunction with other forms of ametropia.

The headache is produced by strain on the ciliary muscles, and frequently arises in connection with hypermetropic astigmatism. The pain may be situated in any part of the head, but it is more frequently located in the supraorbital region. It may be persistent in character, and is often aggravated by using the eyes. It is relieved temporarily by the instillation of atropine, which paralyzes the ciliary muscles, or permanently, by wearing suitable glasses. Headache caused by insufficiency of the ocular muscles may affect any portion of the cranium, but is often located in the occipital region. It may immediately follow the use of the eyes, but usually this is not the case, the pain occurring at irregular intervals. At times it may develop into a typical attack of migraine, and is often associated with symptoms of neurasthenia. The claims of certain writers, that the lack of balance in the action of the muscles of both eyes is of prolific cause of headache, and various forms of nervous disease, have certainly been much exaggerated. The headache arises as a result of repeated or continuous unconscious efforts to obtain and preserve binocular single vision. It is a fact well known to all ophthalmologists that so-called ocular headache does not occur in patients in whom there is a congenital or acquired absence of binocular vision, as such patients are known to habitually suppress the image in one eye. Hence, the causative element of "efforts at binocular fixation" is negligible under such circumstances. This occurs with high degrees of strabismus, paralysis of ocular muscles, when vision is greatly diminished or lost in one eye, and when there is considerable difference in the refraction of the two eyes. When headache occurs in such people, it is invariably due to some other cause. I know of a patient with ocular headache from muscular trouble, in whom the pain entirely disappeared after the accidental destruction of

one eye. The improved methods in the examination of the power and action of the eye muscles introduced within recent years has led to more accurate and thorough study of three conditions. Curiously enough, the muscular troubles, which occasion the greatest amount of discomfort to the patient, at times produce no evident changes in the gross appearance of the eyes. Hence, it is only after a most careful and painstaking investigation that they can be discovered and rectified. This is accomplished either by the use of suitable lenses to neutralize any existing refractive anomaly, and thus indirectly influence muscular action, or by surgical operation, or both. There must be a peculiar individual predisposition to headache, for there are persons who have both muscular and refractive anomalies without any symptoms of headache.

Various pathological processes in the nasopharynx may occasion headache, especially lesions of the inferior turbinated bones, adenoid growths, and polypoid obstruction to nasal breathing. Hence, headache is not an uncommon symptom in mouth-breathers. The pain is ordinarily located in the temporal region or forehead, and has often been known to disappear after the adoption of suitable surgical measures.

Headache occurring in patients with uterine or ovarian disease should not be looked upon as a symptom of reflex origin. It is merely one of many phenomena associated with a neurasthenic condition which so frequently accompanies intrapelvic disease in women. The headache frequently affects the vertex, but is more often general, and is at times accompanied by tenderness of the scalp. Other causes are usually operative independent of any local lesion of the uterus or adnexa. The morbid self-consciousness developed in many women who have, or think they have, uterine or ovarian disease, is often sufficient in itself to engender a depressive form of neurasthenia with its usual form of headache and paraesthesae. The same may be said *mutatis mutandis* of affections of the male genito-urinary organs.

Headache is sometimes the result of hyperaemia or congestion of the intracranial circulation. It may also be occasioned by cerebral anaemia. Active hyperaemia is due to paralysis of the vasoconstrictors permitting of distension of the arteries. The severe cases are attended by throbbing general headache, vertigo, tinnitus, *muscae volitantes*, pho-

topsia, insomnia, mental confusion and delirium, all of which are made worse by lowering the head. The face and scalp are red, and the conjunctivae injected. There are fullness and throbbing of the temporal arteries, and contracted pupils. In some persons such attacks occur periodically. The severe forms of this condition are fortunately rare. The milder degrees are not uncommon. It is usually due to mental overwork, emotional disturbances, alcoholism and sudden suppression of menstruation in plethoric women. I have witnessed a similar, but slightly modified array of symptoms occur periodically in young women, after removal of both ovaries. A prototype of this group of symptoms can be produced by the administration of various drugs, such as nitrite of amyl, nitroglycerin, etc.

Venous hyperaemia of the cerebral vessels is an important cause of habitual headache. It is most frequently chronic. The pain is of a dull character, and is often accompanied by a sensation of fullness and heaviness in the head. The face and ears may be slightly cyanotic in the more pronounced cases. Passive cerebral congestion is generally caused by mechanical hindrance to the return of blood from the head. Thus, it results from growths in the neck making pressure in the jugular veins, cardiac diseases, pulmonary emphysema and persistent cough, as in pertussis. It may also be produced by a tight collar, or continuous flexion of the head. The headache and other symptoms are aggravated by straining at stool, coughing, sneezing, stooping or muscular effort.

Anaemia of the brain, as a rule, is a part of a general condition of anaemia and malnutrition. It may be the result of arteriosclerosis including disease of the coronary arteries. Whether the general anaemia be of a chlorotic nature or from loss of blood, it is almost always accompanied by headache. The condition of cerebral anaemia in which headache occurs is generally of the chronic form. The pain may be frontal, vertical, or diffused, and is commonly of a dull character. It is often associated with attacks of syncope, tinnitus, dizziness, incapacity for mental work, depression and irritability. The pupils are usually dilated. The headache often diminishes or subsides when the patient assumes the recumbent position with the head low.

The diagnosis of the cause of headache depends entirely

upon the patient's history, and the presence or absence of certain associated symptoms. This will be readily appreciated after a review of the conditions in which headache occurs, as either a predominant or a concomitant symptom. The general health of the patient must always be carefully investigated, particularly with regard to the function of the digestive tract and the action of the kidneys. While the seat of the pain is often suggestive, too much stress must not be placed on this indication, for in all forms of headache the pain may vary in its location from time to time. In supraorbital and occipital neuralgia the pain is more or less paroxysmal and superficial in character, usually being confined to the anatomical distribution of the nerve, and is, therefore, not a true cephalalgia. Continuous headache, lasting many days, with nocturnal exacerbations, should always lead to the suspicion of cerebral syphilis. It is always necessary to decide whether the headache is due to a functional disturbance or the result of organic intracranial disease. A safe rule to follow in all cases of persistent headache is to ascertain if any signs of cerebral disease are present. A constant general headache, which is accompanied by optic neuritis and frequent attacks of vomiting, invariably points to intracranial disease. Examination of the pupils should never be omitted. In hyperaemic forms of headache the pupils are usually contracted, while in anaemia they are found dilated. When the pupils fail to react to light, or are absolutely rigid, the vision being unaffected, it is highly suggestive of cerebral syphilis or some other form of cerebral degeneration. The ophthalmoscope often proves extremely valuable in diagnosis. Although abnormalities of the cerebral circulation may exist without evidence of such disturbance in the retina, the discovery of "choked disk," or optic neuritis, or varying degrees of hypermetropia, myopia or astigmatism will often be the means of determining the cause of the headache. The most important use of the ophthalmoscope in cases of headache is to determine the presence or absence of optic neuritis. While its absence does not exclude organic disease, cranial disease, such as basal meningitis, increased brain pressure from cerebral tumor, or the vascular degeneration associated with renal disease.

As previously mentioned, careful investigation of the en-

tire organism is essential in every case, the most important element in the treatment of patients with headache being the recognition of the cause, as the pain is oftener dependent upon organic intracranial disease. The discovery and correct interpretation of such facts should be the principal guide in the adoption of therapeutic measures. In the toxæmic form of headache, as well as in other forms, it is absolutely necessary that the large intestine be kept free from fecal accumulation, and that the action of the digestive organs be regulated by suitable diet, etc. All supposedly reflex causes should be rectified, but too much stress must not be laid upon the paramount importance of such disorders, for many patients seem to possess an inherited or inherent predisposition to develop headache upon the slightest provocation. It is generally desirable and universally advocated that in habitual headache any existing error of refraction or eye-muscle defect be corrected, and I am fully aware of the value in certain cases of such intervention. But, even when such conditions are discovered and remedied, relief from the headache does not always follow, for several causes may be operative in the same individual. Therefore, before saddling a patient with spectacles for slight refractive errors, or cutting the eye-muscles; or operating upon the nose for deviated septum; or replacing by operation a slightly placed uterus, or suturing a trifling laceration of the cervix, etc., all other probable causes of the headache should be systematically eliminated.

Headache due to cerebral congestion may be relieved by the avoidance of all forms of cerebral stimulants and psychical excitement, regulation of the diet, free purgation by calomel and salines, and the administration of bromide of potassium and fluid extract of ergot, every three or four hours. Severe cases require cupping or blistering over the nucha, and local blood-letting or venesection. It would appear, from the recent experiments of Leonard Hill and others upon dogs, that the application of ice-bags to the head as a form of treatment has practically no effect upon the cerebral circulation. Hence, the time-honoured custom of using the ice-coil or ice-bag in cases of cerebral congestion or meningitis is without any scientific evidence as to its action. Its clinical value, however, is still an open question. When the ice-cap is used, it should always be applied to

the shaven scalp. In headache from cerebral anaemia, rest in bed with the head low, and special attention to the cause (which is usually general anaemia) is of prime importance. The administration of cardiac tonics and the use of iron and easily assimilable food generally prove successful when the organic visceral disease is absent. When headache accompanies the infectious or malarial fevers, the reduction of the temperature by hydriatic or other appropriate measures or the use of quinine are usually efficacious. In every form of headache we are often forced to resort to the temporary use of local applications of dry or moist cold or heat, or some form of anodyne or counter-irritant.

Antipyrin, acetanilide, phenacetine, caffeine with bromide of potassium, etc., or diffusible stimulants, such as aromatic spirits of ammonia, tincture of valerianate of ammonia, etc., and the various opiates or analgesics often prove serviceable as symptomatic remedies, but their selection should be left entirely to the judgment of the physician. The faith of the laity in so-called "headache powders" and the like has been more or less initiated and fostered by the medical profession, inasmuch as the trend of the medical mind has too often been misdirected toward the relief of the symptom—headache—without adequate investigation as to its cause.

Many of the statements that I have made may appear trite and commonplace, but this paper is only intended to serve in a suggestive way, by calling your attention to a familiar symptom, which is often treated in a rather haphazard manner, although it is really deserving of closer scrutiny and more careful attention in every case.—*New York Medical Record.*

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,

THE PROGNOSTIC SIGNIFICANCE OF ALBUMIN IN THE URINE.

Dr. Edward W. Lambert, the veteran Medical Director of the Equitable Life Assurance Society, read a paper upon this subject at a recent meeting of the New York County Medical Association, in which he made the statement that, according to his experience, which extended back to 1868, few men passed six months without an occasional albuminuria and the presence of tube-casts in the urine: the albumin indicated a disturbance of the renal function, but it by no means followed that it was an infallible sign of severe or incurable organic disease of the kidney. The quantity of albumin was no index of the gravity of the case. Transitory albuminuria might be the result of exposure to excessive heat or cold, of severe physical exertion and other causes. Its persistence and the person's manner of life were the important factors in the prognosis. The common use of the microscope in recent years had led to much confusion, because it had shown that all sorts of tube-casts were too frequently present in persons who were otherwise in good health to warrant the conclusion that they pointed to serious organic disease of the kidneys.

Dr. S. O. Vanderpoel, the Medical Director of the New York Life Insurance Company, in discussing Dr. Lambert's paper, said it was difficult in an individual case to express an opinion as to the prognostic significance of albumin in the urine, and the only way of reaching a satisfactory conclusion was to determine the mortality in a given class of cases. While many applicants who had been refused for life insurance during the past fifteen or twenty years because of the presence of albumin in the urine were still alive, a careful comparison of statistics showed that the mortality among such cases was

four or five times greater than among an equal number of healthy lives during the same period. In subdividing the albuminuries it was ascertained that the mortality was less among those that presented a transient albuminuria, for example, at certain hours in the day, and greater among these cases in which the albumin was accompanied by granular casts. Dr. Vanderpoel agreed with Dr. Lambert that the person's habits and mode of life were most important factors in the determining the prognosis in any individual case.

Dr. Brandreth Symonds, the Medical Director of the Mutual Life Insurance Company, emphasized the importance of differentiating between nucleo-albumin and true albumin. According to his experience, the former did not appear to be of any serious import, being usually due to some congestion or subacute inflammation of the genito-urinary tract. All true albuminurics should be regarded with suspicion, for the condition was not a physiological one, although some writers had applied that term to certain of these cases. —*Medical Examiner and Practitioner.*

POWDERED CUTTLEFISH IN INTESTINAL CATARRH.

Dr. George Herschell, of London, in the *International Medical Magazine* of October, 1902, has successfully used powdered cuttlefish bone in the rapid cure of some long-standing cases of chronic diarrhœa that failed to respond to any other kind of treatment. He gives one-drachm doses three times a day, which may be reduced to half that amount as soon as the stools show decided improvement. It should be combined with castor-oil every two or three days. He believes it to act mechanically upon the intestinal mucosa. On this point, however, we are not satisfied. Our friends who call themselves homeopaths have long used this remedy, but in their customary infinitesimal doses. As to whether the large amounts given by Dr. Herschell are really necessary, our own future experience will reveal. That it is, however, efficient where other well-known remedies fail is a demonstrated fact.—*Med. Council.*

Experiments in New York go to show that formalin is only a temporary check to the growth of germs and in the

long run proves an injury to the patient: Rabbits infected with blood poison germs and subjected to formalin treatment died several hours sooner than rabbits similarly infected and not placed under the treatment. Dr. Park and Dr. A. W. Payne, both bacteriologists of the health department, began experiments soon after the first cure of blood poisoning by Dr. Barrows was announced. Two dozen rabbits were inoculated at the same time with the germs of blood poison—the streptococcus germ. An hour later, a dozen of the rabbits were subjected to an injection of formalin. In every case save one the dozen rabbits on which formalin had been used died from 12 to 24 hours before the others. The rabbits on which the formalin treatment was tried showed symptoms of temporary relief. It was declared that the result of the experiments show that while formalin coagulated the bacteria and stopped the growth for a time, it injured the blood and seriously impaired the cells. The formalin also lessened the power of resistance to the bacteria. Dr. George F. Shrady said that he regarded the results of the tests conducted by Dr. Park as confirming his views and that of many others of the profession, that the formalin treatment was a failure.—*St. Louis Med. Rev.*

CHLOROFORM EFFICIENT TO REMOVE TAPEWORM.

In the *Southern Practitioner* of December, 1902, Dr. James M. Clopton, of Huntsville, Ala., gives full credit to Dr. William Porter for having cured him of a tapeworm that he had harboured for several years, during which time he had passed many pieces of his unwelcome tenant, aggregating several hundred feet in length. Three drachms of Squibb's chloroform, placed in large-sized capsules, was taken at the rate of one capsule every few minutes until he was well under its influence. A nearby medical friend was present, and gave him an active purgative of salts and senna as soon as stupour became manifest. After a period of not many hours, he was "parted from" his "old enemy." Since this he has applied the same treatment to other cases, with invariable success, despite many previous failures in the use of other vaunted remedies, as in his own case in which he used everything available during a period of several years, so that he finally became bedridden in his efforts to rid himself of the worm.

APOPLEXY.

The treatment of an attack of apoplexy is to put the patient immediately to bed, making no attempts to arouse him by shouting at and shaking him, and to enjoin absolute rest and quiet. It is a good plan to slightly elevate the head and turn to one side to prevent the tongue from falling back into the throat and closing the glottis. An ice-bag to the head may prevent further hemorrhage. If the pulse is full and bounding it is quite proper to bleed through the veins, that is, to administer aconite, but the use of the lancet is not advised. If there is evidence of collapse, whisky, strychnine and digitalis are called for.

If it is possible to make the patient swallow, the first thing to be given is one drop of croton oil with five grains of calomel in a little glycerine. Small quantities of peptonized milk, beef broth and light soups every three or four hours as soon as deglutition returns, or if necessary, the rectal feeding of peptonized milk may be resorted to.

Care must be taken that the normal amount of urine is passed; if not, catheterization will be necessary. Early precautions to keep the patient clean will go far toward preventing bed-sores, and turning the patient gently from side to side may lessen the tendency to congestion of the lungs. Bromides and the various cerebral sedatives will be necessary to control the restlessness.

Later conditions will arise, after six or eight weeks, when all symptoms of irritation have disappeared, requiring other methods of treatment, the galvanic current over the affected muscles for fifteen or twenty minutes every two or three days, to relieve the contracture, as well as massage and passive motion, must be persisted in, and if recovery or only improvement should take place, the physician can do much in guarding against those things which will tend to a subsequent attack, which is quite likely to follow sooner or later.—*Vt. Med. Monthly.*

DIAGNOSIS OF LOCOMOTOR ATAXIA.

Dr. J. Brown states that locomotor ataxia is one of the most common of the chronic nerve diseases. It is often unrecognized for years, although the most easily recognized of all the cerebro-spinal nerve lesions. To avoid overlooking this disease, examine every patient with symptoms of what-

ever nature for the knee-jerk and the pupil reaction; if both exists, the patient has no tabes. Examine further for evidence of tabes in any patient showing the following symptoms: Difficulty in walking, especially in the dark; gradual failure of vision, or a transient squint; lancinating pains, or neuralgic pains in legs, sciatica, chronic rheumatism. Sudden attacks of gastric pains, or causeless vomiting; or "bilious attacks" frequently repeated. Difficult or urgent urination ("bladder disease"), incontinence of urine or feces, numbness of anal region. Diminution or failure of sexual power. A sluggish ulcer on foot or leg. Spontaneous fracture of a long bone or a fracture from some trivial cause. Numbness of one or both little fingers or of ulnar sides of forearm.—*Medical Fortnightly*.

CHLORIDE OF ALUMINUM IN PAINS OF LOCOMOTOR ATAXIA.

G. Campbell (*St. L. Med. Review*) has tried this remedy with good success. He first saw it recommended by Growers, of London. Having occasion to see a patient at the St. Louis City Hospital a few days after reading Growers' paper, in whom these pains were especially severe and resistant to all forms of treatment, he suggested that the chloride of aluminum be tried. Some of the salt was purchased from a chemical supply house, the druggists not keeping it. A three per cent. solution was made and the patient put on ten drop doses cautiously increased. The pains ceased, but being so notoriously capricious a symptom, there was an inclination to attribute his recovery to chance, and little more was thought of the matter until, at a visit some months later, he found that on a return of the pains he had asked for some more of the medicine, but the hospital being at the time unable to supply him, he had sent a friend out, and with his own money bought some, and taken it again with a completely satisfactory result. The remedy was after this tried by Dr. Campbell in other cases in hospital and private practice with brilliant results. It was given in doses of one-half grain or less, three times a day, after meals, and largely diluted. In two large doses it acts as a gastric and intestinal irritant. In proper doses it has been given daily for a year and a half without disturbing digestion or injuring the general health. He has also found aluminum chloride very useful in paroxysmal neuralgias.

APOCYNUM CANNABINUM IN DROPSICAL CONDITIONS.

M. L. Hildreth (*West. Med. Review*) has used this remedy and found it particularly useful in the edema accompanying varicose conditions, and especially in the varicose veins of elderly persons. Wherever there is a lack of vascular tone, as in cardiac insufficiency, either from valve lesions, exhausting diseases, infections, etc., with capillary stasis, it has a very satisfactory action. It slows and steadies the action of the heart, stimulates the action of the kidneys, toning up the vaso-constrictors, thereby checking the tendency to transudation of serum. Dr. Hildreth uses Lloyd's tincture in two or three minim doses in water every three or four hours. In the discussion of this paper it was brought out that the only objectionable feature of this drug, its tendency to produce irritation of the stomach, could be obviated by giving very small and frequently repeated doses (one minim every hour or two).

CHRONIC NEPHRITIS WITHOUT ALBUMINURIA.

Elliott reports a number of cases for the purpose of illustrating and emphasizing the fact that albumin may be absent from the urine in even the dangerous stages of chronic nephritis. His paper ends with a number of conclusions, which we condense as follows :

1. Latency of symptoms is so constant a characteristic of chronic interstitial nephritis as almost to constitute its most salient feature.
2. Latency of symptoms does not constitute a point of absolute distinction between the early and the advanced stages or between the mild and severe forms of the malady.
3. Symptoms are especially liable to be absent and urinary signs uncertain during the stages of chronic interstitial nephritis.
4. Albumin is absent from the urine of this form of nephritis with great frequency. It may frequently be absent during the early stages. It may occasionally be absent until the disease enters the final stages. Albuminuria, therefore, constitutes a very unreliable diagnostic sign in this disease.
5. More reliable evidence of renal change is diminution in the gross amount of urinary solids, and especially significant is the presence of casts.

6. Chronic interstitial nephritis never exists as a clinically recognizable condition without the presence of casts in the urine. Although renal diagnosis cannot be founded on casts alone, they constitute a corroborative sign of high clinical value, when associated with other indications.

7. The secondary circulatory changes following chronic interstitial nephritis are so constant and characteristic as to furnish, in most cases, sufficient ground for the recognition of the disease before reference is made to the urine.

The diagnosis should be made, if possible, from the physical signs and symptoms, the urinary indications being regarded as corroborative rather than as essential evidence.
—*N. Y. Med. Journal.*

THE EXPRESSION TREATMENT OF MASTITIS.

Well recognized as the value of methodical expression is in cases of mammary engorgement, it is perhaps seldom so sharply exemplified as in a case reported by M. Thévenot at a recent meeting of the Lyons Society of the Medical Sciences. On the eleventh day after confinement the temperature, which had thus far been normal, rose to over 103° F. It fell but rose again on the fifteenth day, this time nearly to 106° F. The left breast was painful and presented nodules of tumidity that gave issue to pus mingled with milk. Methodical expression of the milk ducts was practiced for from twenty to twenty-five minutes, and then a moist compressive dressing was applied. The next day expression yielded nothing but milk. A few days later there was a fresh rise of temperature and the right breast was found swollen but without lymphangitis. Expression was immediately resorted to, and there was no further pain or fever. Thus, says M. Thévenot, an abscess in each breast was prevented.—*Lyon Medicale.*

FORERUNNERS OF ACUTE RHEUMATISM.

Attention is called to a couple of signs that allow us to make a diagnosis of rheumatic infection and to announce an attack of acute rheumatism before the appearance of fever and articular inflammation. It is hardly necessary to say how this is an important matter, since salicylic medication is

so much more efficient as it is begun at an early date, and the danger to the heart is warded off.

The two signs preceding an attack of articular rheumatism: (a) Irregular action of the heart; (b) Sore throat.

The arhythmia or irregular action of the heart peculiar to rheumatism is different from that of nervousness, intoxication, arterio-sclerosis, asystole, etc. Indeed, the number of heart-beats is decreased, oscillating from 50 to 60 beats per minute, instead of being increased; and while the myocardium is contracting with unusual force, the patient does not complain of anything like palpitations. Even when his attention is called to it (the impulse of his heart), he states that he is not experiencing anything unusual about his heart. But he complains of fatigue and apathy. This arhythmia appears on a sudden and lasts only from 48 to 76 hours, disappearing when the fever starts with the inflammation of the joints.

Therefore, when in persons of from 15 to 30 years and of rheumatic tendencies this condition is detected, it is a forerunner of an attack of acute articular rheumatism. While a good diagnostic sign, the condition described has no bearing as to prognosis, since those in which it is noticeable recover from their attack of rheumatism with a normal heart; but the fact shows that the germs are first at work in the heart, hence the rule of always watching the heart closely in rheumatic infection. (*Journal de Méd. et de Chir. Pratiques*, Nov., 1902). You are probably more familiar with the second forerunner alluded to, viz.: Sore throat; you know the rheumatic nature of many cases of tonsillitis, chiefly in children, hence the rule of watching the throat of those predisposed to rheumatism, and advising not only a swabbing, but a douching of the pharynx either with a Davidson or a fountain syringe, using a teaspoonful of potassium chlorate to pint of water and five drops of oil of wintergreen or of peppermint.—*Internat. Med. Annual*, 1902.

A CASE OF TYPHOID FEVER TREATED WITH ACETOZONE.

BY JOSEPH A. FRASIER, M. D., NEW BEDFORD, MASS.

[*New England Medical Monthly*, March, 1903.]

Mr. M——, aged 30, a chronic alcoholic, came to my office October 1, on the verge of delirium tremens. He reported having had five "dejections" that day, with blood

pouring out in all of them. He was sent to the hospital, where he was found to have a temperature of 106° . A large hemorrhage occurred at 7 p.m. The condition of the patient grew worse. The next day the pulse was 156 and thready. Digitalin was injected subcutaneously without result. As a last resort twenty minims of the 1 : 1000 solution of Adrenalin Chloride was given hypodermatically, and within six minutes there was a marked improvement in the heart's action. This dose was repeated at midnight, and again at 6 a.m. For two days the temperature remained at 105° , the pulse at 136, and the respirations at 56 a minute.

Acetozone in saturated aqueous solution was now given, two ounces an hour until 5 o'clock, when seven ounces was taken. At 7 p.m. there was a marked improvement, the temperature declining to 101.6° . Acetozone solution was now administered in hourly doses of seven to ten ounces. On October 4 two hemorrhages occurred; Adrenalin was given in half-hourly doses, and the use of Acetozone was continued. On October 6 the temperature suddenly rose to 104° . An ice-bath was given without effect on the temperature, and was repeated. At 8 p.m. the temperature dropped to 97.6° , and the patient was nearly in a state of collapse. Parke, Davis & Co.'s Fluid Extract of Digitalis was constituted for the digitalin with a better result. The use of Acetozone was continued, and improvement was regular. The patient sat up in a chair for the first time on the third of November.

In this case the Acetozone solution was continued regularly in the face of all complications, about 96 ounces being the average daily amount used during the first week of treatment. It was then given in gradually decreasing amounts until November 15, making forty-four days' use of the remedy.

FOUR CASES OF TYPHOID FEVER TREATED WITH ACETOZONE,

BY JOSEPH V. ANTILL, M. D., PHILADELPHIA.

[*Medical Bulletin*, March, 1903.]

Case 1.—Mrs. R——, aged 60. Eight to ten stools each twenty-four hours. I prescribed 15 grains of Acetozone in one quart of boiled water, with instructions to drink it freely when cool. On the third day the colour of the stools changed to yellow and they were less frequent. After the sixth day

the patient had but one stool a day, and the offensive odour had disappeared.

Case 2.—W. K—, aged 29, had six to eight offensive stools a day. Acetozone in watery solution was freely given, and on the third day the stools became less frequent, were of a golden-yellow colour, and had lost their offensive odor. The temperature reached the normal in fifteen days.

Case 3.—Mrs. Z—, aged 29 years, had been sick for four days; diagnosis enteric fever. The patient was three months pregnant. The bowels moved frequently at night. Acetozone, in water, was given freely. On the third day the stools became fewer in number. Later the bowels became constipated, necessitating the use of calomel every other day. The temperature became normal ten days after beginning treatment.

Case 4—E. E—, aged 9 years, had had looseness of the bowels for five days. After the administration of Acetozone solution for two days the stools became yellow, the bowels moving but once in twenty-four hours. Rose-coloured spots were abundant on the abdomen. Recovery.

FOUR USEFUL PRESCRIPTIONS.

Darier uses the following prescriptions in ophthalmologic work :

1. Cocaine and Adrenalin, to produce anemia and anesthesia when extracting foreign bodies or when performing cauterization and other operations :

℞ Adrenalin hydrochlorate (1 : 1000). 0.5 (10 drops)
Cocaine hydrochlorate, 0.1.
Sterile water, 10.0.

2. A strong solution for producing anemia :

℞ Adrenalin hydrochlorate (1 : 1000), 1.0 to 2.5 (20 to 50 drops).
Cyanate of mercury (1 : 2000) 10.0.

This solution should be instilled six to eight times daily; it works well in episcleritis, and is fairly a specific in spring catarrh.

3. As an astringent, in chronic conjunctivitis :

℞ Adrenalin hydrochlorate (1 : 1000), 1.0 (20 drops).
Cocaine hydrochlorate, 0.2
Zinc sulphate, 0.2.
Distilled water, 10.0.

4. For glaucoma, when an operation is not indicated:

R Adrenalin hydrochlorate (1:1000), 1.0

Pilocarpine hydrochlorate, 0.1.

Eserine salicylate, 0.02.

Distilled or sterile water, 10.0.

To be instilled two to eight times daily.

—*The Ophthalmological Clinique*, 1902, No. 17.

A CASE OF ASTHMA TREATED WITH SOLUTION ADRENALIN CHLORIDE.

BY N. W. JIPSON, M. D.

Member of the Attending Staff of the Lakeside Hospital, Chicago.

[*Kansas City Medical Index-Lancet*, September, 1902.]

Mrs. W—— had had paroxysms of asthma of increasing severity since childhood. For a time they could be relieved by the use of potassium iodide. As usual, all sorts of remedies had been tried, but only temporary relief was obtained from any method of treatment.

I first saw the patient two years ago, when she had a temperature of 102.5°, mucous and sibilant râles were heard over the chest, the expectoration was purulent, and I learned that the attacks had been quite frequent, and especially severe during the early morning hours.

After one month's unsatisfactory treatment I began the use of the Solution Adrenalin Chloride, 1:10,000, in an atomizer, instructing the patient to inspire deeply while using the spray in the throat and nose, repeating it every three hours. The relief was marked and immediate. The severity of the paroxysms was diminished, and after three days' treatment ceased entirely. A mild attack occurred on the fifth day, but upon investigation I found that the patient was using the spray only two or three times daily. The strength of the solution was now increased to 1:8000, and the patient was instructed to use it every three hours.

I am very happy to state that gradual improvement in strength and appetite set in, and at the present time, one month after instituting treatment with Adrenalin Chloride, the woman has had three weeks of immunity from coughing and wheezing, and has not used the spray during the last ten days.

THE PATHOGENESIS OF DIABETES.

H. S. Stark, New York, presents the facts underlying the theories embodied in the various views as to the pathogenesis of diabetes, and in briefly reviewing them brings out the following salient features: (1) The exact truth of the pathology of diabetes is not known. (2) There are no acknowledged and constant anatomical appearances of liver or of pancreas associated with diabetes. (3) There are no characteristic lesions in any other organ. (4) An impairment of the physiological functions of the ductless glands may be at the root of the disease. (5) Artificial glycosuria is not diabetes. The facility with which this phenomenon can be elicited implies its insignificance as a pathologic factor. (6) As far as can be ascertained from competent sources, there is hope that the vacuum in our knowledge of the nature of diabetes will soon be filled.—*N. Y. Med. Rec.*

CHOLELITHIASIS, MEDICAL TREATMENT OF.

Given a reasonable certainty of the presence of gall-stones in the gall-bladder or ducts, it calls for their removal by means of the surgeon's knife. Where, however, there exists some disease of other organs of the body, as the kidneys or the heart, which would render the use of an anæsthetic immediately dangerous to the health of the individual, it is questionable whether operation should be undertaken. If gall-stones are acute in their manifestations, the author advises to wait until the symptoms have diminished or subsided. If attended with jaundice, to wait a reasonable time to see if it does not diminish; and, if it does not, to attempt to improve coagulability of the blood by the use of calcium chloride. In recent years, by means of calcium chloride, the coagulability of the blood has been increased or improved to such an extent as to make a surgical operation much less dangerous than before it was given. The author would go farther than Kehr, if he understands him correctly, and say that if there are symptoms of gall-stones in the common duct, and they have subsided, and if following that, within a reasonable length of time, there are further symptoms or indications of gall-stones, he would urge operation. He understood from the paper read by Kehr at Washington that he would not operate on such cases. While the speaker made this statement from a practical point of view of

operating on gall-stone cases when the evidence was clear that they were present, surgeons should not forget that they owe a great deal of what they know to-day to Pasteur and Koch. It is the work of Pasteur, Koch, Lister and others that has enabled surgeons to open the abdomen in these cases and to treat them successfully. The medical treatment of gall-stones was instituted long before surgeons thought of opening the abdomen for the relief of this condition. The Carlsbad treatment has been in vogue for years, and surgeons should not censure medical men too much for sending their patients to Carlsbad or resorting to medical treatment, when it is known that a celebrated surgeon who, two years after operating on his own father for gall-stone, was attacked himself, and instead of undergoing an operation, went to Carlsbad for treatment. Frank Billings (Transactions of the Chicago Surgical Society, Annals of Surgery, September, 1903).

THE TREATMENT OF INSOMNIA.

H. Richardson, Baltimore, urges the importance of proper hygiene, and objects to many drugs commonly used. Opium does not produce the conditions necessary for normal sleep and may induce the opium habit.

Chloral produces effects which are more likely to produce natural sleep; it depresses the heart, dilates the peripheral vessels, lowers arterial tension, but decreases oxidation and lowers temperature. It seems to have a selective action on the brain cells, producing sopor, which may, however, be due to the cerebral anemia. In some cases, probably of anemia with want of tone of the vessels, it produces headache and insomnia. It is also said to increase fluidity of the blood and to crenate the red corpuscles. Although its physiologic action comes near producing the circulatory conditions of normal sleep it must act as a poison, for the chloral habit soon shatters the constitution.

Bromids reduce blood pressure and diminish the caliber of the vessels, showing that their action must be to reduce the output of the heart and not to dilate the vessels; they also reduce respiration and slow and weaken the heart, being a direct nerve poison, producing sluggish reflexes and defective co-ordination.

Hyoscin hydrobromate acts upon the spinal and cerebral

cortex, having little direct effect upon the circulation. Its prolonged use is apt to derange the mental faculties, and may be responsible for the mental impairment which so often follows the so-called gold cure for alcoholism.

Sulfonal and trional are probably more used than any other hypnotics, both by the profession and the laity. Potter, quoting Squibb, says that if it were not for the very evident advantage of sulfonal when used with care and under medical supervision, it would probably either be excluded from practice, or its sale restricted by legislative authority. It produces its hypnotic effect by direct action on the brain cells and upon the red corpuscles by dissolving lecithin. A dose of 1.3 grams (20 grs.) is invariably followed by a large amount of hematoporphyrine in the urine, showing a marked destructive power on the erythrocytes.

The other hypnotics on the market have practically the same effects as those mentioned; that is, they produce sleep by intoxication, and are therefore poisonous. The physiologic action of the bromids and of chloral come nearest to producing normal hypnotic conditions, but their toxic effects are well known.—*Am. Med.*

SENSORY MANIFESTATIONS IN APPENDICITIS.

Disturbances of sensation as symptoms in association with diseases of the abdominal viscera, and particularly of the intestines, are notoriously fallacious, and, if relied upon, misleading. Severe pain may accompany comparatively insignificant lesions, while, on the other hand, mere discomfort may be all that is complained of in presence of the gravest mischief. Tenderness in association with pain is no doubt of greater import, but the individual appreciation of what constitutes tenderness varies within such wide limits that only the experienced observer can safely gauge its degree and significance. As Mr. Mansell Moullin points out in a recent clinical lecture, the abdominal viscera are, for the most part, insensitive to pain, their nerves not being directly connected with the sensorium. The occurrence of pain depends upon circumstances, mostly of mechanical order, which have no necessary and invariable relationship with the particular lesion. It has been remarked that while the intestine itself is singularly insensitive to manipulation, the parietal peritoneum reacts very promptly, as, for instance, when traction

is applied to the mesentery. Inflammation, so long as it affects only the intestinal structures, including the visceral peritoneum, is unfelt, but the moment it involves the parietal layer pain becomes a prominent symptom. These considerations may explain how it is that in certain cases of acute inflammation of the vermiform appendix little pain or tenderness may be complained of, and the pain when present is probably due to the peristaltic action of the cecum or of the appendix dragging upon the attachment of the peritoneum to the abdominal wall. Pain is especially liable to occur when the appendix is adherent or the mesentery is short or has become twisted on itself. It follows that the cessation of the pain may be due to temporary paralysis of the muscular layer of the cecum and not, as one is apt to conclude, to subsidence of the inflammation. Absence of local pain, as Mr. Mansell Moullin points out, does not indicate anything. Tenderness, again, may not be felt so long as the inflammation is limited to the bowels, and its presence indicates that the process has extended to the parietal peritoneum or to the cellular tissue beneath it. The occurrence of pain at the much decried McBurney's point may be taken to indicate that the inflammatory process has extended to that part of the parietal peritoneum which is in closest and most immediate connection with the lymphatics that run from the inflamed organ. Inasmuch, however, as the lymphatics from other viscera may either communicate with those from the appendix or lie in their immediate neighbourhood, tenderness in this locality is not of itself positive evidence of appendicular mischief. In addition to the deep tenderness, inflammation of the appendix is often associated with a marked degree of cutaneous hyperesthesia—a phenomenon which does not admit of ready explanation. The sudden disappearance of this superficial tenderness has, in some instances, coincided with gangrene of the appendix, and this point is one worth bearing in mind in discussing the advisability of immediate operation. It follows that in cases of suspected appendicitis, pain and tenderness, when present, are symptoms of very variable significance, and their absence, in whole or in part, conveys no assurance of freedom from serious mischief. Even less trustworthy is the precise localization of the pain, for, as we have shown, this is dependent on circumstances and conditions only indirectly connected with the actual lesion.—*Med. Press and Circular.*

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.

REDUCTION OF INTUSSUSCEPTION.

D. J. Minchin, Berlin, Ont., reports the following method of reducing an intussusception which was successful in a case occurring in a child of eight months. The child was seen several hours after the occurrence of the trouble, and the parents refused to consent to abdominal section. The child was then inverted and the colon filled with hot water by means of a rubber bulb syringe, resembling a Politzer inflation-bag, and having a capacity of about four ounces. It was found possible to do this by pressing the syringe firmly into the anus during the child's efforts to expel the water, and then refilling the bulb when the paroxysm of straining had passed. Then, while manipulating the tumor through the abdominal wall with the left hand, the bulb was alternately compressed and relaxed, in much the same way as a plumber uses his suction pump in clearing out a stopped-up sink pipe, and after a little gentle manipulation in this manner, the tumor was felt to disappear under the fingers. This was followed by immediate relief of the urgent symptoms, although occasional vomiting and some pain persisted for a few hours longer, but the vomited matter was no longer offensive in character. The advantages of this procedure over the application of hydrostatic pressure by means of a fountain syringe are the greater control which the operator has over the amount of force applied and the benefit of an intermittent, rather than a continuous pressure.—*N. Y. Med. Rec.*

THE MEANING AND SIGNIFICANCE OF LEUCOCYTOSIS.

R. N. Wilson, Philadelphia, concludes:

The term leucocytosis must include every increase in the absolute number of the leucocytes of the blood examined as well as every increase in the percentage count of the various leucocytic forms.

A leucocytosis, of whatever nature, must always be regarded as a clinical sign of importance, but never of such weight as to influence against equally convincing physical signs.

A high percentage of the polymorphonuclear forms in the absence of an absolute leucocytosis indicates the presence either of pus or of some grave inflammatory process, together with a low vitality of the patient.

Specific factors may rarely exert such an unusual influence as to interfere with the customary reaction of the polymorphonuclear cells. At least one instance has been noted in which the total number of leucocytes was increased at the same time with a marked reduction in the number of the polymorphonuclear forms. This condition is, probably, seldom encountered.

Single counts of the leucocytes or single estimation of the leucocytic percentages are often misleading; while a persistent series of observations will seldom fail to aid in the diagnosis and treatment of the condition.

A gradual, but steady, rise in the total count of leucocytes above the customary number usually indicates the presence of an active and augmenting inflammatory influence. When this increase reaches large proportions it may be looked on as an indication of the presence of an active leucocytic process (seroses or purulent effusion, localized pus collection, pneumonic exudate, etc.), provided the clinical picture also bears out the suggestion.—*Four. A. M. A.*

THE USE AND ABUSE OF THE URETHRAL SOUND.

J. H. Dowd, Buffalo, offers some rules for the use of the sound:

1. When the urethra has been involved by inflammation, specific, or otherwise, no instrument, and especially the steel sound, should be used until the urine is clear excepting for shreds or floating particles. (Prostatic plugs).

2. The urethra should in all cases be flushed with an antiseptic solution (formaldehyde, 1-3,000) before the passage of any instrument. Following its withdrawal an astringent should be used, preferably silver nitrate 1-10,000.

3. A sound should never be passed for at least three months following acute gonorrhoeal infection, and then only when the urine is as in No. 1.

4. When dilation of a stricture will answer, sounds are increased in size according to the tissue forming the pathologic growth and its location. True gonorrhoeal strictures of the deep urethra may be dilated five or six numbers at each sitting, up to 18 or 20 F; following this two or three numbers should be the rule.

5. In case of traumatic or gonorrhoeal stricture in the pendulous urethra, or when the sound is followed by marked irritation, etc., cutting gives the best result.

6. When the contraction seems not to dilate without too much force, weekly treatments being followed by considerable irritation, making the interval 10 to 14 days is generally followed by the most gratifying results.

7. Stricture can be permanently eradicated. This occurs when after dilating the circular muscles of the canal to their fullest extent, without rupturing, no blood stain is found in the washings after four to six dilations which have varied from one to four months apart.—*Am. Med.*

INOPERABLE TREATMENT OF CANCER BY FORMALIN.

The writer was led to try his method from his observation, twelve months ago, that formalin in 2-per-cent. solution had the property of coagulating egg albumin when whole eggs were immersed in it for a few weeks. He argued that, if he hardened the morbid tissue, he might convert the growth into a foreign body, and nature would proceed to dislodge it—an inference which proved correct.

In from three to seven days after application the cancer-mass begins to detach itself in the same way that necrossed tissue separates in gangrene. A line of demarkation is formed at the edge of the malignant mass, and separation takes place in a few days, the time varying with the size and nature of the disease.

Some twenty-four to forty-eight hours after the first application the objectionable, foul-smelling discharges cease, thus showing the powerful deodorizing quality of formalin

even in 2-per-cent solution. In proportion as the foetid discharges lessen, the patient becomes more bright and cheerful. In from twelve to sixteen days he was able to remove the growth in three cases—a sarcoma of the breast, a scirrhous of the breast, and an epithelioma of the lip (recurrent), leaving in their stead healthy granulating tissue, the skin gradually growing and closing up the wounds. He has repeatedly reapplied formalin during the healing process without any effect on the granulation tissue left, thus showing that no signs of the original growth remained, for skin will not grow over unhealthy tissue. The process of separation is completed by the aid of a pair of forceps and scissors to snip the fibrous bands that pass into the underlying granulations.

The strength of formalin solution should be between $1\frac{1}{2}$ and 2 per cent. If weaker than this, the hardening process is not satisfactory and the application must be continued for a longer period, thus losing time, and the process is extremely painful to the patient. Likewise, if 2 per cent. is exceeded, the application is painful, the diseased mass becomes surface hardened, separation is difficult, and the risk of destroying the skin around becomes greater the stronger the solution used, until the escharotic qualities of the formalin manifest themselves.

The method of application is as follows: "Absorbent lint soaked in 2 per cent. formalin solution (made by adding 19 parts of distilled water to 1 of commercial formalin) and laid on the tumor; this is covered with jaconet and cotton wool and bandage on. The dressing should be changed six-hourly. After the third or fourth dressing the discharges and the foetor cease. The further process is an aseptic one. In three to seven days the tumor loses its elasticity and becomes darkened, friable and insensitive. The further use of formalin is painless, and separation takes place as above described. Formalin in 2-per cent. solution appears to exert a selective power on morbid tissue, or perhaps it is the tissue being more tender by virtue of its younger age and rapid growth, is less resistive to its action than the more mature tissue. It also acts as powerful stimulant, thus aiding nature to get rid of its unwelcome parasite. The treatment of the healing surface resolved itself into the ordinary method with alternate boracic fomentations or sal alembroth as occasion suggested." A. F. Meredith Powell, *British Medical Jour.*, May 30, 1903.

THE MORTALITY IN APPENDICITIS; ITS CAUSE AND LIMITATION.

A. J. Ochsner, Chicago, gives the statistics of his 337 cases. He makes the following suggestions for the treatment of appendicitis with a view of reducing the mortality:

Patients suffering from chronic recurrent appendicitis should be operated during the interval.

Patients suffering from acute appendicitis should be operated as soon as the diagnosis is made, provided they come under treatment while the infectious material is still confined to the appendix, if a competent surgeon is available.

Aside from insuring a low mortality this will prevent a series of complications, mentioned elsewhere in this paper.

In all cases of acute appendicitis without regard to the treatment contemplated, the administration of food and cathartics by mouth should be absolutely prohibited.

In case of nausea or vomiting or gaseous distention of the abdomen, gastric lavage should be employed.

In cases coming under treatment after the infection has extended beyond the tissues of the appendix, especially in the presence of beginning diffuse peritonitis, conclusions four and five should always be employed until the patient's condition makes operative interference safe.

In case no operation is performed neither nourishment nor cathartics should be given by mouth until the patient has been free from pain and otherwise normal for at least four days.

During the beginning of this treatment not even water should be given by mouth, the thirst being quenched by rinsing the mouth with cold water and by the use of small enemata. Later small sips of very hot water frequently repeated may be given and still later small sips of cold water. There is danger in giving water too freely.

All practitioners of medicine and surgery, as well as the general public, should be impressed with the importance of prohibiting the use of cathartics and food by mouth in cases suffering from acute appendicitis.

It should be constantly borne in mind that even the slightest amount of liquid food of any kind given by mouth may give rise to dangerous peristalsis.

The most convenient form of rectal feeding consists in the use of one ounce of one of the various concentrated.

liquid predigested foods in the market, dissolved in three ounces of warm normal salt solution introduced slowly through a soft catheter, inserted into the rectum a distance of two to three inches.

This form of treatment cannot supplant the operative treatment of acute appendicitis, but it can and should be used to reduce the mortality by changing the class of cases in which the mortality is greatest into another class in which the mortality is very small after operation.—*Med. News.*

SHOCK PRODUCED BY GENERAL ANESTHESIA.

F. B. Turck, Chicago. The complex clinical picture of the after effects of chloroform or ether anesthesia is made more clear by experimental research, from which may be deduced the following facts :

The circulatory disturbance is a direct result of the chloroform or ether acting on the vasomotor centers.

The prolonged effect of chloroform and ether on the splanchnic circulation results in congestion associated with fall in temperature. Temperature may fall without fall in blood pressure.

The direct effect of the toxins of chloroform and ether acting on cells, with disturbance of metabolism, may produce toxic products.

The resulting elaboration of toxins produces symptoms of "auto-intoxication," associated with the formation of hemolytic and agglutinating bodies, and precipitins.

Indirect toxic effects result from retention of toxic products through disturbances of elimination.

There is lessened resistance of the blood serum to normal excreted toxins.

There is lessened resistance of the blood serum to bacterial toxins.

There is diminished resistance to the development of saprophytic and pathogenic micro-organisms.

This may be partly explained by the changes observed in the sera, such as diminished antiferment properties, hemolysis, agglutination, precipitins, etc.

That reflex effects result, such as reflex irritation set up by the excretion of the anesthetic into the stomach and intestines.

As the result of atony there is the formation of toxins in the stomach and intestines through bacterial growth.

Atony of the stomach and intestines results in the accumulation of gases and interference with the circulation.

There is increased toxicity of the stomach contents in the presence of chloroform and ether.—*Four. A. M. A.*

A NOTE ON SOME FURTHER USES OF PICRIC ACID.

F. V. Milward, Birmingham. The merits of picric acid in the treatment of burns are now so well known that it is surprising that its use in other surgical conditions has not received greater recognition. The lesions in which it is particularly helpful are those in which the loss of superficial epithelium has produced a raw and painful sore, discharging serum and seropus. This "weeping" surface is best seen in acute eczematous conditions, but it is also very noticeable after slight traumatic abrasions. From the length of time that these take to heal, they may easily become infected, and produce a lymphangitis and its sequelae. Picric acid, which is a coagulant and an analgesic, is a simple and effective remedy, and promotes rapid healing. It is best used as a saturated solution, 1 in 95, of distilled water. The rationale of the treatment seems to be the formation of a pellicle of coagulated albumen over the wound, and so the protection of the ruptured superficial lymph spaces and exposed nerve endings.

A troublesome affection of the fingers, which is especially prone to occur in dressers, house surgeons, and practitioners, who come much into contact with pus, is a peri-onychia affecting the roots of the nails. It usually arises as a redness and tenderness of the soft parts over-lying the lunula and sides of the nail. If the free margin of the soft tissue where it extends over the base of the nail be separated from the latter, a bead of pus will exude and a little cavity be discovered, where this has been confined. Wet dressings appear to encourage the suppuration, and dry dressings cause the pus to become still further pent up, until very frequently it will burrow under the very root of the nail and attain its deep surface. Here it is still more difficult to reach. This trouble may be speedily cured by a little attention and the use of picric acid. By the aid of the head of a large needle (a probe is too thick) the soft parts are thoroughly separated from the nail. A few threads from plain white gauze, or a wisp of cotton wool are then soaked in a saturated solution

of the acid, and pushed to the very bottom of the cavity. The soft parts and the root of the nail are thus kept entirely separate by this application, which should be renewed about three times daily. If this is done pain, inflammation and discharge rapidly subside, and the further destruction of the young nail in its bed by the pyogenic organisms is prevented.

Milward has found the remedy to be of use in the treatment of soft corns. Two or three applications will quickly dry them up, and render them painless.

Ingrowing toenail may be successfully treated by excising the offending sharply pointed corner of the nail which is digging deeply into the ulcerated soft parts. Picric acid freely applied will subsequently harden and render the latter insensitive, and it is rarely necessary to remove the nail as a whole.

In some cases that form of eczema known as intertrigo will be greatly benefited by the acid, and Milward has had particularly good results by applying it to this condition when affecting the interdigital clefts of the toes. It is however, more suitable for adults than children.—*Brit. Med. Jour.*

THE SURGICAL TREATMENT OF VULVULAR AND ANAL PRURITIS.

Mr. Rochet, in *Revue de Chirurgie* (May, 1903) reported to the *Société de Chirurgie*, of Lyons, cases of aggravated anogenital pruritus, or as he terms the condition, a true perineal dermal neurosis.

In woman the pruritus extends into the vagina and even into the urethra. On examining, nothing is seen but perhaps at times a thickening of the skin, which is rough, lichenoid, without any vesicles or papules. Cauterizations and local scarifications, which are recommended, were tried without avail. One of the patients had been in Guyon's surgical ward in Paris and also in Spillman's at Nancy.

Life had become unbearable. Another patient had become addicted to narcotics and was very despondent. Eneervation of the painful area was proposed.

On the female patient he simply resected the internal pubic nerve; this was done in 1899; relief has been completely permanent.

In the male patient he avoided the posterior branch of the pubic nerve, but cut the perineal branch of the lesser sciatic, the cutaneous anal nerve. These multiple sections gave excellent results.

Last year Mr. Tavel (of Rome) said he had followed this form of treatment by exposing and tearing away the different nerve filaments of the perineum.

Mr. Rochet believes that the severing of the pubic at the inner surface of the ischium with eradication of the two large branches is sufficient.

The operation is very quickly done by a single curvilinear incision around the ischium.

SOME RECENT METHODS OF INTESTINAL ANASTOMOSIS.

George Gray Ward, Jr., gives in a recent number of the *Medical Record* a brief resumé of the subject of intestinal anastomosis from the historical point of view, and divides the many methods into three classes :

1. Where a foreign body is placed in the lumen of the bowel to facilitate accurate approximation, with or without suturing. This class includes the many devices suggested from the time of the Four Masters down to the present day, such as goose trachea, rings potato, chromatinized gelatin, tallow, raw hide, rubber, cardboard and cork, and lastly, most ingenious and popular of all yet described, the Murphy Button, and Harrington's Segmented Ring.

2. In this class belong all the stitch methods without mechanical aids, including the interrupted and the continuous sutures with their many modifications; here belong the Maunsell method and the more recently described Connell suture, which latter especially must ultimately come into more general favour.

3. The methods wherein mechanical devices are used to facilitate the placing of the sutures and are then withdrawn. In this class are to be noticed the inflatable and collapsible bulb of Halsted and the great variety of forceps suggested by Mudd, Grant, Morrison, Lee, Laplace and O'Hara.

Of the three classes he selects one from each as worthy of special commendation, namely, the Harrington segmented

ring, the Connell suture and the O'Hara forceps. These all have special points of excellence and each is to be preferred in its class. Thus, the Harrington ring is to be preferred to the Murphy button, the best hitherto devised in its class, because it is readily broken up into four segments, which naturally pass out with greater facility and certainty than the button, takes up no more room when in shape and yet has a much larger lumen and is very much lighter; the Connell suture is superior to the Maunsell because no longitudinal slit is required and the knots are all buried within the lumen of the bowel; and, finally, the O'Hara forceps have decided advantages over all other apparatus in their class and perhaps over any of the other classes, because only one size is needed for all cases; they are very easy of application, they serve at the same time as clamps and avoid contamination from the interior of the gut by never necessitating the exposure of the lumen during the whole operation. These are important advantages of the last named instrument, but they all have some characteristics which commend them to the surgeon who may wish to be slave to no singular apparatus. One should make himself master particularly of the Connell suture because this requires no special apparatus, only a needle and thread being needed for the most complicated procedure in intestinal procedure.

Editorial.

CANADIAN MEDICAL ASSOCIATION.

The meeting was held on August 17, at London, Ont. The Nominating Committee recommended the following officers for the ensuing year.

President—S. J. Tunstall, Vancouver, British Columbia,
Vice-Presidents.—Prince Edward Island, S. R. Jenkins, Charlottetown; Nova Scotia, DeWitt, Wolfville; New Brunswick, Blair, St. Stephen; Quebec, F. G. Finlay, Montreal
Ontario, A. McPhedran, Toronto; Manitoba, J. A. MacArthur
Winnipeg; Northwest Territories, T. A. Patrick, Yorkton,
Assiniboia; British Columbia, R. L. Fraser, Victoria.

Provincial Secretaries.—Prince Edward Island, A. E. Douglas, Hunter River; Nova Scotia, C. D. Murray, Halifax; New Brunswick, Crawford, St John; Quebec, A. MacPhail, Montreal; Ontario, I. Olmsted, Hamilton; Manitoba, Wm. Rogers, Winnipeg; Northwest Territories, D. Low, Regina; British Columbia, W. Brydon-Jack, Vancouver.

General Secretary.—George Elliott, Toronto, re-elected.

Treasurer.—H. B. Small, Ottawa, re-elected.

Executive Committee.—W. J. McGuigan, and Dr. Lefevre, Vancouver; J. Gibbs, Victoria.

Place of meeting in 1904, Vancouver, B. C.

The report of the Nominating Committee was unanimously adopted.

BANQUET TO SIR JAMES GRANT.

In recognition of fifty years spent in the practice of medicine, during forty-nine of which he was located in Ottawa, Sir James Grant was recently entertained to a banquet at the Russell House by the medical fraternity of the capital and presented with an address and a silver loving-cup. Covers were laid at the dinner for eighty-five guests, and the medical profession of the Ottawa Valley was represented by its most distinguished members, who vied with each other in showing attention to the honoured guest of the evening, who, after half a century of labour in the most arduous of callings, still retains in a marvellous degree the vigour and elasticity of youth. Sheriff Sweetland, M.D., filled the chair with dignity, having on his right Sir James Grant, and on his left Sir Frederick Borden. The usual loyal toasts were proposed and honoured with characteristic heartiness, after which the chairman proposed the toast of "Our Guest," and alluded to his having introduced the first Canadian Pacific Railway bill. The address was read in an impressive manner by Dr. Cousens and the presentation made amid enthusiastic cheers. Sir James Grant, who appeared to

be greatly touched by this demonstration of friendship, returned his hearty thanks and favoured the company with some reminiscences of his medical career. Proceeding, he said :

“In no profession at the present day have greater advances been made than on the lines of surgery and of medicine. At the commencement of the nineteenth century the investigations of Jenner with reference to vaccination for the prevention of smallpox were being vigorously prosecuted. Since that day, notwithstanding the great opposition to this extremely important principle, it is now generally recognized that vaccination is the only safe means that can possibly be adopted to abolish finally the spread of this loathsome disease of smallpox. At that time, and for years afterwards, the study of anatomy was very much interrupted owing to the want of material. Physiology was then in its infancy, and pathology was very largely a matter of speculation. Chemistry was in stages of possible investigation, and chemical medicine rose up almost in advance of any other department of medicine by the careful scientific investigation of Lennec, of Paris, who so advanced the theory of disease connected with lung tissue that he established a name and reputation recognized throughout the scientific world. In those days peritonitis was a common disease, and almost universally fatal. A major operation was considered the equivalent almost of a death warrant. Two great lights in London, Bright and Addison, scientific workers in connection with Guy's Hospital, brought to light knowledge concerning the kidneys and kidney disease of a most remarkable character. Bright's disease was then defined, and dropsy, the result of it, explained clearly and scientifically, and Addison pointed out also the cause of bronzing of the skin. So these two scientific men, in connection with the hospital, accomplished an advance in the profession of the most remarkable character.

Surgery was advanced by Syme and Chopart, who, by their careful investigations, threw so much light on the whol

subject as to make doubtful points at once comprehensible to the general observer, and added greatly to the means of saving life. Shortly afterwards Simpson, of Edinburgh, and Long, of the United States, introduced the principle of anesthesia, which accomplished much towards the relief of suffering humanity under severe operations. The three great advances in the medical profession during the fifty years were ; (1) the introduction of antitoxin for the cure of disease ; (2) the germ theory of disease as advanced by Pasteur and subsequently worked up by Lister, and (3) preventive medicine as largely brought about by the medical profession notwithstanding that it lessened their prospect of revenue.

Then we had the remarkable investigation, Laveran's plasmodium, from which the discovery was developed of mosquitoes impregnating individuals, and so disposing of the old idea that such fevers spread from marshes and decayed vegetable tissue. Then, again, tetanus, which was supposed to arise from a rusty nail, is now known to be due to the germs in the soil communicating themselves to the system through the wound made by the nail. Furthermore, we have the theory of blood globules as a means of diagnosis of typhoid fever. Sir William Jenner established an almost world-wide reputation by his investigations with reference to typhoid, supposing that fever sprang from ulceration in the bowels. But Prof. Osler, of Johns Hopkins University, and a Canadian, has thrown great light upon this whole subject, and his researches show that Jenner's idea is not tenable, and that typhoid fever, as regards its origin, rests on a much wider basis. A most important advance is that with regard to X-rays and its utilization, not only in the investigation and advance of surgical conditions and diseases of the system, but also its application in the treatment of cancer. These are a few of the points to which I shall merely now advert, and from such we can form an idea of the remarkable advance which has been made in medical and surgical science within the last half century.

And if science is to be progressive, and I have no doubt it will, the next quarter of a century will throw much light upon obscure points of to-day which will undoubtedly prove of vast service to humanity. (Loud applause.)

Dr. Powell, in felicitous terms, proposed the toast of the Parliament of Canada. He mentioned with it the names of Sir Frederick Borden, Dr. Macdonald, Deputy Speaker, and Senator Sullivan, and praised, as unexcelled, the hospital equipment sent out by the Minister of Militia to South Africa.

Sir Frederick Borden said that Parliamentary government in Canada had been a tremendous success. He paid tribute to the wisdom displayed in building the C. P. R. That was shown to-day by the thousands of settlers who were flocking to settle in the great wheat belt. There was a magnificent future before Canada, but the problems to be worked out before the country solved its destiny would test the sagacity of the Canadian statesmen and Parliament. The possibilities in front of this country were so enormous that we could not properly appreciate them at the present moment. He did not believe that any one of them could see the possibilities that would be realized within the next quarter or half a century.

The other toasts were: "The Profession," proposed by Dr. Klotz; and acknowledged by Dr. Montizambert and Hon. Dr. Sullivan; "Our Hospitals," proposed by Dr. Cook and replied to by Dr. Chabot, Dr. Hanna, Dr. Kidd and Dr. Law.