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CANADA

MEDICAL RECORD

JUNE, 1897.

Original Communications.

NEUROSES OF NASO-PHARYNX.

Clinical Lecture delivered at the Western General Hospital, Throat and Nose Department.

By GEO. T. ROSS, M.D.

Fellow American Laryngological Association, Laryngologist to the Hospital, etc.

The various neuroses are simply expressions of perverted nerve function of different areas of the cerebro-spinal and sympathetic systems dependent on many different causes. Irritation of any sensory nerve can produce these neuroses. If the peripheral irritation is located in the nose we get nasal reflex neuroses. The irritation is transmitted by the sensory filaments of the trigeminus affected, to its respective ganglia, where if healthy action and normal nerve control exists no neurotic signs appear. But continued irritation may disturb a healthy ganglion resulting in reflex vaso motor impulse in the area whose vessels are controlled by that ganglion. The afferent sensory impression is changed into vaso-motor phenomenon. The rôle of the sympathetic ganglion is control of vaso-motion, and any interference with it causes changes in the circulation, which in turn brings about perversion in function of part so affected. When a function is physiologically altered we have a pathological condition in which disease is more or less pronounced. For instance, notice how in the strongest man the effect of a mental impression on the vaso-motor centres controlling the heart's action and general arterial supply causes loss of nerve control, and produces in some cases immediate syncope, Again, any alteration in blood supply to the nerves being brought about, their nutrition is impaired and their physiological function

perverted. Any part of the respiratory tract may be primarily or secondarily the starting point of peripheral irritation, but the nasal spaces, especially the region of the middle turbinate, the posterior part of the inferior turbinate and the septum opposite are the areas oftenest involved in nasal reflex neuroses.

For perfect action of the sense of smell we must have normal olfactory bulbs, healthy mucous membrane and free access of air with odorous particles to excite the nerve filaments. This healthy mucous membrane must cover the superior turbinated bone, the upper half of the middle turbinated, and the upper three-quarters of the posterior part of the septum as clearly shown by the plates now handed you. Perversion of smell may arise from any change in these necessary conditions. Again, one may be afflicted by imaginary odors, although the special sense remains perfect for all odors, due probably to some pathological condition of the nerve or bulb or brain lesion? Hyperesthesia of smell may follow exhausting diseases which impair nerve force and exaggerate all nervous impressions. If time permitted, cases might be related illustrating this state. Abnormal function of the olfactory nerve may be reflexly excited by troubles of the sexual organs, and a recent case is related in a medical journal where inveterate priapismus was unwittingly cured by extraction of a piece of hypertrophied inferior turbinal. McKenzie has related instances of the connection which exists by way of the sympathetic nerve between the sexual organs and the nasal mucosa. Loss of smell (anosmia) may be caused by cold in the head, acute catarrhal inflammation of nasal passages, or any change preventing access of air. Polypi, tumors of pharvnx or naso pharynx or paralysis of alæ nasi may cause it. Repeated irritation as inhaling tobacco smoke of cigarettes impairs the sense of smell. Some persons with a dry mucous membrane can only smell in moist air. There are numerous phenomena of nasal reflex neuroses which time prevents us alluding to, but that of nasal cough or reflex nervous cough produced by nasal disturbances must be mentioned. Mackenzie showed that this trouble had not received the attention it merited. Much has been written about hysterical, nervous or convulsive cough, arising from reflex irritation in different parts of the body, but the most frequent cause of this cough is some pathological change in the naso-bronchial mucosa. McKenzie first showed that cough was frequently dependent on this condition, and that it could be produced by artificial irritation even when no evident disease existed, and that there existed specially sensitive areas (cough areas) in the nose. These parts are where nerve filaments from the spheno-palatine ganglion are distributed, the reflex taking place through the vaso-dilator nerves from the superior cervical ganglion of the sympathetic.

The causes of nasal cough are simple coryza, hypertrophic rhinitis, spurs and deflection of septum, polyps, hypertrophy of the cavernous tissue over the vomer, adenoids of naso-pharynx, etc. Almost every pathological condition causing local irritation in nasal mucosa may produce cough, but hypertrophy of the middle turbinate seems the most constant cause. The importance of locating this cause of cough will appeal to you when you remember that cough is constant in the beginning of lung disease and is the advance sign of phthisis when as yet the usual physical signs are absent. Many persons have been sent to Florida, Colorado, etc., because of cough when the trouble was a simple reflex one. My case book shows records of this kind where by correcting existing local trouble in the upper portion of the respiratory tract the cough disappeared. Treatment should be directed, however, not only to the local trouble when it exists but also to improvement of the general nervous system, as without some functional alterations of the nerve centres, whether of the sympathetic or of the basal ganglia, there could be no manifestation of reflex phenomena. Sometimes a cough of years' standing has been cured in a few days or weeks by appropriate treatment of the nasal disease. Burnett refers to a case of cough of three years' standing, causing great anxiety to the patient and her friends. This was cured in one week by nasal treatment.

A case is related by Bobone where a patient suffered, periodically from spasmodic attacks of sneezing of a very violent nature. On two occasions the attacks followed so rapidly that cyanosis and collapse occurred, the patient almost dying. The trouble was permanently cured by treating existing nasal disease. Cases of epilepsy are said to have been

cured by relief of co-existent nasal affection, but probably in these instances some antecedent epileptic proclivities were aggravated by nasal irritation which acted as a prominent exciting cause. Megrim, supra-orbital neuralgia, diffuse headache, œdematous conditions of nose and conjunctiva are said by Hack to be almost invariably nasal in origin, and can be cured by galvano-caustic applications to the turbinated bodies. These views are supported by many other authorities. Stammering and stuttering frequently result reflexly from irritation in the nose and naso-pharynx. Neuroses of the pharynx are divided into impairment of the sensory and of the motor functions. As regards sensation, we get conditions of anæsthesia, hyperæsthesia, paræsthesia and neuralgia. Pharyngeal anæsthesia is a sign of progressive bulbar disease. It is often caused by diphtheritic paralysis, and is sometimes found in insane patients who have no paralysis elsewhere. Loss of sensation here generally means the same condition in larvnx, velum, and surrounding structures. Galvanism to throat and nerve tonics are about all you can expect benefit from.

Hyperæsthesia of pharynx is a common neurosis in this The points of greatest sensitiveness are arch of palate and vault of pharynx. Cocaine and resorcin spray will probably overcome what would otherwise prevent laryngoscopic examination. Any existing chronic inflammation or diathesis calls for treatment according to indications. Paræsthesia of pharynx most frequently results from hysteria, and often follows removal of foreign body. The sensations are those of a hair, fishbone or grape-seed tickling the throat. It is also a common sign of subacute and follicular pharyngitis. If caused by a foreign body the sensation disappears usually in a few days after its removal. It is a common occurrence to have people tell you after removal of an offending substance that it is still there owing to the peripheral nerves continuing to convey the sensation. On subsidence of inflammation the paræsthesia disappears, but this does not always happen at once, so to produce a good moral effect exhibit the offending article if possible. Remember that in some cases this disordered sensation will remain for months or years, or recur at intervals, when the cure will be difficult. Treatment consists in allaying inflammations giving bromides and soothing anodynes with zinc, arsenic and quinine.

Neuralgia, myalgia or rheumatism of the throat has been described, but difficulty is often found in locating the exact spot from which pain emanates. The removal of an enlarged follicle will sometimes cause pain to disappear, but in hysterical or nervous women there may be no apparent cause, and then we must regard it as a local sign of a general condition. Where no local cause calls for treatment you must direct your energies to the constitutional state.

Neurosis of motion is divided into paralyses and spasms. Paralysis may be due to bulbar disease, diphtheria, or may complicate facial paralysis. The central lesions causing this neurosis are bulbar myelitis, hemorrhage, embolism, tumors and meningitis of base. The result is usually a fatal ending. The treatment would be local blood letting, ice bags to nape of neck; salines and other antiphlogistic measures in the acute form. In the chronic form there is no treatment of any avail. Many things are advised, but no good results have been got. That paralysis following diphtheria and membranous sore throat usually follows fourteen days after convalesence has begun. Must use Galvanism and Faradism every other day until improvement. Strychnine is useful. May have to feed by stomach tube.

The more severe spasms of the pharynx occur in acute uvulitis, eedema of glottis, hydrophobia, and as reflex signs of central tumors. Remove all possible sources of irritation, as intranasal or other growths, disorders, etc. If a simple neurotic state is the cause, hypophosphites, iron and arsenic are indicated. Diet, exercise and freedom from all excitement are essential.

Selected Article.

THE NEW TUBERCULIN OF DR. KOCH.

The following translation and epitome of Dr. Koch's recent article in *Deutsche Medicinische*, *Wochenschrift*, April 1, 1897, in the *Medical Review*, conveys the essential portion of this interesting communication.

Prof. Robert Koch has always thought that there existed two kinds of immunities. The one is the immunity against chemical toxins: the animal, as in tetanus for example, is vaccinated with a serum antagonistic to the tetanic toxins; there remains during a more or less lengthy period of time a resistance against the action of these toxins. After such an immunization large quantities of the toxins can be introduced into the circulation with impunity. On the contrary, the serum has no action against the bacilli of tetanus themselves, which can proliferate and prosper in an immunized organism.

The other immunity, of which the type is seen in the typhoid fever and cholera serums, is an anti-bacterial immunity with opposite properties to the antitoxic serum: the animal immunized with the virulent cultures destroys very rapidly the specific microbic organisms which are introduced after the immunization. On the contrary, the animals remains sensitive to the toxins which, in large doses, cause death,

In tuberculosis it is necessary to determine which kind of immunity is proper and best. Dr. Koch has determined in acute miliary tuberculosis of men, as well as in experimental tuberculosis, that the bacilli, which are present in enormous quantities in the organism, suddenly entirely disappear at various intervals. For a variable length of time no bacilli can be detected. He has explained this disappearance of the tubercle bacilli during the evolution of miliary tuberculosis by supposing a natural immunizing process.

This fact, which proves the existence of a tubercular immunity, brings out at the same time one of the essential conditions. The immunity manifests itself when the organization is most thoroughly saturated with bacilli; when all the organs and tissues are filled with bacilli and their products. It seems that immunity only begins after the tissues have absorbed and digested innumerable bacilli.

If one wishes to realize experimental immunity, that is, if one wishes to immunize against tuberculosis, it is necessary to find a process which permits of an introduction in the

organism of a considerable number of bacilli which can be easily absorbed and digested by the tissues.

The researches made in this direction have encountered many difficulties. All experiments made with living bacilli are with cultures treated with chloroform, heat, mineral acids, have given negative results until Dr. Koch conceived the idea of treating the cultures with glycerine. This is indeed the original tuberculin of Dr. Koch.

The facts found in connection with the original tuberculin, clinically as well as in experiments on animals, demonstrated that this tuberculin only immunized against the toxins, that is to say, it conferred an immunity against the substances formed by the tubercle bacilli. It did not fortify the organism against the continuous growth of the bacilli. Now as the two immunities are necessary at the same time (the antitoxic immunity, as in tetanus, and the anti-bacterial immunity, as in typhoid fever and cholera), it remained to discover a second process capable to immunize against the bacilli themselves.

Always guided by the clinical facts of acute miliary tuberculosis, Dr. Koch believed that this second substance (the antibacterial part) is present, along with the first in the ordinary tubercle cultures. Then it only remained to find a process which permitted a common isolation of these two immunizing factors. The new tuberculin which Dr. Koch has finally obtained after ten years of research, fulfills his double indication, that is to say, it confers an antibacterial immunity and, at the same time, immunizes against the toxins.

The process employed by Dr. Koch which permits a realization of the essential conditions of immunization (the ability of the organism to absorb and destroy a large number of bacilli) is very simple, purely mechanical. It consists in a trituration of dried tubercle cultures in a mortar and a separation, by centrifiguration, of an aqueous suspension of the same.

The following are the reasons which induced Dr. Koch to have recourse to mechanical processes:

In the course of his researches to find a method to render bacilli soluble and consequently more assimilable, he formed an opinion that that which opposed this transformation is a substance intimately incorporated in the bacilli and which is composed of two fatty acids. It is to disengage this substance that Dr. Koch had recourse to trituration.

If a desiccated culture of tubercle bacilli is ground in a mortar most of the organisms will be disintegrated and pulverized. Only a few will remain intact. In order to entirely separate the whole, unpulverized bacilli from the powder the mass is mixed with sterilized water and placed in a centrifugal precipitator revolving at the rate of 4000 times per minute. The mixture will be divided into two layers; the upper, supernatent layer being lightly opalescent, but perfectly transparent; and a viscid precipitate will be found clinging to the bottom of the tube. The sediment is again desiccated, triturated and precipitated in the centrifuge. The process is repeated many times until all the bacilli are pulverized and no more sediment forms.

Chemical, microscopical and experimental examinations of the liquids after each precipitation show that the transparent liquid obtained from the first centrifugation is entirely different from the liquids yielded by the final triturations and precipitations. The first liquid does not seem to differ much from the original tuberculin. The liquid obtained from the last centrifugations has all the properties of natural immunization. It is the liquid resulting from the last triturations that constitutes the new tuberculin.

In order to obtain an active tuberculin it is necessary to employ cultures which are as young as possible and as virulent as possible. They must be desiccated in a vacuum and kept, as far as possible, from the light during the processes of sedimentation. The addition of even a minute amount of any antiseptic alters the immunizing properties of the new tuberculin. Hence, absolute cleanliness must be manifested throughout all the manipulations. The last liquid separated by the centrifugal sediments is preserved in glycerine and is ready for use.

Researches upon animals has led Dr. Koch to believe that his new tuberculin possesses both immunizing and curative properties if the treatment is not commenced too late. Contrary to the old tuberculin, the new does not give any general or local reaction in mcderate doses. The new is administered as is the old subcutaneously.

In order to immunize a guinea pig it is necessary to use a massive dose at the beginning, which is absorbed without provoking any general symptoms. The guinea pigs become progressively and completely immunized, supporting without infection repeated injections of virulent tubercle cultures. The points of inoculation quickly disappear without leaving any traces; the adjacent lymphatic glands do not infiltrate, as ordinarily, nor do they undergo caseous degeneration. If the animal is subsequently killed no tubercle bacilli will be found.

If the injections of the virulent cultures are made before immunity is thoroughly established, one will observe a simple caseous degeneration of the lymphatic glands in the immediate neighborhood, without any symptoms of a general infection. The partial immunity will limit the infection to a small region about the site of injection of the virulent cultures.

The animals which are already tubercular, the use of the new tuberculin is to be begun with small doses; the doses are rapidly augmented in subsequent injections. If the treatis begun at a good hour the gainea pig will recover in from five days to three weeks.

The initial dose of Dr. Koch's new preparation is $\frac{1}{500}$ of a milligramme. The commercial preparation contains 10 milligrammes of tuberculin in each cubic centimeter; it is necessary, then, to dilute the tuberculin with proper quanti-

ties of sterile physiological salt solution.

The dose of \(\frac{1}{5000}\) milligramme does not as a rule produce any febrile reaction; and if a reaction takes place the size of the dose must be diminished. In this character the new tuberculin is directly opposite from the old. In the original the reaction was the sign of the proper action of the serum. The injections of the new serum are given every other day. The dose is augmented so slowly that the febrile reaction will never exceed one-half of one degree (C.). If the reactive temperature goes higher the injections must be reduced. By this minute increase in the size of the dose 20 milligrammes may finally be borne without a reaction. Often the curative effect will be obtained when the size of the dose reaches 0.5 to 0.10 milligramme.

The treatment of tuberculosis with Prof. Koch's new tuberculin will only benefit when it is begun at an early and timely hour. When the symptoms of secondary infection are present the tuberculin is found to be impotent, and the streptococci will continue their work of destruction. To recognize this secondary pyogenic infection the temperature must be studied. When the fever rises above 38° (C) favorable

results from the use of the remedy are exceptions.

Dr. Koch has used the tuberculin in a large number of cases of tuberculosis. The treatment brought about a certain amelioration in all cases, and in some a cure resulted. In cases of lupus, as well as in tuberculosis, the tuberculin did not produce any local reaction. In pulmonary tuberculosis a great increase of moist râles was generally noticed, while the expectoration, however, became less and less. The bacilli progressively disappeared from the sputum. Very soon after beginning the treatment the weight of the patients increased, the fever fell, the difference between the morning and the evening temperature became less and less, finally remaining normal during the twenty-four hours.

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.

ON MOTOR-INSUFFICIENCE OF THE STOMACH.

(Berl. klin. Woch., No. 11, 1897. International Medical Magazine.) By Rosenheim.

The motor power of the stomach is often the most important point to determine, and this is by no means always dependent upon the capacity of the organ. Splashing under the umbilicus five hours after ingestion of fluid, visible peristaltic and antiperistaltic waves and vomiting of long retained food are aids in diagnosis, but the latter is only assured by the discovery that the stomach is not empty seven hours after a test dinner or three hours after a test breakfast, or even more positively after a night's fast. The motor weakness may occur suddenly in neurasthenic individuals and after errors in diet usually disappears soon with proper handling. But a sudden onset is apt to occur after injury, even when this does not directly affect the stomach, and is then due to a paralytic condition of the viscus which may become permanent and resist treatment strongly. The gastric crises of tabes may cause motor weakness by overstrain in vomiting, and the condition is frequently present in connection with the epigastric herniæ of which Witzel, Linden, Bohland, and The prognosis is usually, but not always others have written. dependent upon the grade of the insufficience. In patients of nervous dispositions, especially, one often finds mild grade which is very persistent, and a prognosis can never be except after watching the results of treatment for a time. should be (1) dietetic—a dry diet when the stomach cannot empty itself of moderate quantities of liquids, and when the patient cannot rest after meals. When these two conditions can be fulfilled fluid may be allowed in small quantities fre-(2) Local—contrary to Boas he considers local treatment always indicated—in severe forms to remove food remnants and prevent fermentation, in less severe cases for its tonic effect, and one should always use the douche as recommended by the author, fluids o' low temperature (22°- 25° C.) and containing one of the numerous stomachics. Massage, electricity and particularly hydrotherapy are of use for their constitutional effects. When this treatment has no good results gastroenterostomy is in place. He warns strongly against the milder procedure of only breaking up adhesions, as such cases usually relapse and are often worse subsequently.

THE TREATMENT OF MIGRAINE.

In a paper read before the New York Neurological Society, Dr. C. E. Herter (*Journal of Nerv. and Ment. Dis.*, New York, January, 1897, p. 112) stated that he regards migraine as a toxemic condition, the toxines (probably albumoses) being absorbed from the gastro-intestinal canal. In seven patients he had examined the contents of the stomach during the paroxysm, and in these there was evidence of complete arrest of gastric digestion.

He therefore recommends, as an initial step in its treatment, the washing out of the stomach with water at a temperature of not less than 105 deg. F. The sooner that this is done after the beginning of the attack the better are the results. The patient should therefore be taught to do it for himself. Herter claims that this relieves the pain and occarionally, whereas the attack.

sionally aborts the attack.

The lavage should be employed in every case whether food be present in the stomach or not, but the results are better in the former case.

After the washing out he gives a rapidly acting aperient, such as a teaspoonful or dessert-spoonful of Carlsbad salts. The action of this should be aided by a soap and water enema.

Should the headache not be removed by these means, or should it return, it is much more easily treated after these initial steps.

He does not recommend antipyrin, but speaks in favor of phenacetin (gr. x.); of antifebrin (gr. v.); and especially of ammonol. Black coffee without sugar, or citrate of caffeine, he had also found efficacious. Where the face was much flushed ergot sometimes did good, provided that it could be retained by the stomach.

Rest and quiet are of great importance. In the intervals between the attacks milk should constitute the proteid food of at least one meal a day, and red meat should not be allowed more than once a day. Many sufferers from migraine cannot tolerate fruits.

A change from a sedentary to an out-door life is of benefit to many, and bicycle or horseback riding are the best forms of exercise.

There are some difficulties in the way of accepting these views, the most formidable of these being, perhaps, the unilateral character of the headache, which is contrary to what is usually found in toxic conditions. The strong association existing between epilepsy and hemicrania should also be borne in mind, with the undoubtedly hereditary character of these diseases. Should it be decided to give this method of treatment a trial (and Dr. Herter's very brilliant results certainly justify this), it would be well to approach the subject of washing out the stomach during an interval between the attacks, and not to startle a nervous patient during a paroxysm by suddenly suggesting what, to the lay mind, might appear to be a somewhat formidable and highly unpleasant operation."—Treatment.

DIABETES A DISEASE OF HIGH CIVILIZATION.

Thoughtful men long ago reached the conclusion that the conditions of life afforded by what is termed "high civilization" are not conducive to health, but, on the contrary, tend to physical deterioration. The class statistics of death from diabetes mellitus show this very clearly; for example, according to Saundby, the rate of mortality from diabetes has risen, in Paris, within the last ten years, from an average of eight in each 100,000 population to an average of thirteen; while in Copenhagen it has risen from five to eight; and in England and Wales it has increased in fourteen years seventy per cent., after allowing for the increased population.

Bertillion, a leading physician of Paris, has shown that, while this is true of all classes of persons, the increase is much more pronounced among the wealthy classes than among the poor, the average in the poorer parts of the city being only seven to nine in 100,000, while in the wealthy quarters

the average is sixteen to twenty.

Recent investigations by Marie and others show that the old idea that the liver is usually healthy in diabetes is an error, and that, on the contrary, it is generally the seat of interstitial hepatitis. Accumulating facts point more and more directly to the idea that diabetes is, like most other chronic disorders, the result of vicious habits of life, and probably chiefly dependent upon errors in diet. The liver is a long-suffering organ, and seldom undergoes derangement of any sort except from abuses heaped upon it through dietetic errors, its relations with the digestive tract being such that it is compelled to perform an immense amount of unnecessary labor as the result of any disturbance of digestion which impairs the integrity of the digestive process.

The cheapness of sugar and its various products, and the consequent increase of the use of sweets of various sorts, including confections, jellies, syrups, etc., must be held largely accountable for the enormous increase in frequency of this disorder within the last two decades.

Especially to be deprecated is the custom of adding syrups sugar, and other sweets to farinaceous articles of foods, such as oatmeal, breakfast cakes, etc. The absurdity of such a practise is apparent when one recalls the fact that farinaceous foods are fully one-half starch, and that this starch is all converted into sugar in the process of digestion; hence to add syrup or sugar to oatmeal is simply adding sugar to sugar, or sweetening syrup with honey. It should be remembered also that cane-sugar is not an alimentary principle which is naturally adapted to the human digestive apparatus.

Considered from a zoological stand-point, man is unquestionably dietetically related to the gorilla, the chimpanzee, and the orang-outang, his nearest relatives in the animal kingdom. These animals subsist, when in their natural state, exclusively upon fruits and nuts, the chief saccharine element of which is levulose, a sugar which is much sweeter than cane sugar, and which is closely allied to, if not identical with, the final

product of starch digestion in the alimentary canal.

Starch, when cooked, begins to undergo digestion as soon as it is received into the mouth. The conversion of this element continues for half to three quarters of an hour after the food enters the stomach, and may extend so far as to convert almost the entire amount of starch taken, when conditions are favorable. The writer has found as high as fourteen per cent. of sugar after a test meal consisting of water and one and one-half ounces of dried bread which contained no sugar. Cane-sugar is not acted upon by the saliva, and undergoes no change until the intestines are reached, when, coming in contact with the intestinal fluid, it is transformed into a sugar which is capable of assimilation. Cane-sugar is, however, capable of fermentation while remaining in the stomach, on account of the presence of microbes, which first transform it into a more highly hydrated form of sugar than when converted into alcohol, and later, into acetic and other fatty acids.

It is thus apparent that cane-sugar, while not itself readily digested, also interferes with the digestion of other foods. When taken in large quantities, it must impose an enormous amount of extra labor upon the liver by leading to the absorption of large quantities of imperfectly converted starch and an excess of saccharine material. In addition to this, the products of fermentation resulting from the presence of sugar must exercise a most damaging influence upon the

liver, and may be the cause of the interstitial hepatitis which commonly accompanies diabetes. Loeb has recently expressed the opinion that in many cases sugar is present in the urine in small quantities for many years before its discovery, the quantity of urine finally increasing to such an extent as to lead the patient to consult a physician.

In the writer's opinion, cane-sugar is an unwholesome article of food, and should be discarded from our tables. If used at all, it should be only in moderate quantities, as a means of rendering palatable excessively acid fruits. Its use, in such cases even, is decidedly doubtful, since the acidity of sour fruits may be equally well neutralized by the addition of sweet fruits. It should be remembered also that sugar, from a chemical standpoint, is an acid, and hence, when added to sour fruit, does not in the slightest degree neutralize or antidote the free acids present, but only hides them, or prevents their recognition by the nerves of taste.

The love for sweets is doubtless a natural instinct. Sweet foods are, as a rule, wholesome, and the taste for them may be safely indulged without stint; but this rule applies only to those possessed of the sweet flavors found in nature. If a natural sugar, like that contained in Trommer's Malt, were substituted for the cane-sugar of commerce, a great gain would be made so far as the digestion is concerned, as this is a perfectly natural sugar, produced by the diastetic digestion of starch, and is precisely the same as that resulting from

the action of saliva upon starch. - Modern Medicine.

A CONTRIBUTION TO THE PHYSIOLOGY OF SLEEP, BASED UPON PLETHYSMO-GRAPHIC EXPERIMENTS.

W. H. Howell contributes a lengthy article on this subject in the May, 1897, number of The Journal of Experimental Medicine. The object of the numerous experiments was to determine the variation in volume of the arm during the entire period of sleep. The experiments were made upon himself. The plethysmograph is described in detail and the method of using it, and plates of two of the successful experiments are given. The curves began to fall from the moment the sleeper closed his eyes, which meant that the arm in the water plethysmograph increased in volume, and continues to do so for from an hour to one and a half hours after sleep appears. It remains the same for an hour or two, when the curves begin to rise slowly at first, more rapidly just before awaking, after which the arm has returned to the volume which existed previous to going to sleep, some 4 to 41/2 hours previously. Secondary variations in the curve occurred at more or less regular intervals of about an hour, other

oscillations occurred irregularly, due to noises or other external stimuli and movements of the sleeper. Mosso's experiments are referred to by which it was conclusively proved that the limbs enlarged during sleep, due to vascular dilatation; he showed also that the volume of the brain diminished during sleep, and that any unusual mental activity increased the brain volume and lessened that of the limbs, and other observers have found a definite relationship existing between the circulation in the brain and general arterial pressure. There being no vaso-motor fibres in the brain vessels, the circulation there is regulated passively by variations in arterial pressure on the remainder of the body. The skin is flushed, and of a higher temperature during sleep, and there is a general fall of blood pressure.

Assuming that the volume of the brain circulation stands in reciprocal relationship to the volume of the arm, the changes in the amount of blood circulating through the brain during sleep may be stated as follows: At the commencment of the period preparatory to sleep the blood flow through the brain begins to diminish in quantity, owing to the fall in arterial pressure, and for a period of an hour or more after sleep has appeared the blood flow grows less and less, following the continued diminution in arterial pressure. After reaching its minimum, the volume of the brain circulation remains practically constant, with the exception of the temporary variations which have been referred to previously, for one or two hours, or possibly longer, if the period of sleep lasts for a greater time than was obtained in these experi-The blood flow through the brain begins then to increase gradually, following the rise in blood pressure produced by the slow constriction of the skin vessels, and this increase becomes much more rapid for the short period of one-half to three quarters of an hour preceding spontaneous awaking. At the time of awaking, therefore, the volume of the blood flowing through the brain is approximately the same as at the time sleep appeared.

It is considered probable that the internal organs do not share in this dilatation in the skin, but that the blood diminishes in them as it does in the brain. The rhythmic oscillations in the curve referred to are supposed to be due to a rhythmic increase and relaxation of tone in that part of the vaso constrictor centre controlling the vessels of the skin changes which are characteristic of the vaso-motor centre.

In regard to the cause of sleep the writer does not yet endorse the recent views of Cajal that the neuroglia cells expand between the communicating processes of the cell units acting as insulators or Duval's theory that conductivity is broken by the withdrawal of the cell processes from each other by Amæbiform contraction; conductivity being reestablished upon awaking, but rather supports the view that it is, owing primarily to a fatigue of the elements of the central nervous system. Obersteiner and Preyer suppose the production of an acid which accumulating produces fatigue probably lactic. Pflüger supposes the exhaustion of molecular oxygen as the cause. Others have supposed the diminished cerebral circulation to be the cause of sleep rather than the result.

The explanation which the author has been led to give to the plethysmographic curves, described in this paper, has suggested to him a theory of sleep that, in some of its features at least, is new. This theory may be stated briefly as follows: The immediate cause of normal sleep lies in a vascular dilatation (of the skin) that causes a fall of blood pressure in the arteries at the base of the brain, and thereby produces an anæmic condition in the cortex cerebri. condition of anæmia, in connection with the withdrawal of external stimuli, causes a depression of the psychical processes in the brain cells below the threshold of consciousness. The fall of blood pressure is due, in the first place, to a relaxation of tone in that portion of the vaso-motor centre controlling the skin vessels. The immediate cause of normal awaking, on the contrary, is found in the augmented flow of blood to the brain that follows upon the gradual constriction of the skin vessels as the vaso-motor centre recovers its tone. The periodicity of sleep is, therefore, directly connected with a rhythmic loss and resumption of tone in the vaso-motor centre. Throughout the waking period the vaso-motor centre is under continual stimulation, and is, therefore, in continual activity. Sensory impulses, especially from the skin and the cutaneous sense organs, are at all times falling into the central nervous system in greater or less quantities, and through a reflex pressor action on the vaso-motor centre, these sensory impulses keep up a constant activity of the centre, particularly of that part controlling the skin vessels, as is indicated by the striking effect of such stimuli upon the volume of a limb when measured plethsmographically. Mental activity in all its forms is accompanied by a similar pressor effect upon the vaso-motor centre, which is likewise known to effect the skin circulation. During the waking hours, therefore, the vasomotor centre is in uninterrupted activity, and the result must be the production of a condition of fatigue in this centre proportionate to the amount of stimulation. If the fatigue is sufficiently pronounced, the centre will relax and sleep ensue in spite of even strong sensory or mental stimuli. fatigue is less marked, as is normally the case at the end of a waking period, adequate relaxation takes place only after the

withdrawal of sensory and mental stimuli, and our voluntary preparations for sleep consist essentially in devices to minimize these stimuli. That the vaso-motor centre is susceptible to fatigue, the author has shown to his own satistion by experiments consisting in the continuous stimulation of sensory nerves (sciatic), in curarized and narcotized animals. The great rise of blood pressure that results from such stimulation soon passes off more or less completely, and that this result is owing to fatigue of the centre rather than to fatigue of the muscles in the walls of the blood-vessels is indicated by the fact that the blood-vessels in the ear of a rabbit may be kept in a condition of strong contraction for a long period (over an hour at least) by constant tetanic stimulation of the peripheral end of the cervical sympathetic nerve.

In addition to the effect of the cerebral anæmia, an accessory favoring condition to the production of sleep may be found in a certain degree of fatigue of the parts of the brain mediating psychical processes. Portions of the sensory and the association areas of the cortex, using Flechsig's nomenclature, must be active during the greater part of the waking period, and probably, therefore, lose their irritability to a greater or less extent. Upon the withdrawal of the normal blood supply, their irritability will tend to fall more quickly below the threshold of consciousness in consequence of this fatigue. We might, therefore, say that three factors combine to produce normal sleep: I. A diminution of irritability, caused by fatigue, of large portions of the cortical area. Voluntary withdrawal of sensory and mental stimuli involved in the preparations for sleep. 3. A diminished blood supply to the brain, owing to a relaxation of tone in the vaso-motor centre and the fall of general arterial pressure thereby produced. The last factor is the immediate cause of sleep, and explains its comparatively sudden and nearly simultaneous occurrence over the entire cortex. The relative importance of these three factors will vary, naturally, with attending circumstances. It would seem that the third condition must always precede sleep, and that, under normal relations, it is the determining element in the production of the unconsciousness of sleep. A combination of the 2nd and 3rd factors is probably adequate to cause sleep without preceding fatigue of the central nervous system. This probability is indicated by many facts in ordinary experience, such, for example, as the sleepiness felt when quietly resting after a heavy meal—the fall of blood pressure in this case following upon a dilatation in the splanchnic area. Perhaps a better instance is the often-quoted case of Strümpell's. In this case a boy whose only avenues of sensory communication with the outside world were the right eye and the left ear could be sent to sleep

at any time by bandaging the eye and stopping up the ear. On the contrary, the normal condition of sleepiness that makes itself distinctly felt to the individual and that follows upon healthy active exertion of body and mind is most probably connected with a genuine fatigue of the vaso-motor centre, particularly, I believe, of the part controlling the skin vessels. When in this condition, only strong sensory or mental stimuli are adequate to keep the centre in tone and prevent a fall of blood pressure, and, if the fatigue is excessive, even such

means fail and sleep ensues quite against the will.

The probability of a relationship between the supply of blood to the brain and the condition of sleep is indicated also by the phenomena preceding normal awaking. some time before awaking the arm undergoes a gradual constriction, and in the half-hour or so just preceding awaking this constriction becomes comparatively rapid, bringing the arm at the time of awaking nearly or completely to its normal volume. Upon the explanation of the plethysmographic curve that has been adopted in this paper, these changes would mean that after a certain period of relaxation the vasomotor centre gradually regains its tone, resumption being more rapid shortly before awaking. The result of this process is to force a greater and greater supply of blood through the rested brain until finally the threshold of consciousness is overstepped, and spontaneous awaking occurs. It is probable that under ordinary conditions awaking is almost always accelerated by the effect of some accidental external or internal stimulus. At the same time it must be admitted that if such stimuli were removed spontaneous wakening would eventually follow the gradually increasing vascular tone. is an interesting fact that, in the plethsmographic curves taken by the author, there was always a marked constriction of the arm at the moment of final awaking. As the subject awoke, he could see the pen rising rapidly upon the kymograph. The effect in this case seemed to be analogous to that caused by mental activity. The sudden increase in mental processes coincident with the access of full consciousness acted as a stimulus to the vaso-motor centre, and the constriction produced was sudden and marked. Subsequently the pen again sank a certain distance, remaining finally at a level approximately the same as that shown at the time of going to sleep.

The normal periodicity of sleep, which is its most characteristic phenomena and the one most difficult of explanation upon previous theories, is to be referred finally to the characteristic of the vaso-motor centre. The latter part of the paper refers to the opinions of others who have arrived at somewhat similar conclusions, more especially that of Hill, who advocates the theory that sleep depends on an anaemia of

the brain, brought about by relaxation in tone of the splanchnic area. Some objections to his theory are then mentioned. Mere increase of blood does not alone excite functional activity in the skeletal muscles or glands, although in the kidney the secretions are much influenced by the blood supply.

The brain is more complex, but the evidence shows that the irritability of its cells is directly influenced by the amount of blood supply, but the relation of the blood supply to

functional activity is still an unsolved problem.

A NEW TEST FOR SEMINAL FLUID.

The recognition of spermatozoa in medico-legal researches is often a matter of considerable difficulty, especially if the material under examination is of old date. Great interest consequently attaches to the test for semen devised by Florence, of Lyons, which has recently been reproduced in the Boston Medical and Surgical Journal, in conjunction with a confirmatory test due to the ingenuity of Dr. W. F. Whit-Florence's test comprises the use of a reagent often made use of in testing alkaloids, and is known as the tri-iodide of potassium. The test solution contains 1.65 parts of iodide of potassium, 2.54 parts of pure iodine, 30 parts of distilled A drop of this solution placed side by side on a slide with a drop of fluid obtained by moistening the seminal stain results in the formation of a number of characteristic brownishred, pointed crystals, rhomboidal in shape, and presenting a certain resemblance to haemin crystals. Dr. Wyatt Johnson, who has carried out some investigations with this test, reports that he has been enabled to obtain the reaction with stains upwards of twelve months old, and not only is the reaction not obtained with other organic secretions, but even the semen of animals gives a much less marked reaction. In the same journal Dr. W. F. Whitney confirms the value of the test, which, however, gives a precipitate with alkaloids, and he suggests another test, which may be used in conjunction with the foregoing. drop of fluid obtained from the moistened stain is evaporated on a slide and fixed by heat in the usual way. The resulting film is then stained with eosin and methyl green, when it will be seen that the head of the spermatozoon is stained at the base of a deep green colour, while the anterior part and the tail stain This staining reaction is well marked only in human semen, so that a possible source of error is obviated. - Medical Press, June 2, 1897.

SUSCEPTIBILITY OF INFANTS TO HOSPITALISM

Dr. Henry Dwight Chapin has a paper in the Archives of Pediatrics on the Babies' wards of the New York Postgrad-

uate Hospital, in which the above subject is referred to asfollows:

As there appears to be a tendency toward a multiplication of hospitals for infants, it seems proper to consider the effects that such temporary housing and treatment are liableto have upon sick babies. In making a few observations upon this subject, the writer speaks only for himself. An experience of twelve years in studying the subject in the hospital. summer as well as winter, may serve to justify any conclu-During this time, the observance of certain very constant phenomena lead me to believe that infants should be placed in an hospital only under exceptional circumstances. The principal reason should be an entire inability to secure proper care and attendance at home. Entrance to an hospital should be limited to acute cases of illness, and discharge should take place immediately upon recovery, even if the latter is only partial. A speedy or satisfactory convalescence isimpossible for an infant in an hospital. The earlier the age the greater is the susceptibility to hospitalism, and the quicker it ensues. One of the first conditions to be noted is a progresssive loss of weight that is not dependent upon the original disease, as it often takes place after recovery when the infant is not sent out soon enough. This ensuing atrophy bears an inverse ratio to the age, and is especially marked under six months. Older infants are less susceptible, but if kept long enough they will surely show stationary and then losing weight. This often takes place while the infant is apparently digesting its food, which may be the best that can be artificially produced. Beginning atrophy, not depending upon a lesion, should be an indication for immediate discharge from the hospital. If it gets beyond a certain point, no change of environment or food will save the infant. Accompanying this condition, there is marked hydramia, dryness of the skin, and wearing off of the hair from the occiput. As a general rule, young infants should not be kept in hospital longer than a fortnight, unless for exceptional reasons. Another condition liable to develop in hospital infants is latent pueumonia usually of the hypostatic variety. It is very insidious, usually accompanied by little or no rise in temperature, and is often detected for the first time at the autopsy. I have very rarely made a post-mortem upon an infant dying from any cause in hospital that has not shown this lesion.

Female children that are kept too long in hospital frequently get up a more or less severe form of vaginitis. This does not necessarily point to any want of cleanliness or attention, but I regard it frequently as due to lack of tone and vulnerability of all the mucous membranes that accompany hospitalism. I have recently seen this exemplified at the Willard

Parker Hospital, In the diphtheria wards there are no cases of vaginitis, but in the scarlatina wards where the children are necessarily kept much longer, there are many cases. The same good care and cleanliness are observed in both divisions of the hospital, and the affection ensues from the necessary detention in the hospital. Children suffering from any form of tuberculosis occasionally get up a rather virulent form of vaginitis in hospital.

Outbreaks of contagious diseases are constant dangers in hospitals for infants and children, and can only be guarded against by the greatest care. Diphtheria, measles and pertussis are, from the nature of these diseases, most liable to creep in. Diphtheria sometimes appears to originate without hetero-infection, doubtless from Klebs-Leoffler bacilli that have long been latent in the throat. I have seen cases thus develop that have been for weeks in the hospital, without being visited by friends or in any possible contact with a case of the disease. This is especially liable to happen is scrofulous infants with enlarged glands, nasal catarrh and adenoids. Visitors, however, are often responsible for the bringing of contagion, and all possible safeguards should be thrown around this source of danger. It is impossible to entirely exclude parents, but all others, especially children, should be refused admittance for fear of contagion. In view of the risks to which infants are subjected in collecting masses of them together, it seems proper that extreme care should be exercised when considering the subject of an hospital. Those who are responsible for the latter are not justified in simply supplying average care and condition. The hygienic surrounding must be of the best, the nursing of a very high grade, and a most scrupulous and painstaking oversight exercised. One good nurse should be supplied to not more than four or five sick infants, and in some cases one nurse may by required for only two patients. ally, the infants should be particularly watched for the first signs of hospitalism, and promptly discharged before the malady has time to gain any hold on them. Many years ago Dr. A. Jacobi called attention to the susceptibility of infants to hospitalism, and his warning does not seem to have attracted the attention that it warranted.

DIGITALIS IN PNEUMONIA AND INFLUENZA.

In the Revue de Medecine for March 10, New York Medical Journal, M. Gingeot and M. Deguy publish a detailed account of twelve cases in which they employed digitalis with excellent results, especially in influenza. From a clinicial point of view the authors take into account only the differ-

ent forms of the infection of influenza, which are so variable that the diagnosis is often extremely difficult. Influenza may simulate tuberculoses during the cavitary period, or dilatation of the bronchi; it may simulate typhoid fever and miliary tuberculosis. It is extremely polymorphous in its manifestations, a disease of surprises, and it is necessary to become acquainted anew with its pathology and its therapeutics in each instance.

The authors think that digitalis is useful from two points of view: First, as an element of diagnosis in acute granular tuberculosis or in typhoid fever, for in these two affections they have employed digitalin without ever obtaining defer-

vescence; second, as a curative agent.

The authors give an account of their mode of treatment and the advantages derived therefrom. In pneumonia no deaths occurred in 10 cases, and in 2 cases of double pneumonia the favorable results were striking. On the day after the administration of the digitalin the patient experienced a sensation of well-being which was quite peculiar; if delirium existed it ceased, and the albuminuria diminished and finally disappeared. The antithermic action was remarkable; ventricular systole occurred with more energy, and the heart's action became slower; the arterial tension increased, and the pulse became stronger.

According to M. Huchard, diuresis is established promptly, and, during four or five days, it contributes to the elimination of all the toxins produced by the infectious disease. This fact was ascertained by the authors in some cases, for they were able to verify it in parallel charts of the urine and the temperature; when one fell, the other rose. This, how-

ever, was not always constant.

Congestion seems to disappear more rapidly and theexudation is more rapidly absorbed. On the whole, digitalinaccelerates the normal evolution of pneumonia, and is the bestadjuvant to spontaneous recovery, for it must be borne in mind that this medication is not antipneumonic, but is a compensatory one, which makes use of the healthy organs in order to act on the diseased organs. It is not the pneumonia that is dangerous; it is the exhaustion of the organism, and it is this which is combated or prevented by the digitalin treatment. According to Huchard, although the disease is in the lungs, the danger is to the heart and nervous system, and with this treatment the disease follows its normal envolution, but the organism is strengthened. Concerning influenza, all that has been said of pneumonia is applicable in every respect regarding the broncho pulmonary tendency of this. affection. These forms, however, are not dwelt upon by the authors; they call attention simply to the success obtained.

with digitalin in gastro-intestinal influenza simulating primary gastric derangement, typhoid fever, or acute tuberculosis.

The drug has particularly favorable action when the pulse is weak, small and rapid. Brachycardia, which is sometimes observed during the course of influenza, does not seem to be a contraindication to the employment of digitalin, although the effects are less certain. Several causes, besides, seem to attenuate or to retard the action of the drug; these are obstinate constipation or alternating attacks of fetid diarrhoea. It is in this case necessary to combat these two symptoms before giving digitalin.

Under the influence of this drug the urine increases, with an abundant precipitate of urates; the temperature falls and becomes regular; the pulse becomes normal, and the digestive functions return to their normal condition owing to the influence alone of the restoration of the cardio-vascular system. Delirium, sweating, and the condition of stupor cease; the general condition is wonderfully ameliorated, and

recovery takes place in a short time.

Digitalis arrests epistaxis, but it does not prevent a return of the influenza when the patient is no longer under the influence of the drug. On the whole, it seems to attain its maximum effect in the broncho pulmonary form of influenza, although it is also useful in the gastro-intestinal form, and in the grave or complicated forms in which the cardiovascular system is involved and weakened.

SURGERY.

IN CHARGE OF

FRANK R. ENGLAND, M.D.,

Prof. of Clinical Surgery University of Bishop's College; Surgeon Western Hospital,

GEORGE FISK, M.D.,

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

RADIOGRAPHIC TEST AFTER OSTEOTOMY.

(Journal American Medical Association, April 24.)

At the New York Post-graduate Hospital, Dr. Samuel Lloyd recently gave an interesting demonstration of the surgical utility of the ray work. One case was that of a young girl whose thigh bones were crossed, thus preventing her from the use of her limbs. She was taken into the hospital nine weeks ago, when the surgeon performed the operation of osteotomy. Both thigh bones were broken and placed in position for a normal reunion. The bones

were subject to a ten minutes' exposure of the ray, and by use of the fluoroscope, Dr. Lloyd was able to announce a perfect union of the bones, so that the girl would be able to walk. The successful application of the X rays to this part of the body was more difficult than to any other part, a representative of Mr. Edison explained, but the healing bones could be readily seen by placing the Crookes tube under the operating table and holding the fluoroscope over the thighs. Other experiments, equally successful, were made with fractured bones of the knee and elbow and with diseased bones of the hands.

CATGUT LIGATURES.

Stone (Journal American Medical Association, April

24th, '97), recommends catgut prepared as follows:-

Cut the gut (Nos. o and I) into pieces eighteen to twenty-four inches in length, loosely coil and place in water at ordinary temperature of room for twelve hours to "swell it." Then place it in a 5 per cent. solution of formaline for 24 to 36 hours and then place in a jar of absolute alcohol until needed. This gut may be boiled for ten minutes before use if desired but it is unnecessary. He states that in the skin the smaller size will become soft in ten days or two weeks, while in the cervix and vagina the material thus prepared will be found eminently satisfactory.

OBSERVATIONS UPON THE RENAL CIRCULATION.

By M. DESTOT (Lyons).

The venous and arterial circulation of the kidneys have been studied recently by M. Destot, and the results reported. Thin mercurial ointment was the injecting mass used, and after the vessels had been well distended, the resulting semimetallic lines were studied by means of radiographs. There are no anastomoses between the arterial channels, but the veins communicate freely.

It was found that the renal artery divides into an anterior and a posterior branch, supplying corresponding segments of the kidney separated by a plane midway between the dorsal and ventral faces. There appears to be no anastomosis between these two portions, and in the operation of nephrotomy, therefore, the line of incision should follow the convexity of the organ parallel with the liver and between the two viscular segments, thus avoiding any serious hemorrhage.

Sections were also made and studied of single lobes which had been injected. These sections could be made of considerable thickness, and so gave a much clearer idea of

the relation of the vessels than could be obtained from microphotographs. When the cut was at right angles to the long axis of the principal vessel the branches were seen to radiate from the main trunk. If parallel with the vessel, the vessels passed out at the sides very much like the arrangements of the branches in a fir-tree; the glomeruli are usually used by the shortest possible route. There is no arterial connection between the adjoining lobules and the arteries and the minute capillaries. With the veins the condition is quite different, the anastomoses are numerous, and through a single vein the entire organ can be injected.—Lyons Medical, 96, Nos. 49 & 50. Annals of Surgery, May, '96.

CAVERNOUS ANGIOMA OF THE NECK.

By Dr. PAUL KACZANCWSKY.

The author reports the case of a child who, when four months old, was first seen by a physician on account of a swelling on the left side of the neck, which had existed at the time of birth, but which had increased rapidly in size during the preceding two weeks. Examination showed the tumor to be composed of two distinct masses; the upper one was rounded, and the size of the closed fist lying on the left side of the neck above the clavicle and scapula; the other was quite angular, somewhat smaller in size, and extended from the axilla to the lower border of the pectoralis major over the pectoral muscles to the clavicle, at which place a narrow but deep depression separated it from the tumor mass above. Palpation showed that this lower tumor followed closely along the course of the subclavian vessels. The consistence of both tumors was so firm that fluctuation could scarcely be made The skin over the upper tumor was in a condition of extreme tension, and the subcutaneous veins were markedly distended. During expiration, and particularly during crying, both tumors were notably increased in size. Manual pressure caused no diminution in either mass. Exploratory puncture with hypodermic syringe showed that the tumor was filled with pure venous blood, and the hemorrhage from the small wound was checked with considerable difficulty.

After two weeks of observation it was plainly seen that the tumor was steadily increasing in size. The danger of spontaneous rupture of the sac was great, but the dangers of a removal by operation of one or both masses were evidently so great that such an attempt did not seem justifiable. Instead of such a proceeding, therefore, the plan of methodical pressure of the tumor was adopted, and was accomplished by means of a roller bandage of flannel and a padding of cotton. The result was surprisingly good; after two weeks the size

was noticeably decreased; after six weeks it had been reduced one-half, and after four months no trace of the tumor remained. When the child was one and one-half years old no trace remained of the lower tumor, and of the upper one only a series of loose folds of skin showed its former location. The child is now six years old, and even these folds have quite disappeared.

Whether the tumor first developed in embryonal tissue below in the axillary region and extended progressively beneath the clavicle, or whether numerous cysts developed simultaneously along the course of the subclavian vein, is still a question. A case has been reported by C. Beyer, in which the growth arose from the lymphatics; in the present instance it appears more likely that it took its origin from the subclavian vein.—Deutsche Zeitschrift fur Chirurgie, Bond XLIV, Heft 4, 1896. Annals of Surgery, May, 1897.

SYPHILIS TREATED EARLY AND ENERGET-ICALLY.

Manino reports (Bull. Med.; ref. in Charlotte Med. Jour.; American Medico-Surgical Bulletin, May 10, 1897) the highly successful results of eight years' experience of this treatment. Instead of waiting for the usual symptoms to appear, the initial chancre is excised, or thermo-cauterized, and calomel injected every fortnight for from ten to twelve months (10 ctg. to I gme. glycerine and I drop water). After this, the injections are made every twenty days for three or four months; then one in sixty days for two months more, when potassium iodide is administered for 2 months; then two months more of mercury injections—this time the sublimate. The patient then rests for two months, when the iodide is recommended for a while, followed by a protoiodide, which is kept up till the end of the second year. The initial chancre soon subsides, and no secondary or tertiary phenomena have appeared in any of the cases treated during eight years. The inconveniences of this treatment, the painful injections, the temporary loss of appetite and weight, are far more than compensated by the victory over the disease, which is arrested before it becomes constitutional.

SURGICAL AFFECTIONS OF THE KIDNEYS.

Drs. J. Wm. White and Alfred C. Wood (Annals of Surgery, Jan. 1897; American Medico-Surgical Bulletin, May 10, 1897) believe that, despite the number of operations upon the kidney recorded within the past fifteen years, there is still manifest an undue conservatism in dealing with renal surgical conditions. Chronic painful affections of the kidney

belong properly to the surgeon. Even nephralgia is most successfully relieved by surgical measures in many cases.

An obstacle to the more rapid advancement of renal surgery is the difficulty in arriving at a positive diagnosis.

The occurrence of abscess in connection with spinal caries sometimes gives rise to renal symptoms. The authors quote Mr. Jacobson as calling attention to the great difficulty which may arise in distinguishing between certain cases of spinal caries and renal calculus. Again, Ereclisen is cited as describing a case in which an abscess dependent upon caries of the vertebræ not only assumed the perinephritic form, but opened into the pelvis of the kidney, thus simulating chronic pyelitis. The diagnosis was made by observing molecular fragments of carious bone in the pus.

A subphrenic abscess or an appendicular abscess may, in some cases, become perirenal by extension, and the condition then simulates a renal affection. Hydronephrosis, pyonephrosis and tumors of the kidney may be confounded with

such diffuse suppuration.

The diagnosis of the common renal affection is to be made upon a careful study of the history, attention to all the symptoms, and frequently repeated examination of the urine.

Stone in the kidney, if smooth and embedded in the parenchyma, may give rise to no inconvenience whatever. Usually, however, the patient will have some of the following symptoms: Lumbar pain, fixed or radiating toward the genitalia or the upper portion of the thigh of the affected side; irritability of the bladder, gravel, hematuria, acid pyuria, and renal colic. Ransohoff, say the writers, lays particular stress on the presence of red blood-corpuscles at every examination of the urine.

Palpation is at best of but occasional value. Morris has called attention to the uncertainty of detecting calculi by direct palpation of the kidney. At the present time the use of the Rontgen ray might prove an invaluable aid in diagnosis. It cannot be doubted that most kidney stones cause more or less irritation, which in time would lead to permanent and

progressive organic change in the organ.

Some degree of fever is apt to accompany abscess of

kidney. This is especially true of the acute form.

The symptoms of hydronephrosis and pyonephrosis most commonly observed are a constant, dull pain in the loin corresponding with the affected kidney; this may last over a long period. Sooner or later a fullness or a distinct tumor can usually be felt. In pyonephrosis, the urine commonly contains pus; this, however, is also found in cystitis, prostatitis, urethritis, etc. It must be also borne in mind that in case of renal suppuration the urine is usually acid, while in

long-standing cystitis it is alkaline. Moreover, the microscope will detect the presence of elements characteristic of a

particular locality.

In speaking of movable kidneys, the writers give Tuffier's clinical classification, namely: (1) painful, (2) dyspeptic, (3) neurasthenic. Referring to the cause of movable kidney, they say it has not been determined, but it is probable that different factors are responsible in different cases. Among the causes mentioned are the loss of the fatty capsule, pregnancy, pendulous abdomens, enteroptosis, heredity, the presence of a mesonephron, etc.

The prognosis after operation for the above condition depends upon the stage of the disease and upon the integrity

of the opposite kidney.

The authors go on to consider anuria, and give various reports of different observers as to operation on the kidney, nephrectomy, nephrolithotomy, etc.

OBSTETRICS.

IN CHARGE OF

H. L. REDDY, M.D., L. R. C. P., London,

Professor of Obstetrics, University of Bishop's College; Physician Accoucheur Women's
Hospital; Physician to the Western Hospital.

MENSTRUATION IN AN INFANT.

MONTARIS of Mitylene (Indépendance Méd., 1896, No. 35) reports the case of an infant who was born on August 21st, 1892, and menstruated on February 21st, 1893. Her body was unusually developed, the hair of the head strong and long, the breasts large. The features were regular, and, as is not usual in such cases, the expression of the features was intelligent.

VOMITING OF PREGNANCY.

Parvin says that for years he has not failed to cure immediately and permanently every case of the vomiting of pregnancy by applying a sharp blister over the fourth and fifth dorsal vertebre.

THE ACTION OF ERGOT.

(1) When administered previous to the termination of pregnancy in the case of women in whom a tendency to post-partum hemorrhage is known to exist, it tends in a marked

manner to prevent the occurrence of hemorrhage. (2) When so administered in ordinary doses, it does not produce any injurious effect on either mother or child, and it seems to delay the beginning of labor in such cases. (3) It tends to make the involution of the uterus more perfect, and lessens the chance of the occurrence of subsequent uterine troubles, many of which depend for their cause on imperfect involution of that organ. (4) It will not bring on premature labor or induce abortion unless uterine action has previously been set going. (5) In cases of threatened abortion its administration frequently seems to act as a uterine tonic, and in some cases tends to avert the danger of a miscarriage, provided the ovum is not blighted. (6) If the ovum is blighted, and especially if it is detached, ergot usually hastens its expulsion.—Dr. Lombe Atthill, Brit. Med. Fourn.

ACETONE IN ECLAMPSIA.

The almost universally accepted theory of the causation of eclampsia is renal insufficiency. But the kidneys cannot be blamed in all cases; the other organs of the body, especially the liver, must be investigated. Strumpf found acetone in the urine of all eclamptic patients whose breath smelt of it; and the authors relate the details of a similar case, and claim that the presence of acetone is the index of the true condition present. Acetone (C3 H6O) results from katabolism of organized tissues, not of ingested proteids. The liver deals more rapidly with the nitrogenous products of metabolism than with the non-nitrogenous moiety; and the authors suggest that in pregnancy the increased work thrown on to the liver may result in hepatic inadequacy, and that there may be a "liver of pregnancy" just as there is a kidney of pregnancy. The products of metabolism in both fœtus and mother are carried to the maternal liver, where they normally undergo katabolic changes to urea and bile salts: but in cases of hepatic inadequacy these products accumulate and eclampsia results. The nephritis which co-exists with eclampsia is mainly secondary, and is analogous to the nephritis of scarlatina. The relation of acetone to metabolism is so important that the urine of pregnant women should be systematically examined for it.—Amer. Journ. Obstet.

GUAIACOL IN PUERPERAL ECLAMPSIA.

J. F. R. APPLEBY (Boston Med. and Surg Journ., March 18th, 1897) prefers guaiacol in the treatment of puerperal eclampsia. He has used it in two cases with "surprising and happy" results. Forty or fifty drops were poured upon the

abdomen and gently rubbed in. In a few minutes the pulse became soft, free diaphoresis set in, and the convulsions died away. In both instances, there was albuminuria and ædema, and in both the recovery was good. Guaiacol possesses the advantages of ease of application, certainty of action and speedy relief of urgent symptoms. Its physiological effect is to cause rapid and marked lessening of arterial blood pressure, lowering of temperature and free diaphoresis.

PURULENT OPHTHALMIA NEONATORUM.

CHARTRES (Arch. Clin. de Bordeaux, No. 12, December 12th, 1896) has made bacteriological examinations of the pus from 26 cases of ophthalmia neonatorum, and has found very numerous pathogenic microbes. In 36 per cent. of the patients there were gonococci alone; in other instances there were Loeffler's bacilli (12 per cent.), micrococci (12 per cent.), streptococci (8 per cent.), gonococci with streptococci (8 per cent.), and in yet other cases there were mixed germs. worst instances were those in which there were streptococci either alone or associated with gonococci or the bacilli of Loeffler. Such cases ended in loss of vision, or were complicated by a fatally terminating broncho-pneumonia. the gonococcus alone was found in the pus the prognosis was generally good, treatment resulting in cure. It is easy, therefore, to see that from the point of view of prognosis the bacteriological examination of the discharge at an early stage of the disease is of great importance. The treatment must be energetic from the first, and it ought to be mixed. author does not deal in this paper with the prevention of the disease, but he remarks parenthetically that, while Credé's method is good, care during labour is better still. When the disease is present the first step must be the thorough washing of the eye with a solution of permanganate of potash, so as to reveal the state of the cornea. Chartres then cauterises with nitrate of silver on two or three successive days with frequent eye washings with a solution of boracic acid in the intervals.

DISTURBANCE OF LACTATION.

ANGEL MONEY (Australasian Med. Gaz., January 20th) maintains that the custom of weaning newly-born children is too prevalent, and too few attempts are made to correct the milk when at fault. A thorough investigation of mother and milk should be made, and the quantity and quality of the latter determined, and the percentage of fat and proteid which are the only variable factors ascertained. Bad milk

contains toxic matters, albumoses, and leucomaines, albumen being plentiful but of the wrong kind, while the percentage of fat is defective; colostrum corpuscles are present and may be numerous. The most successful milk is that of mothers desirous and confident of ability to nurse. Exercise can diminish percentage of proteids, and a moderate amount of beef or mutton can increase percentage of fats; these facts are seldom acted upon. A poor milk may be enriched by improving the maternal dietary, giving more meat and more milk, diminishing exercise, shortening intervals of nursing, and diminishing amount of liquids imbibed. Rich milk may be diluted by lengthening the intervals of nursing, decreasing the amount of meat eaten, increasing exercise, augmenting fluid drunk, drinking rain or distilled water. Helidon or Vichy water midway between the nurslings is an excellent practice. Colostrum corpuscles present after the first fortnight signify defective formation of milk. It is unjustifiable to diminish the water in poor milk by purgation, which may stop milk flow or may even cause the milk to contain toxic substances. The breast pump is not sufficiently used to improve the function of lactation; it should replace the baby while attempts are being made to improve the milk. The more perfectly formed the milk is the more caseinogen and less albumen it contains; however great the percentage of caseinogen it never in the stomach forms dense clots as formed by cow's milk. It is a mistake to suppose that stout or porter improves milk. Another error is the belief that beeftea and chicken broth are good for nursing mothers. Excitement, fatigue and overfeeding should be avoided, also highly-spiced, rich or stimulating foods. The bowels should be regulated by proper dieting and massage or exercise rather than by laxatives, and it is highly desirable that there should be at night uninterrupted sleep for six hours for mother and child.

PREGNANCY LASTING ELEVEN MONTHS.

WIGODSKY (*Medicinsk. Obosrenie*, No. 2, 1896) observed protracted gestation in a 3-para, aged 28. The last period was on September 7th, the fœtal movements were first felt at the end of January, and labour occurred on August 13th. Pregnancy otherwise ran a natural course. Delivery was delayed by the great breadth of the shoulders, and the forceps was applied. The fœtus was a living anencephalus.

CAMPHOR AS AN ANTIGALACTOGOGUE.

HERGOTT (Rev. Méd. de l'Est, February 1st, 1897) being dissatisfied with the effect produced by the usual antigalactogogues, including antipyrin, has tried camphor, and finds

that 9½ grains a day divided into three doses, and given fo three days, nearly always produce a remarkable diminution of the secretion. He has used it in 30 cases, having been first led to try it by the good results obtained by Kiener in animals, especially milch cows.

PUERPERAL HERPES.

Dr. Lutand describes five cases of acute pyrexia occur ring between the second and fifth days after confinement, or abortion, in each of which the febrile attack terminated by an eruption of facial (usually labial) herpes. In each case the attack was ushered in by rigors, the pyrexia was severe, rising to 103 to 104 F., and in each case after the appearance of the herpes the patients rapidly recovered.

Lutand calls attention to the disquieting nature of these symptoms, and their liability to be confounded with those o grave septic infection, and suggests, that when strict antiseptic precautions have been taken in the conduct of labour of abortion, that no local condition can be found to account for subsequent rigor or pyrexia, it may be well to remember that the explanation of these phenomena may sometimes be found in the occurrence of the herpetic disorder described.

—Un. Med. Mag., April, 1897.

THE CURETTE IN LABOUR.

Rudin and Charpentier differ in their opinion of the postpartum use of the curette. A "giant curette" was exhibited recently at a French Society by Nitot, designed especially for the uterus during the puerperium when the small sharp instruments useful for the nonparens uterus are dangerous. Budin declared in the discussion that he no longer uses the curette after labour. The simple practice of clearing off all adherent fragments with the finger and then mopping the uterine walls has given excellent results in his hands. Charpentier strongly supports the early use of the curette under the same circumstances. He believes that suitable cases for curettage are kept too long waiting; the instrument must be used before the infective process has become generalized. When the uterine tissue has undergone changes from that process the curette increases the danger. Charpentier has never had bad results even indirectly after the use of the curette in the puerperium.—Un. Med. Mag., May, 1897.

TREATMENT OF OVARIAN TUMORS DURING PREGNANCY, LABOR AND THE PUERPERIUM.

Hohl reports five cases in which pregnancy was complicated by ovarian tumors. From a study of these he draws the following conclusions:—

(1) During pregnancy ovariotomy should if possible be performed in the early months. Premature labor should be favorably considered only in intraligamentous tumors when the operation is presumably difficult or in tumors which are fixed by adhesions. Puncture of the cyst as a therapeutic measure is out of the question.

(2) During labor the reposition of the tumor under anæsthesia should if possible be done. Failing in this, cystic tumors should be aspirated or they may be opened after vaginal incision. Cæsarean section is indicated in solid tumors when the child is alive, ovariotomy at the primary operation or after the puerperium. The performance of ovariotomy and the termination of labor per vaginam is not permissible.

(3) After a woman has been delivered while having an ovarian tumor, the extirpation of the tumor should be performed at the earliest time possible, certainly not later than the second week of the puerperium.—Un. Med. Mag., May, 1897.

WASHING OUT BLOOD IN A CASE OF STREPTO-COCCIC INFECTION.

DR. DALCHE. A woman, 27 years of age, who was admitted into the hospital with alarming symptoms of pyemia, presented several abscesses and a lymphangitic area in the lower limbs. The appearance during the following days of first a mitral, then an aortic murmur, suggested the possibility of the existence of endocarditis, as either the cause or the effect of an infection which bacteriological examination showed to be due to the streptococcus. An intravenous injection of I litre of Hayem's artificial serum was administered daily for five days in succession. Each injection was followed by a very intense rigor and by rise of the temperature to almost 42°, the latter becoming normal again toward evening. The general condition rapidly improved, and the patient ultimately recovered.—Brooklyn Med. Four., June, 1897.

GYNÆCOLOGY.

IN CHARGE OF

A. LAPTHORN SMITH, B.A., M.D., M.R.C.S. England.

Fellow of the American Gynæcological Society, and of the London Obstetrical Society; Gynæcologist to the Montreal Dispensary, and to the Western Hospital; Surgeon in Chief of the Samaritan Hospital for Women; Professor of Clinical Gynæcology in Eishop's University, Montreal.

Abstract of Paper on

THE RESULTS OF ONE HUNDRED AND FORTY-SEVEN OPERATIONS FOR RETROVERSION OF THE UTERUS:

By DR. A. L SMITH.

Read before the American Gynaecological Society at Washington, May 6th, 1897.

His paper was based upon ninety-four ventrofixations and fifty-three Alexander's operations. He held that ventrofixation was the only operation that should be entertained in cases of retroversion with adhesions; but it should not be done when the uterus was moveable and when there was no disease of the appendages requiring abdominal section, in which cases Alexander's operation had given excellent results. There should be no death rate to either operation, neither should there ever be hernia, either ventral or inguinal, if the follow-The two operations were ing directions were followed. equally easy, although a few years ago the author was opposed to Alexander's operation on account of its difficulty. Now he could invariably find the ligaments, and generally in from half a minute to a minute and a half. He warned his hearers not to do Alexander's operation if there were any adhesions, even if they were loose enough to permit the uterus to be lifted up; because they would be put upon the stretch and would drag so much upon the ligaments as to finally pull them out of their anchorage. In laying down the technique of Alexander's operation he placed great stress upon the importance of putting aside all cutting instruments as soon as the skin, superficial and deep fascia, had been cut through. Instead of laying open the inguinal canal as advocated by some writers, he advised his hearers not to cut a single fibre of the intercolumnar fascia which was the principal support of the pillars. Moreover, he said, the slightest nick of the fascis of the internal oblique would lead to a false passage and failure to find the ligament. If no cutting instruments were used, but only a Poeans forceps to draw out the ligament, there would be no difficulty in finding it, because there was nothing else in the canal but the ligament. In fact, with the eyes bandaged it could be found and drawn out,

simply by introducing the closed forceps and then opening them, when the round ligament will fall into them and can be drawn out. He advocated the use of fine silk-worm gut, which could be thoroughly sterilized and left in permanently. Occasionally he had been obliged to remove a buried stitch. In case any fibres of the intercolumnar or internal oblique should be accidentally cut, great care should be exercised in sewing them up to avoid hernia. He had only had one relapse after ventrofixation and one after Alexander, which were both subsequently repaired. Several of the cases of ventrofixation had since become pregnant and had had normal confinements. Also several cases of Alexander had had children. Many of the patients had been bedridden invalids for years before and were now enjoying excellent health. operations, each in its proper sphere, had given the greatest possible satisfaction.

INVERSION OF THE UTERUS.

By D. W. LYNCH, M.D , West Bend, Wis.

Cases of complete inversion of the uterus, following closely upon labor, are of such rare occurrence that the history of every case should have a claim on space in medical literature. The lessons learned by practitioners, and the experiences in those trials, must be interesting to relate and of advantage to the members of the medical profession. According recent statistics this accident occurs only once in about one hundred and forty thousand confinements, consequently very few obstetricians have an opportunity to witness a case, even after a life-long practice in midwifery. The great majority who have escaped the trials of such cases may consider themselves fortunate, for it is admitted by all to be one of the most formidable complications of parturition, leading to symptoms of the greatest urgency and requiring prompt and skillful treatment.

In my research through most of the annual reports of this society since 1877, I have not found a single case reported.

A case is recorded in the American Journal of the Medical Sciences, 1878, page 291, giving the experience of Dr. Samuel Hall, of Reedsburg, Sauk County, Wisconsin, which is well worthy of consideration, and is the only case I can find reported, in all the literature at my command, from our State. This goes to show the rarity of the accident, though it is liable to happen at a time least expected and in the practice of any one.

My first and only case occurred October 28th, 1895. I was called to see Mrs. B. in her first labor. She was 26 years of age, robust, healthy and of good physique. About 3

o'clock a.m. pains began, and kept gradually increasing in the natural course till I saw her at II o'clock of the same morning. She had had strong and frequent pains during two hours before my visit. I found her ready to begin the second stage; membranes intact; vertex presenting L. O. A.; strong pains with intervals of two or three minutes. She immediately begged for chloroform, which I gave her at once, and had it continued during pains until the child was born. I ruptured the membranes as soon as they began to press on the perineum. The child was born at noon, being a robust girl of average size.

The uterus contracted well, and as soon as I passed thechild to the nurse I sat beside the mother watching the condition of the uterus with my hand upon the abdomen. It behaved well all the time, and in about fifteen minutes I proceeded to remove the placenta by expression and slight trac-

tion on the cord.

The placenta, entire with all the membranes, was expelled within one minute.

The woman was not conscious of the birth of her child until. the placenta was delivered, owing to the effects of the chloroform. I sat beside her for fifteen minutes after placental. delivery. There was then no hemorrhage and the uterus wasof normal size and firmly contracted, when I left her to go in the next room to attend the dressing of the cord on the baby. The woman felt well and happy then that her labor was over. A minute later she cried: "Oh, doctor, I am bleeding terribly." I was with her in a moment and found her face the expression of agony and shock; there was no uterus in the abdomen; I found it between her thighs wrong side out, completely inverted. Realizing the situation I instantly grasped and pressed the uterus in my hand, then with the tips of my finger and thumb in contact, I made forcible pressure upwards upon the vertex of the inverted uterus, my other hand making counter pressure above the pubes, and amid the agonizing cries of the patient: "You are killing me, doctor," I had the satisfaction of reverting the uterus. It returned with an audible snap, in much less time than it takes me now to describe the operation. The patient soon recovered from the shock, not having lost much blood after all. I gave a vaginal douche of hot 5 p.c. creoline solution. She was dressed in clean cloths, the binder applied, and the bed made confortable. When I left her, an hour after the accident, she did not know that anything unusual had happened in her case.

I saw her again the next day, she was feeling well and appeared in normal condition in every respect. I did not see her again as she was ten miles away from my home, but I had

frequent reports of her condition for two weeks after. She wrote me the other day in reply to inquiries concerning her history since her confinement, stating that she was sitting up on the sixth day, began the care of her baby on the tenth day and then commenced her usual housework. She menstruated at five months and continued regular till August, 1896; she is now near term in her second pregnancy.

As to the causes of inversion of the uterus it is maintained that two conditions must necessarily exist in order to make the accident possible, viz: increase of the cavity and relaxation, either general or limited, of the walls. These conditions are presented by the uterus in pregnancy and labor, and then traction on the cord of an adherent placenta by the

-attendant is likely to produce it.

Traction on the placenta is frequently caused by the actual shortness of the cord, or by its winding about the body of the child making relative shortening, and then at the moment of the delivery of the child the uterus is inverted. Forceps delivery, in similar conditions of the cord, have produced inversion. Extra-uterine pressure misapplied by the attendant or the patient is liable to cause it. Other causes are related by authors in their endeavors to give us all the information in their possession; but that it does occur spontaneously is admitted, and my case substantiates the fact. There was no mechanical cause whatever acting as a factor in the case which I have here related. In all the cases which I find reported, the uterus was inverted with the placenta firmly attached partly or wholly. In my case there was no placenta, membrane or even a clot of blood within the uterus when I left her and a minute later there was complete inversion,

If any one doubts that this case was not spontaneous let him consider whether the effects of chloroform is a probable cause. I have thought of it, and suspected it, but I find no writer of recent times to entertain that position as worthy of consideration.—The Chicago Medical Review, June.

SIMULTANEOUS EXTRA AND INTRA-UTERINE GESTATION WITH SUCCESSFUL RESULT TO MOTHER AND BOTH CHILDREN.

This rare and exceedingly interesting case is recorded by H. Ludwig (Wien. Klin. Woch., July 2, 1896, Medicine), who claims that it is the first in which such results have been obtained. The patient, a Gallician woman, 35 years of age, sextipara, was delivered at home after a normal labor of six hours of a living female child at full term. A midwife in attendance discovered what was unmistakably a second child waiting for delivery and called a physician, who extracted

the placenta, but could not reach the presenting part of the second child. A consultation was had, and it was decided that laparotomy should either be performed at once or after the death of the fetus. The patient would not consent toimmediate operation, but on the fifth day of the puerperium she made a journey of seventeen hours to Vienna and entered the clinic of Professor Chrobak. The fetal movementscould be plainly made out and its position so well ascertained through the thin abdominal wall that a diagnosis of pregnancy of the left appendage with a living child was easily made.

Forty-five minutes after admission the laparotomy was performed. The operation presented no particular difficulties, but it was found necessary to remove the uterus and the right: appendages on account of the extremely vascular connection between the fetal sac and the uterus rendering it impossible to secure a pedicle. A vigorous male infant, 49.5 centimeters-

long, weighing 3570 grammes, was delivered.

All the classical indications of true ovarian gestation—of which but eighteen recorded cases can be found-were fulfilled in this instance. According to Spiegelberg the diagnosis of ovarian pregnancy can be made out with certainty from these conditions: The absence of the ovary on one side; ovarian elements in the wall of the sac; communication of the fetal sac with the uterus by the ovarian ligament; non-participation of the oviduct in the formation of the fetal envelope.

A CASE OF PRECOCIOUS MENSTRUATION.

J. W. Irion (New York Medical Fournal, Aug. 15, 1896. Medicine) reports the following case of a healthy female child born October 10, 1895: On the seventh day a bloody vaginal discharge was observed which lasted without other symptoms for four days. In December the flow did not occur, but the child suffered from the usual adult symptoms of suppression, and eczema broke out over the entire body. suppression was attributed by the mother to a cold bath. Since December the flow has been regular and the child's. health excellent. The mons veneris and breasts are considerably developed, the latter enlarging and becoming somewhat sensitive during the flow. The mother is a healthy German woman with one previous child, a vigorous boy. She herself began to menstruate at the age of thirteen years.

REGARDING ENDOMETRITIS FUNGOSA IN THE VIRGIN.

LATOUR (Revue internationale de Médecine et Chirurgie pratique, No. 18, 1896, University Medical Magazine, June).

According to this writer, endometritis fungosa may sometimes be found in virgins. The clinical symptoms do not differ from those seen during the sexual life of women,—fungoid growth of the endometrium and profuse menstrual hemorrhage. The first characteristic symptoms appear with the first menstruation. Infection with micro-organism, masturbation, and traumatisms, are, he believes, etiological factors. The treatment should be ergot, hydrastis canadensis, and hotwater douching. Ordinarily no operation is required, but one should not wait too long before resorting to dilatation, curettement, and the application of chloride of zinc.

A CASE OF SEPARATION OF THE CELIOTOMY WOUND A WEEK AFTER OPERATION.

SWITALSKI (Monatsschrift für Geburtshülfe und Gynåkologie, Band v, Heft 4, 1897, University Medical Magazine, June), at the meeting of the Krakau Gynecological Society on March 16, 1897, reported the following interesting case: The patient was 33 years of age, operated upon for pelvic inflammatory disease on January 20, 1897. The patient had had a cough before operation, which became much more severe and very persistent after operation. Narcotics were freely given, but without benefit. The convalescence, nevertheless, during the first week was perfectly normal. On January 28 the dressing was found saturated with a bloody fluid, and on removing the dressing intestines were seen covering the abdomen and the incision separated throughout its entire length. An anesthetic was administered at once, the intestines washed with warm Walthard-Tavel solution (normal salt solution), replaced in the abdominal wound, and the abdomen again closed with five interrupted silk sutures. The convalescence now proceeded without interruption, and the patient left the hospital well. Switalski calls attention to the perfectly normal convalescence following the accident, there being no subjective symptoms, the pulse and temperature ever remaining about normal. He believes the cause of separation in this instance was undoubtedly mechanical,—the severe and persistent coughing. The suture material employed in the primary operation was catgut, three separate layers being introduced. He had employed this method and material in twenty-two other cases without accident, and feels confident the method and suture material are not fault. This accident is not very rare for Rosner has been able to collect thirty-one cases which have been reported in the literature during the last three years.

ABDOMINAL ENUCLEATION OF FIBROID TUMORS OF THE UTERINE BODY; A. MARTIN'S MYOMOTOMY.

ENGSTROM (Monatsschrift für Geburtshülfe und Gynäkologie, Band v, Heft 4, University Medical Magazine, June). in a very complete paper, considers the pros and cons of the operative methods and other treatment which has been employed up to the present time for fibroid tumors of the uterine body. and strongly recommends Martin's myomotomy. He has performed this operation in 100 cases, where the tumor varied from the size of a hazel-nut to that of an adult head, with but five deaths. He believes, with all modern observers. that although these growths may in a few instances remain stationary in the uterine wall without causing symptoms, symptoms are apt to develop at any time during life, and usually they do cause symptoms, and should be removed. They may cause severe hemorrhage and resulting anemia, no matter what the size of the growth may be; pain from pressure of the nerves in the uterine tissue (Winckel), from uterine contraction, or from pressure on pelvic nerves; edema from pressure on pelvic veins; kidney-disease from pressure on the uterus; not rarely fatty degeneration or brown atrophy of the heart-muscle, necrosis and suppuration, sarcoma, and other degenerations or accidents which may indirectly result in death. The patient is frequently sterile because of the growth, and if impregnation occurs abortion follows. The tumor, it is true, may disappear with the degeneration of the puerperium, be spontaneously expelled, or atrophy at the menopause. The menopause is usually postponed to 50, 55, or 56 years of age (Schorler), and even then they may cause symptoms, particularly where calcareous infiltration occurs, by pressure on blood-vessels and nerves; they may continue to grow, suppurate, or necrose, as the writer has himself observed. Experience has definitely shown that medical and electrical treatment is of no value; that the only method of treatment is operative, either removal of the uterus and tumor per abdomen or vagina, bilateral oophorectomy, or myomotomy. The best mortality in all operations which remove the tumor is about the same,-5 per cent. Engström, however, believes the ideal operation is the one which removes the isolated fibroid orfibroids and allows the uterus, ovaries, and tubes to remain. The 100 cases which he briefly describes, the tumors, as said. varied in size from a hazel-nut to an adult head. Sixty-three times there was but one tumor, and thirty-seven times multiple tumors; from two to five, and once twenty-two were enucleated. Tumors which extruded into the uterine cavity. intramural, subperitoneal, intraligamentous, and one which

distorted and thinned out the cervix uteri were removed; also those with marked development of the blood and lymphvessels, more or less necrotic or calcareous change; those with intestinal and omental adhesions and sometimes exten-

sive pathological changes in the ovaries and tubes.

The greater number of cases gave the indications for hysterectomy if enucleation had not been possible. One patient died after fifty-seven hours with intestinal paralysis, frequent pulse without fever, no peritonitis or other signs of sepsis. One died ten days after operation from iodoform poisoning. One died with uremia resulting from carbolicacid poisoning before operation. Another seven days after operation with intestinal paralysis, frequent pulse, and respiratory failure; no signs of sepsis. Another began to have diarrhea the day following operation, and died on the seventh day. Ulceration was found in the colon and ileum and a fatty heart and liver. In three cases small tumors have since developed. In 113 cases reported by Martin tumors have since been found in three. This he believes is not a contraindication to the operation for good reasons given. patients have become pregnant since operation. One aborted at six months during an attack of typhoid fever; another in the fourth month; one went to term and was delivered of a living and healthy child; and one is now in the third month of pregnancy. Twenty-two of the patients were married and under 40 years of age. Of Martin's 113 cases two became pregnant. One aborted and the other was delivered of a living child. Twenty-seven per cent. of Martin's cases were married and under 40 years of age.

Medical Society Proceedings.

MONTREAL MEDICO-CHIRURGICAL SOCIETY.

Stated Meeting, Feb. 26th, 1897.

J. GEORGE ADAMI, M.D., VICE-PRESIDENT, IN THE CHAIR.

POST-TYPHOID OSTEO-MYELITIS.

Dr. G.E. Armstrong exhibited this case, and related the follow-

ing history:

This lad was admitted to the Montreal General Hospital in Dec., 1896, suffering from acute suppurative osteo-myelitis of the tibia. As you can see by the cicatrix the greater part of the shaft of the tibia separated. I have brought these large pieces of bone which I pass around. He is said to have suffered from typhoid in July and August, 1896. The tibia first showed signs of being affected during convalescence. At the time of admission to the hospital there was an acute suppuration process going on in the tibia, and his tempera-

ture as you can see from the chart was decidedly septic. In fact, notwithstanding active surgical interference, it seemed at one time as if the boy would succumb to septicæmia. We have had during the past few months several cases of bone lesion with suppuration following typhoid. One case that I expected to have been here tonight was a man who had a large abscess form over the left temporal and parietal bones, the pus containing a pure culture of typhoid bacilli. The occurrence of bone lesions after typhoid has been noticed for several years.

Murchison reported several cases. Keen, in 1876, reported upwards of forty cases, Sir James Paget twenty cases, and other writers have reported cases. In 1887, Ebermaier obtained a pure culture of the typhoid bacillus from two cases of post typhoid periostitis. Erlgi fractured a long bone in one of the lower animals, and at some distance from that point injected subcutaneously a pure culture of the typhoid bacillus. Suppuration occurred at the point of fracture, and the pus contained a pure culture of typhoid bacillus.

Orloff also produced suppuration in the lower animals by subcu-

taneous injection of pure culture of typhoid bacilli.

In many of these cases of post-typhoid bone lesion, the pus contained mixed culture. The typhoid bacillus has been found with the common colon bacillus, the pneumococcus and other pyogenic organisms.

No bone seems to be exempt, but the hands and feet are seldom affected. The tibia suffers, perhaps, more frequently than any other

bone.

A marked characteristic of these post typhoid bone lesions is their chronicity. Pain is aften complained of during convalescence, but it may be several months before suppuration is evident.

This condition requires radical treatment. Simple incision and drainage is followed by prolonged suppuration. Free incision, thorough scraping and irrigation with antiseptic solutions give good

and satisfactory results.

Dr. F. J. SHEPHERD recalled a similar case which had been under the care of the late L.r. George Ross and himself fifteen years ago. It was then called a periostitis and treated by incision, but the bone had not come away until last year.

REMOVAL OF A FIBROMA OF THE MESENTERY WITH RESECTION OF NEARLY EIGHT FEET OF SMALL INTESTINE.

Dr. F. J. Shepherd exhibited the patient from whom the tumour shown at the last meeting had been removed. With regard to the question of interference with nutrition raised at the time, he stated that the man had gained a pound a day.

SPECIMENS ILLUSTRATING NECROSIS OF SEROUS MEMBRANES.

Dr. WYATT JOHNSTON exhibited the specimens.

RUPTURED TUBAL PREGNANCY.

Dr. A. LAPTHORN SMITH exhibited the specimens, and gave the following account of the case:

The patient had been married six years and had had no children. An attack of pelvic peritonitis occurred shortly after marriage re-

sulting in more or less pain ever since, for which he had been con-Examination showed the uterus to be retroverted and fixed. and both tubes, especially the right, to be enlarged. After a course of local treatment she missed a period, and he, suspecting tubal pregnancy, thought it important she should know what was going to happen, and her husband was told that, if she should fall in a faint he would know that the tube had ruptured, and to send for the doctor at once. Another attack of pelvic peritonitis supervened, and while preparing her mind for the operation, one night he was sent for in a hurry and found her collapsed. After removal to hospital, laparotomy was performed, and on opening the abdomen two quarts of black clotted blood were removed. There was free hæmorrhage which was quickly controlled by ligature of the ovarian The fœtus was found free in the abdomen, and was alive. The abdominal cavity was washed out with warm salt solution, and left full, and a quart enema of the same solution administered. The patient had made an uninterrupted recovery, and her pulse, 120 previous to operation, gradually fell to 80 afterwards.

SURGICAL SHOCK AND HOW TO PREVENT IT.

Dr. A. Lapthorn Smith, in a paper on this subject, said that we often heard it stated that no one knew what shock really was. He thought that this statement was not correct, as we did knew that shock was a vivid impression or powerful irritation of the great sympathetic nerve leading to a forcible contraction of the arterioles of the surface and throughout the body, and a corresponding rush of blood into the great venous trunks, especially in the abdomen, which latter he said were capable of holding all the blood in the body.

According to the above definition, a horrible sight, or a blow upon the abdomen, or concussion of the nerve centres might all cause But he did not wish to deal with these forms of shock, but with shock during surgical operation, and especially during operations in the abdominal cavity. He maintained that genuine shock in these cases was rare; principally because, the patient being under anæthesia, the great sympathetic was less sensible to power-He thought that many cases, which were supposed ful irritation. to be suffering from shock after operations, were really suffering from something else, and he endeavoured to show that the low temperature, weak and rapid pulse, and pallor of the face and the depressing of the mental and physical powers were due to one or other of the following causes: hæmorrhage out of the blood vessels, or hæmorrhage into the large veins, cooling of the body surface and prolonged anæsthesia, prolonged handling of the intestines, and prolonged stay in the bad air of a crowded operating room. laid stress upon the importance of the Trendelenburg posture so as to prevent anæmia of the brain; and to the necessity of keeping. up the pressure in the coronary artery by which alone the heart is fed, by keeping the whole arterial system fairly full either by transfusion of salt solution during the operation, or by warm salt enemata before and after the operation, or by leaving the abdomen well filled with warm salt solution before closing it up. He also pointed out that much of the hæmorrhage could be prevented by finding

the principal arteries and tying them before cutting them, as was done in abdominal hysterectomy which was now almost a bloodiess operation. It should be remembered that a sudden hæmorrhage had much more serious results than a gradual one, as was seen in women with menorrhagia, who lost quantities of blood in a week, which would surely prove fatal if lost during an hour. He made a strong plea for speed in operating; this, however, did not mean carelessness or neglecting the minutest detail of asepsis. What he meant was absolute silence in the operating room, so that the attention of nurses and assistants should not be distracted for a moment, and also to have a large number of well-trained assistants to hand the various instruments and ligatures, etc., without being asked for He believed that metabolism or combustion was much lessened during anæthesia as the patient got no good air to breathe, and only a very limited amount of bad air, causing a depression of the vital functions from which the patient sometimes never recovered. He suggested a mixture of ether and oxygen, so that vital combustion would not be interfered with at all. He had always observed that the most successful operators kept their patients the shortest time under anæsthesia. He also pointed out the importance of having the intestines thoroughly emptied of gas and liquid before the operation, as the less they were handled the less danger was there of shock. The Trendelenburg posture was also of great assistance in keeping the intestines out of sight. Strychnine was valuable, not only because it kept the bowels contracted and empty, but because it stimulated the heart. He also advised the use of flat zinc pans under the patient on the operating table, filled with hot water, which was renewed from time to time in order to keep up the patient's temperature; this would enable the air of the operating room to be changed instead of keeping it close and stifling. care should be exercised in keeping the patient dry throughout the operation. The requirements of asepsis necessitated the use of much water, and if the patient's clothing were wetted the patient might be chilled, thus contributing to shock. He had found enemata of hot salt solution introduced gently of great value in rallying patients who were apparently in a condition of shock.

Dr. Jas. Bell said that the condition known as surgical shock covered a much wider range of conditions than those described by Dr. Smith. The real surgical shock was that due to accident, so-called surgical shock post-operative was generally due to prolonged anæsthesia, loss of blood, or chilling. He fully agreed in the need of rapid, well-planned surgical operations, as an unnecessarily prolonged anæsthesia might be of serious moment to the patient.

Dr. C. J. Edgar, of Sherbrooke, had charge of five hundred miners, and the picture conveyed to his mind by the word "shock" was that of a strong robust man pale as death, and pulseless, as the result of a severe injury. Dr. Smith had told how to prevent shock, but in these cases one did not have time to do anything but treat it. He had found a large warm enema of salt solution valuable.

THE

CANADA MEDICAL RECORD

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

Editorial.

BRITISH MEDICAL ASSOCIATION.

MONTREAL MEETING, 1897.

Since our last notice of what is being done in regard to the approaching Meeting, considerable progress had been made towards the completion of the arrangements, more especially in the work of the Excursion, Printing & Publishing, Museum, and Local Entertainment Sub-Committees. Preliminary programme has been printed and distributed, some 16,000 copies having been sent to members of the Asso-It appears in the shape of a pamphlet of some 50 pages, neatly printed on heavy paper with an artistic cover in colors. It is plentifully illustrated with lithographs and woodcuts, representing some of the chief points of interest in Montreal, Toronto and Quebec - more especially the University and Hospital Buildings. Several pages are devoted to a description of how to reach Montreal from Europe, referring to some of the advantages of the St. Lawrence Route as compared with that to New York on the magnificent Liners landing there from Liverpool and Southampton. Quebec and the picturesque St. Lawrence Route are referred to in glowing descriptive language, woven so as to give at the same time a bird's eye glimpse of the early history and characteristics of this Province.

Reference is made to the hotels and lodging accommodation in Montreal, and some useful hints to travellers are given in regard to securing berths, luggage, clothing, United States and Canadian money, etc. The excursions arranged for are described, and their attractions set forth in a way which must arouse the liveliest anticipation among those whose privilege it will be to take advantage of the low fare and enjoy the grand scenery of the St. Lawrence, the Saguenay, Lake St. John, or the grandeur of the Rockies. At the end is a note on the game laws, and a table indicating the open season for hunting the various kinds of game. The whole pamphlet is exceedingly well and tastefully gotten up, reflecting credit on the printers and engravers, and those whose good judgment is displayed in the appropriate selection of the text. The distribution of the programme at this early date throughout Britain will doubtless exert a favorable influence in the way of giving necessary information to those contemplating the trip, and may in some instances constrain the undecided to avail themselves of the treat that is in store for those who attend the 65th Annual Meeting. The Local Guide, which is in active preparation, will be on a more elaborate scale and form a volume of over 200 pages, and will be distributed at the Meeting.

P. of. Adami, who has been indefatigable in the preparations for the Meeting, left on the 22nd of May for England, and will be absent some six weeks. He has been delegated by the Executive Committee to visit the various Branches of the Association in England, Scotland, Dublin and Belfast, advising with them and giving all instructions required to facilitate arrangements for the journey, and at the same time endeavor to secure as large a contingent from across the Atlantic as possible. He will also confer with and assist the English Secretaries in regard to securing papers for the Meeting, and members to take part in the discussions. At the same time his presence in England will be of the greatest service to the General Secretary, Mr. Francis Fowke, and Dr. Saundby, the President of the Council, as he will be able to advise with them on all matters pertaining to the various details connected with the arrangements for the Meeting on this side. The President-Elect, Dr. T. G. Roddick, M.P.,

has left to visit Ottawa, Toronto, and London with a view of furthering matters connected with the Branches of the Association there. In the latter city, the attempt to form a branch has not been very successful, and we hope Dr. Roddick's visit will result in organising in this field of abundant material an active and live addition to those already existing in the Dominion.

The Montreal Branch has made remarkable strides in its membership during the past year, the number having increased from 70 to 243. Dr. Roddick will also, while at Toronto, confer with the Local Executive Committee of the British Association for the Advancement of Science, and endeavor to secure their co-operation in regard to Excursions.

The transportation difficulties which at one time threatened to prevent a number from coming are being gradually overcome. The Steamship Lake Ontario, which leaves Liverpool on the 21st of August, is a large and commodious vessel, having accommodation for 150 passengers, most of which is taken up by members. The Allan Line ships which sail on the 5th, 12th and 19th of August will bring over a number, and it is expected that the Peterson Line will despatch a vessel on the 20th of August, which would meet all requirements. It will be part of Prof. Adami's mission to see that ample transportation facilities are afforded to all who desire to come, and he will make any special arrangements that may be considered necessary.

The Local Entertaiment Sub-Committee, of which Dr. Girdwood is Chairman, will have a full and attractive list of entertainments provided for the guests, details of which we will give later. A Committee of Ladies is being organized to assist the Sub-Committee. The Golf Club has arranged for a series of matches to be held at their magnificent new Grounds at Dixie, to take place on Thursday, Sept. 2nd, and a cricket match is being arranged for among the Montreal Clubs. Dr. Roddick has written to all the Branches of the Association, both English and Colonial, requesting them to send delagates; answers have already been received from a number, most of them stating that the matter will be placed before the next meeting of their Councils.

STUDY OF THE AMERICAN MEDI-CINAL FLORA.

The Sub-Commission of the Pan-American Medical Congress, appointed to study the medicinal plants of the United States, has entered into an association with the Smithsonian Institution for that purpose. The attention of our readers is called to the respective circulars issued by these organizations, which we print below.

SMITHSONIAN INSTITUTION, WASHINGTON, D. C. May 28, 1897.

DEAR SIR,

The Smithsonian Institution has undertaken to bring together all possible material bearing on the medicinal uses of plants in the United States. Arrangements have been made with a body representing the Pan-American Medical Congress, the Sub-Commission on Medicinal Flora of the United States, to elaborate a report on this subject, and the material when received will be turned over to them for investigation.

The accompanying detailed instructions relative to specimens and notes have been prepared by the Sub-Commission.

All packages and correspondence should be addressed to the SMITHSONIAN INSTITUTION, WASHING-TON, D. C., and marked on the outside Medicinal Plants for the U. S. National Museum,

Franks which will carry specimens, when of suitable size, together with descriptions and notes, free of postage through the mails, will be forwarded upon application. Should an object be too large for transmission by mail the sender is requested, before shipping it, to notify the Institution, in order that a proper authorization for its shipment may be made out.

Respectfully,

(Signed) S. P. LANGLEY,

Secretary.

INSTRUCTIONS RELATIVE TO MEDICINAL PLANTS.

The Pan-American Medical Congress, at its meeting held in the City of Mexico in November, 1896, took steps to institute a systematic study of the American Medicinal Flora, through the medium of a General Commission and of special Sub-Commissions, the latter to be organized in the several The Sub-Commission for the United States has countries. been formed, and consists of Dr. Valery Havard, U.S. A., Chairman: Mr. Frederick V. Coville, Botanist of the U.S. Department of Agriculture; Dr. C. F. Millspaugh, Curator of the Botanical Department of the Field Columbian Museum, Chicago: Dr. Charles Mohr, State Botanist of Alabama; Dr. W. P. Wilson, Director of the Philadelphia Commercial Museums; and Prof. H. H. Rusby, of the New York College of Pharmacy. This Sub-Commission solicits information concerning the medicinal plants of the United States from every one in a position to accord it. The principal points of study are as follows:

- 1. Local names.
- 2. Local uses, together with historical facts.
- 3. Geographical distribution and degree of abundance in the wild state.
- 4. Is the plant collected for market and if so,
 - (a) At what season of the year?
 - (b) To how great an extent?
 - (c) How prepared for market?
- (d) What is the effect of such collection upon the wild supply?
 - (e) What price does it bring?
 - (f) Is the industry profitable?
- 5. Is the plant, or has it ever been, cultivated, and, if so, give all information on the subject, particularly as to whether such supplies are of superior quality, and whether the industry has proved profitable.
- 6. If not cultivated, present facts concerning the life history of the plant, which might aid in determining methods of cultivation.
- 7. Is the drug subjected to substitution or adulteration? and, if so, give information as to the plants used for this purpose,

While it is not expected that many persons will be able to contribute information on all these points concerning any plant, it is hoped that a large number of persons will be willing to communicate such partial knowledge as they possess.

It is not the important or standard drugs alone concerning which information is sought. The Sub-Commission desires to compile a complete list of the plants which have been used medicinally, however trivial such use may be. It also desires to collect all obtainable information, historical, scientific and economic, concerning our native and naturalized plants of this class, and, to that end, invites the co-operation of all persons interested. Poisonous plants of all kinds come within the scope of our inquiry, whether producing dangerous symptoms in man, or simply skin inflammation, or, as "locoweeds," deleterious to horses, cattle and sheep. In this respect, the general reputation of a plant is not so much desired as the particulars of cases of poisoning actually seen or heard from reliable observers. It is believed that much interesting knowledge can be obtained from Indians, Mexicans and halfbreeds, and that, consequently, Indian agencies and reservations are particularly favorable fields for our investigation. Such knowledge will be most acceptable when based upon known facts or experiments.

In order to assist in the study of the habits, properties and uses of medicinal plants, the Sub-Commission undertakes to furnish the name of any plant-specimen received, together with any desired information available.

Owing to the diversity in the common names of many plants, it will be necessary for reports, when not furnished by otanists or others qualified to state the botanical names with certainty, to accompany the same with some specimen of the plant sufficient for its identification. While the Sub-Commission will endeavor to determine the plant from any portion of it which may be sent, it should be appreciated that the labor of identification is very greatly decreased, and its usefulness increased, by the possession of complete material, that is, leaf, flower and fruit, and, in the case of small plants, the underground portion also. It is best to dry such specimens thoroughly in a flat condition under pressure, before mailing. While any convenient means for accomplishing this result may

be employed, the following precedure is recommended. Select a flowering or fruiting branch, as the case may be, which when pressed shall not exceed 16 inches in length by 10 inches in width. If the plant be a herb 2 or 3 feet high, it may be doubled to bring it within these measurements. it possess root leaves, some of these should be included. the specimen flat in a fold of newspaper, and place this in a pile of newspapers, carpet felting, or some other form of paper which readily absorbs moisture, and place the pile in a dry place under a pressure of about 20 to 30 pounds, sufficient to keep the leaves from wrinkling as they dry. If a number of specimens are pressed at the same time, each is to be separated from the others by three or four folded newspapers, or an equivalent in other kinds of paper. In 12 to 24 hours these papers will be found saturated with the absorbed moisture, and the fold containing the specimen should be transferred to dry ones. This change should be repeated for from 2 to 5 days according to the state of the weather, the place where the drying is done, the fleshiness of the specimens, etc. way to secure the required pressure is by means of a pair of strong straps, though weights will do. The best place for drying is beside a hot kitchen range. When dry the specimens should be mailed between cardboards or some other light but stiff materials which will not bend in transit.

It is a most important matter that the name and address of the sender should be attached to the package, and that the specimens, if more than one, should be numbered, the sender retaining also specimens bearing the same number, to facilitate any correspondence which may follow. The Sub-Commission requests that, so far as practicable, all plants sent be represented by at least four specimens.

(Signed),

H. H. Rusby, M.D., Chairman of the General Commission, New York College of Pharmacy.

VALERY HAVARD, M.D.,

Chairman of the Sub Commission,

Fort Slocum, David's Island,

New York.

RECIPROCITY IN MEDICAL LICENSURE.

ABSTRACT.

Dr. William Warren Potter, of Buffalo, president of the National Confederation of State Medical Examining and Licensing Boards, chose this for the subject of his annual address at the seventh annual meeting of that body, held at Philadelphia, May 31, 1897. He first paid tribute to the memory of Dr. Perry H. Millard, of St. Paul, then in an introduction reviewed some of the essential points of progress that had been made in state control of medical practice, and finally considered his subject.

The Problem.—The most important question now to be discussed pertains to the interstate exchange of licenses, and every friend of state control is interested in establishing this principle. It is one of the objects this confederation is laboring to accomplish, but a most difficult problem for solution. A national registration bureau is desirable where legally qualified and reputable physicians may be recorded—physicians whose names appear on this register to be allowed to pass from state to state in the enjoyment of all privileges pertaining to the practice of medicine. Those chiefly agitating the question of reciprocity, however, are specialists who desire to spend profitable vacations at summer resorts, and do not relish the idea of taking state examinations in the localities chosen for their holiday practice. Another class of men, compelled by circumstances to change residence, is more deserving of sympathy; they take the examination uncomplain-Shall a state require of its own citizens a compliance with its practice laws while granting to thrifty summer specialists exemption from their operation? As the state laws forbid discrimination against the inhabitants of each, there is both a legal and a moral bar to such exemptions.

Obstacles to Reciprocity.—Equality of standards for admission to the study and practice of medicine is the only enduring basis on which reciprocity can be established. When the several States adopt a uniform level of preliminaries, a uniform period of collegiate training including uniformity of methods of teaching; and finally, an absolute similarity in the methods of conducting state examinations and granting licenses, then reciprocity will be equitably and permanently

established. It is important for the state medical examiners to come to an agreement on these several points that they may act with intelligence on a common platform. The state imposes a post-graduate examination, and none should be admitted to it who are not holders of diplomas legally obtained from registered and recognized colleges. It is understood, of course, that there must be established a uniform system of recognizing and registering medical schools in the several States.

The Solution-Legislative Enactments.-The remedies lie in legislative enactments. Those who most loudly and persistently demand interstate indorsements aim their criticisms at examining boards; whereas, these have nothing to do with the question. The statutes in States that have established licensure prohibit interstate exchange except between such as have equality of standards. The demands of the restless and migratory doctors must be taken to the state legislative halls. Meanwhile, the members of this confederation may assist in bringing the matter to a more speed conclusion by acquainting their legislatures with the difficulties to be overcome, and by urgently recommending the adoption of such amendments to existing laws as will meet and remove the present defects. Great care must be exercised, however, in the preparation of amendments; the state laws are for the public weal; reciprocity is only for the few. Amendments to existing statutes should be proposed only through state medical examining boards of state medical societies: they are familiar with defects and best know the remedies needed. When legislature can be persuaded to turn a deaf ear to all amendments that are proposed outside of official sources, it will be a happy day for the friends of state license. The object of this discussion is to divert further criticism of the delay of reciprocity into the proper channel. If legislators could be made to appreciate the fact that public health interests are involved in the question of state license, that every attempt to weaken the principle is a blow at public sanitation, and that higher standards of medical education mean better health for the people, then perhaps it would be easier to obtain and maintain the necessary laws to protect the commonwealths against that kind of ignorance, superstition, or super-refinements that always lurk in the environment of quackery.

PROVISIONAL PROGRAMME.

CANADIAN MEDICAL ASSOCIATION.

Monday, August 30th, 1897.

I p.m.—Meeting at one of the Hospitals;

Address by Chairman of Committee of Arrangements; Clinical Demonstration.

- 3 p.m.—General Session; Reception of Visitors; Election of Members; President's Address; Addresses by Prominent Englishmen; Appointing of Committees.
- 8 p.m.—No General Session; Meetings of Committees, Tuesday, August 31st, 1897.
- 9.30.—General Session; Report of Committee on Inter-Provincial Registration; Report of Nominating Committee; Reports of other Committees; General Business.
- N.B. The Railways will grant a return trip on the certificate plan for single fare from points east of Fort William.

For further particulars, address,

F. G. STARR,

General Secretary,

471 College Street, Toronto.

Pamphlets Received.

- Remarks on the Treatment of Diabetes. Read before the Section of Practice of Medicine, at the Forty-fourth Annual Meeting of the American Medical Association. By N. S. Davis, jr., A.M., M.D., professor of Principles and Practice of Medicine and of Clinical Medicine, Northwestern University Medical School. Reprinted from The Journal of the American Medical Association.
- Animal Extracts. By N. S. Davis, jr., A.M., M.D., professor Principles and Practice of Medicine and Clinical Medicine, Northwestern University Medical School, Chicago, etc. Reprinted from the Chicago Medical Recorder, December, 1894.
- Remarks on the Causes of Claucoma. Read in the Section on Ophthalmology, at the Forty-seventh Annual Meeting of the American Medical Association, at Atlanta, Ga., May 5-8, 1896. By Leartus Connor, A.M., M.D., Detroit, Mich. Reprinted from the Journal of the American Medical Association, November 14, 1896.
- A Plea for Conservative Oral Surgery, with Practical Illustrations. By G. Lenox Curtis, M.D., New York City. Read before the Atlanta Meeting of the American Medical Association. Reprint from the N. Y. Medical Journal.
- Presidential Address on the Treatment of some Forms of Albuminuria by Reni-Puncture. Delivered before the Medical Society of London, Oct. 12, 1896. By Reginald Harrison, F.R.C.S. Reprinted from the British Medical Journal, Oct. 17, 1896.
- The Treatment of Tuberculosis and other Infectious Diseases with Oxytoxines. A Provisional Report. By J. O. Hirschfelder, M.D., Professor of Clinical Medicine, Cooper Medical College, San Francisco, Cal.

- Adenoid Vegetations in the Vault of the Pharynx. By Seth Scott Bishop, B.S., M.D., Chicago. Surgeon to the Illinois Charitable Eye and Ear Infirmary; professor of Otology in the Chicago Post-Graduate Medical School and Hospital; professor of Diseases of the Nose, Throat and Ear, in the Illinois Medical College, etc. Reprinted from the New Albany Medical Herald, September, 1896.
- A Clinical Study of Twenty-one Thousand Cases of Diseases of the Ear, Nose and Throat. By Seth Scott Bishop, B.S., M.D., LL.D., surgeon to the Illinois Charitable Eye and Ear Infirmary; professor of Otology in the Post-Graduate Medical School and Hospital; professor of Diseases of the Nose, Throat and Ear in the Illinois M. dical College, etc., Chicago. Reprinted from the Journal of the American Medical Association, September 26, 1896.
- The Doctorate Address delivered at the Commencement of the Illinois Medical College. By Seth Scott Bishop, M.D., LL.D. Professor of Diseases of the Nose, Throat and Ear; professor of Otology in the Post-Graduate Medical School and Hospital; surgeon to the Illinois Charitable Eye and Ear Infirmary, etc.
- Acute Suppurative Inflammation of the Middle Ear: Acute Suppurative Mastoiditis: Abscess of the Neck: Operation. By the same author. Reprint from The Laryngoscope, St. Louis, September, 1806.
- New Method of Performing Intestinal Anastomosis, with Special Reference to its Adaptability to Inguinal Colostomy and Subsequent Restoration of the Fecal Current. By J. A. Bodine, M.D., of New York, adjunct professor of Surgery in the New York Polyclinic Medical School and Hospital. From the Medical News, January 9, 1897.
- Scoliosis and Its Treatment by Means of Cymnastics. By Dr. T. J. Hartelius. Director of the Central Institute of Gymnastics, Stockholm, Sweden. Translated by Dr. David Paulson, with supplements by J. H. Kellogg, M.D.
- Introductory Clinical Lecture. By L. Webster Fox, M.D., Philadelphia, Pa.
- Ophthalmia Neonatorum. By the same author. Reprinted from Medical Council, February, 1897.
- The Dispensaries of New York City: their Use and Abuse. By Walter Brooks Brouner, A.B., M.D., New York. Reprint from the Medical Record, March 6, 1897.
- Remarks on the Management of Glaucoma. Read before the Michigan State Medical Society. By Leartus Connor. A.M., M.D., Detroit, Mich. Reprinted from the Journal of the American Medical Association, Aug 1st 29, 1896.
- Notes on Some of the Ne ver Remedies used in Diseases of the Skin. Address of the Chairman delivered in the Section on Dermatology and Syphilography, at the Forty-seventh Annual Meeting of the American Medical Association, held at Atlanta, Ga., May 5-8, 1896. By L. Duncan Bulkley, A.M., M.D., New York. Reprinted from the Journal of the American Medical Association, November 28, 1896.
- A Contribution to the Natural History of Scarlet Fever. By John T. Wilson, M.D., D.P.H. (Aberd.), Medical Officer of Health, Lanarkshire.
- Ulcers of the Cornea—Implantation of a Glass Ball for the Better Support of an Artificial Eve. By L. Webster Fox, M.D., professor of Ophthalmology in the Medico-Chirurgical College, Philadelphia, Pa. A Clinical Lecture delivered at the Medico-Chirurgical College, October 30, 1896. Report from the Medical Bulletin.
- Report on the Sanitary State of the City of Montreal, also an account of the Operations of the Board of Health and the Vital Statistics for the Year 1895. By Louis Laberge, Medical Health Officer.

- Vingt Cas de Fractures de Clavicule Traites par le Massage. Par le Dr. Dagron, ancien interne des hôpitaux de Paris, chargé du service des massages des fractures à l'Hôpital Beaujon. Extrait du Journal de Médecine et de Chirurgie Pratiques, 25 août 1896.
- Le Role de la Craisse dans les Hernies. Applications thérapeutiques. Préventions des Hernies. Préparation des sujets à opérer. Traitement palliatif des sujets inopérables. Par le Dr. Just Lucas-Championnière, chirurgien de l'Hopital Beaujon, membre de l'Académie de Médecine. Extrait du Journal de Médecine et de Chirurgie Tratiques, 10 septembre 1896.

PUBLISHERS' DEPARTMENT.

THE LIVING AGE, for all its fifty-three years of life, was never fresher, more vigorous or more valuable than now. Timely able articles on the leading questions of the day, papers of interest and value, biographical, historical and scientific, are always to be found within its pages. The following partial contents of recent issues will give a slight idea of its world-wide scope and variety.

"Some Changes in Social Life During the Queen's Reign," by Sir Algernon West; "The Apotheosis of the Novel under Queen Victoria." by Herbert Paul; "The Integrity of the Ottoman Empire as a Diplomatic Formula." by Wemyss Reid and J. Guinness Rogers; "The Statesmen of Spain," by Emilia Pardo Bazan (translated for The Living Age from the Deutsche Revue). "Among the Liars" is the title given to an account of a visit paid to Crete a couple of years ago, and is of interest at this time when the name has become so tragically familiar. "Russia on the Bosphorus" is of more than ordinary interest, emanating, as it does, from the pen of an English naval officer, Cant. I. W. Gambier, R. N. "Henryk Sienkiewicz," the "Polish Tolstoi," as he has been called, by Edmund Gosse; "1497-1807: East and West," by Edward Salmon; "A Common Citizenship for the English Race," by A. V. Dicev; "Recollections of Frederick Denison Maurice," by Edward Strachey; "The Twentieth Italian Parliament, by "Ouida"; "The Birds of Tennyson," by Edgar Valdes; "Brahms and the Classical Tradition," by W. H. Hadow; "The Position of Non-Conformity"; "The Passing of the Fur Seal"; "Herr Richter's Great Speech": the attractive serial "In Kedar's Tents," by Henry Seton Merriman, which continually grows in interest; some good short stories and equally good poetry, with the Monthly Supplement devoted to American magazines, extracts from New Books, and a List of the Books of the Month, vindicate the claim of its publishers that The Living Age is a reflection of the world's best thought and literature.

Published at \$6.00 a year by The Living Age Co., Boston.

IT HAS NO RIVAL.

At the meeting of the American Medical Association, held at Washington, D. C., Dr. John H. McIntyre reported "Ten Selected Cases of Laparatomy, with Remarks." From this paper, published in the Journal of the American Medical Association, we quote as follows:

"I use but little opium or morphia, for the reason that these drugs, by locking up the secretions, limit the power of elimination, and therefore favor septicæmia. For over a year past, in cases of laparotomy where pain and rise of temperature were present, I have used antikamnia in ten-grain doses, with the happiest effects."

A further objection to opium and its derivatives is referred to in an article by Dr. Herman D. Marcus, resident physician, Philadelphia Hospital (Blockley), published in Gaillard's Medical Journal, from which we quote: "There is probably no group of diseases in which pain is such a prominent and persistent symptom as uterine or ovarian disorders, and in no class of cases have I been more convinced of the value of antikamnia than in the treatment of such affections. An obstacle in the use of morphia is the reluctance with which some patients take this drug, fearing subsequent habit. Antikamnia causes no habit, and I have never found a patient refuse to take it."