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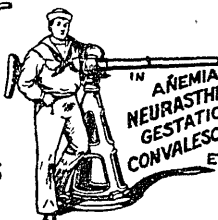
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THE MARITIME MEDICAL NEWS

VOL. XX., AUGUST, 1908, No. 8

Puerperal Eclampsia.

The *British Medical Journal* for May 23, contains an article by J. M. McCarthy, entitled "Puerperal Eclampsia with special reference to its Treatment with Nitroglycerin." The article is based on a series of eighteen cases of puerperal eclampsia. The convulsions are very similar to uræmic convulsions—in both the convulsions are probably brought about by a toxine, the origin of which is faulty elimination on the part of the kidney. The stage at which the convulsions threaten or occur will indicate the nature of the treatment. In the premonitory stage where they threaten before labour occurs, the treatment should tend to avert toxæmia. All the care in treatment that would be given to an early case of nephritis, especially that relating to diet, should be carried out. Nitroglycerin may be very useful. The period of labour itself may be divided into two stages: (a) Where the convulsions are slight and the labour slow, the object should be to avert convulsions. The subcutaneous administration of morphine and nitroglycerine, used alternately is beneficial in this stage. With a rigid os and increasing convulsions, Cæsarean section might have to be considered. (b) When convulsions are increasing and labour advancing—even if the os is dilating well—all energies should be devoted to expediting labour. This is the stage where chloroform is essential and a drug of the greatest utility. When labour is over the treatment should aim at the restoration of the

function of the kidneys and the recovery of nervous system from the shock which it has sustained. The writer was led to the use of nitroglycerine in puerperal eclampsia because of the favourable results following its use in cases of contracted kidney. Of five cases of puerperal eclampsia treated without nitroglycerin, three died. Of two cases in which it was given internally only, one died. Of eight cases in which it was given hypodermically only one died. The mortality among infants was four out of fifteen, or about 26.7 per cent.



Progressive Muscular Atrophy.

In a paper contributed to the *Practitioner* for June, G. Rankin states that this disease may affect the lateral columns as well as the anterior horns of the spinal cord, an atrophic change in the motor neurones being primarily responsible. The cause of the disease is unknown. It usually occurs in men older than thirty. Overwork, worry, exposure, trauma, and syphilis have been identified as influential in producing it. Myalgic pain is an occasional symptom. The wasting usually begins in the small muscles of one hand, and extends until most of the muscles of the arm and many of the trunk are atrophied. The muscles of respiration are ultimately involved. The reflexes may be impaired, but are not abolished until late in the disease. The disease continues for years, death usually resulting from some organic disorder, but it may come from extension to the bulbar centres in the medulla. The diagnosis is not usually

difficult, but it may be confounded with peripheral neuritis, syringomyelia, or lead poisoning, or muscular dystrophy. The best treatment consists in the hypodermatic use of strychnine. Arsenic and silver nitrate are also useful, also the ordinary tonic drugs. If syphilis is present, the proper antisyphilitic treatment is indicated. Massage, electricity and radiant light baths are beneficial, and a dry, sunny climate should be chosen if possible.



Determination of Opsonins. In a paper which appears in *Muenchener medizinische Wochenschrift* for May 19, entitled "A new Clinical Method for the Determination of Opsonins." Kämmerer suggests the following method: (1) The serum is obtained and centrifuged in the usual way. (2) An emulsion of bacilli is prepared, not in the usual physiological salt solution, but in a 1.5 per cent. solution of sodium citrate. (3) Blood from a healthy person is taken at the same time, from the finger, and added to the other substances in Wright's capillary pipettes. Pipettes are prepared, one containing two parts blood of healthy person, one part immune serum, one part emulsion of bacteria, while another contains two parts blood of healthy person, one part normal serum one part emulsion of bacteria. The mixing is done according to Wright's method. The presence of the emulsion of bacteria prevents coagulation. Quick work is necessary. The pipettes are sealed and placed for half an hour in the oven. Examinations are best made on cover glasses with Canada balsam, as its transparency assists in the counting.

The contents of the two pipettes differ only in that the one contains immune serum and the other normal serum.

Preservation of the Ovaries. An article by R. Peterson, entitled "Preservation of the Ovaries, Entire or in Part in Supravaginal or Panhysterectomy," appears in the *American Journal of Obstetrics* for May. Peterson's conclusions are as follows: (1) Ten per cent. of those who are still menstruating at the time the uterus and ovaries are removed will not be troubled by the artificial menopause. (2) This percentage will be more than doubled if a portion of the ovarian tissue is retained. (3) Symptoms due to the artificial menopause are not severe when the ovaries are not removed with the uterus. (4) A young woman from whom uterus and ovaries are removed does not necessarily have a troublesome menopause. Those who are operated upon between the ages of forty and forty-four suffer the most. (5) It should not be the rule to remove the ovaries with the uterus in those who have passed forty. (6) The severity of the artificial menopause is uninfluenced by the variety of the hysterectomy, whether the ovaries are removed or not. (7) The severity of the artificial menopause is uninfluenced whether the uterus and ovaries are removed for fibroid or inflammatory disease. (8) If a portion of the ovaries is retained after hysterectomy, the period of bad symptoms from the menopause will be shortened. (9) The larger the portion of the ovaries retained, the less severe will the menopause symptoms be.



Hæmorrhages from the Stomach and Duodenum. Many surgeons believe that in hæmorrhage from the stomach gastro-jejunosotomy is efficient as a curative agent without direct attack upon the bleeding vessel. Will J. Mayo, writing in *Surgery, Gynecology and Obstetrics* for May, agrees with this

opinion only as regards small and moderate hæmorrhages. In cases of severe bleeding from pre-pyloric and duodenal ulcers, gastrojejunostomy may prove inefficient (3 cases of severe hæmorrhage continuing after gastroenterostomy are reported). In connection with the gastrojejunostomy, if an ulcer exists in the stomach it should be excised if possible. When this is not feasible the main blood vessels leading into it should be ligated and the peritoneum and muscular coats drawn over it. Excision however is the best procedure as it gets rid of the disease and prevents a possible secondary cancerous degeneration. Bleeding ulcers which lie a considerable distance above the pylorus should be excised. In extensive ulcers, such as the hour-glass variety, this may amount to resection in continuity. In doing this resection much deformity may result from the plastic closure of the gap produced by removal of the ulcer, and should the deformity interfere materially with drainage through the pylorus, gastrojejunostomy in addition may be required. In hæmorrhage from duodenal ulcer ligation of the blood vessels and closure of the outer coats over the indurated area with gastrojejunostomy will be found efficient. For severe hæmorrhages from the stomach in those cases in which no ulcer can be located from the exterior, the anterior wall of the stomach is opened by a longitudinal incision and by counter pressure successive areas of the mucous membrane are presented at the opening until the bleeding point is detected. With chromic catgut on a small curved needle the hæmorrhage area is sutured from the mucous side. Over this on the peritoneal side a few fine sutures are introduced for protection, after which the working incision of the stomach is sutured in the usual manner.

**Syphilis of
Nervous
System.**

An article entitled "The Diagnosis and Treatment of Syphilitic Lesions of the Nervous System," is contributed to the *American Journal of the Medical Sciences* for April, by T. H. Weisenburg. The importance is urged of as early diagnosis of these lesions as is possible since the greatest benefits are promised only by early therapeutic measures. Happily, in but a few of those infected do lesions of the nervous system follow. Certain infections and perhaps certain families seem to present unusually numerous instances of nerve lesions, due probably to a virulent infection and weakened resistance of nervous structures.

These tissue may be attacked almost immediately or only after many years. Pathologically, there is always a round-celled infiltration about the blood-vessels and in the pia—a secondary endarteritis and permanent thickening of the meninges. Rarely small gummata are found, but these less commonly than is supposed. More rarely still the substance of brain or cord is involved. If many years after the infection, there is usually sclerosis of vessels, thickening of meninges, sometimes gummata, but it is principally to the results of endarteritis that symptoms are due. There are, however, other gradual changes in nervous structures thought to be the results of toxins.

Among the earliest symptoms is a sudden myelitis, usually of lower thoracic or thoracic-lumbar region, with loss of power in both limbs, loss of bladder and rectal functions, and sensation. Girdle sense and pain may also be present. Even in the midst of treatment, diffuse symptoms, the result of multiple lesions of brain or cord, may appear with irregular motor and sensory involvement

in addition to meningeal symptoms. Hemiplegia from early endarteritis is also a common and early symptom. Meningitis of the base is most severe about the chiasm and hence the common involvement of the optic, oculo-motor, and sixth nerves. Disturbance of the reaction and regularity of the pupil is one of the most common and constant features. Oculo-motor palsy unilateral in type occurs most frequently and has been called the sign-manual of cerebral syphilis.

Owing to the meningeal involvement of the cord being greatest in its posterior portion, girdle sense and pain are common symptoms. After the fifth year either brain or cord symptoms are apt to predominate. It is in the period of round-celled infiltration that treatment avails much and this should be vigorously mercurial. More is to be hoped from mercury than from iodides.



Nerve Anastomosis.

In an article entitled "Nerve Anastomosis in Infantile Paralysis," contributed to the *Medical Record* for July 11, Karl Osterhaus says that a great deal of the deformity which occurs in infantile paralysis could be prevented by early treatment of the acute stages of the disease tending to limit the area involved, and by fixation of the limb in a normal position when the acute symptoms have subsided. Later these deformities require some form of operation to correct them, such as tenotomy, myotomy, tendon and muscle transplantation, astragalectomy, arthrodesis or osteotomy. All of these procedures are of value in selected cases. The attempt to cause innervation of the paralyzed muscles by connecting them with a healthy nerve is of great value. This

operation can do no harm, and in many cases does much good. End-to-end anastomosis of split-off segments of the two nerves promises the best results by means of closer union. Massage and electricity should be used after the operation to aid in regeneration of function of the affected muscles. The author describes a case operated on in this way with very beneficial results.



Epidemic Infantile Paralysis.

M. A. Starr gives an account in the *Journal of the American Medical Association* for July 11, of the epidemic of infantile paralysis in New York city and vicinity in the summer of 1907. It began about May, the number of cases steadily increasing until it reached its height in August and September. Cases continued to appear in October and some were reported as late as December. The summer was warm and unusually dry; other infectious diseases were not particularly prevalent. It is estimated that 2,000 cases occurred in this epidemic with a morbid infantile hemiplegia, and this seems per cent. Attacks of diarrhoea preceded the attacks in many cases, but it was impossible to trace any connection with the water or milk supply in this epidemic. The symptomatic picture was in some cases that of poliomyelitis of the ordinary type; in other cases, of poliomyelitis with bulbar paralysis; in others, of poliomyelitis with polioencephalitis of Wernicke. In a few cases there was true infantile hemiplegia, and this seems to have been more common last summer than usual, suggesting that the infectious agent attacked the cortical motor nuclei. Pain was a symptom particularly prominent in this epidemic. In many cases in which the

arms were involved the respiratory muscles were also affected and when death occurred it was more from respiratory paralysis or heart failure than from any febrile affection. The acute onset usually subsided in a week or ten days and improvement was noticed beginning at the end of the second to the fourth week. In the great majority this has continued, and as a rule is likely to go on for two years. In many cases, in which the paralysis was not very intense, but still marked, there was a complete recovery, and the frequency of such abortive cases was rather unusual. On the other hand very rapidly fatal cases occurred, the mortality reaching the unusual figure of about seven per cent. The paper includes a biologic study of the cerebrospinal fluid in twenty cases which seems to indicate that the diagnosis of poliomyelitis by means a serum reaction is not possible, and throws no light on the etiology of the disease. The pathologic findings are discussed; the results of the later work in this direction have merely confirmed the statements of previous observers. As regards the bacterial origin of the disorder, authorities differ. Starr concludes from the facts, so far as known, that while the clinical history of the disorder implies an infection, it must be admitted that up to the present time the organism responsible for the disease has not been discovered, and that it is still a matter of uncertainty whether the causative agent is a micrococcus or a toxin. The weight of evidence, however, is in favour of the latter. Starr has collected accounts of thirty-seven epidemics of poliomyelitis of which he gives brief summaries. Some interesting points regarding prognosis are noted. The

mortality of sporadic cases is very low, but in the epidemics it reaches the rather alarming figure of from six to ten per cent. On the other hand they have shown that in twenty-five per cent. of cases there is complete recovery, compared to the very general persistent paralysis in sporadic cases, and while in many cases some permanent paralysis remains a marked improvement almost always occurs. Thus a certain hopefulness is warranted in all non-fatal cases. For treatment, he advises dry cupping of the back to relieve the congestion in the early stages, or ice bags may have a like effect, and cool sponging may help to keep down the fever. Sedatives are usually required for pain; the child should be kept very quiet, a brisk purgative should be given, and the food during the first two or three days should be chiefly milk. Cushing has shown that the administration of hexamethylenamin results in the presence of formaldehyd in the cerebrospinal fluid, a fact which Starr has been able to confirm, and he suggests therefore the use of small doses of this drug during the onset of the disease or until after fever subsides. Salicylate of soda has been used and good results reported. Starr prefers salicylate of strontium as less likely to irritate the stomach. After the onset is over and pain has subsided, it is best to suspend treatment for two weeks and begin the use of strychnia, which should be pushed as far as consistent with safety. Massage, manipulations and electricity are also useful. It is especially important to ward off deformities by the proper use of orthopædic measures and it is never wise to delay them until deformity has been produced. The orthopædic treatment of these cases is more important than any other.

**Origin of
Urinary Casts.**

In a paper appearing in the *Boston Medical and Surgical Journal* for May 7, entitled "The Origin of Urinary Casts; an Experimental Study," R. M. Smith reports experiments upon rabbits in the effort to throw light upon the manner of formation of casts. Different irritant agents, which are known to cause nephritis, were successively used, viz., uranium nitrate, potassium bichromate, arsenic, cantharidin and trypan red. The uranium nitrate gave the most typical and constant results. It was first ascertained that the animals had no albumen or casts in the urine, and then the urine was collected constantly, and analyzed daily, with special reference to albumen and casts.

It was noted that the first casts to appear were always of the fine granular variety, and the hyaline casts appeared later. There was a tendency for the casts to come in showers—many one day and none the next.

Those urines containing many casts usually showed a correspondingly large amount of albumen, but when the kidney lesion was chiefly glomerular, the casts were few in proportion to the quantity of albumen. Sectional studies of the kidneys were made from freshly killed animals after varying dosages of the irritant.

Histologically, the first change to appear was a swelling of the cells of the distal convoluted tubules, with an obscuring of their boundaries and of the tubular lumen. The straight tubules were similarly, though much less, affected. A continuation of this process resulted in a marked degeneration of the cells with the formation of a granular necrotic mass, which is gradually forced along the tubule by the pressure of urine, losing its gran-

ular character until it is finally homogeneous and hyaline.

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**Room
Disinfection.**

W. B. McLaughlin, writing in the *Medical Record* for July 18, finds that all the methods of room disinfection at present in use are open to the objection that the gas used does not penetrate to a sufficient degree to kill germs that are far from the surface of objects to be disinfected. This he has ascertained by experiments instituted by himself. Large quantities of formalin poured upon the surface do not give off gas enough to cause penetration. The author has found that a mixture of formalin and carbolic acid does give off gas that penetrates fabrics efficiently. He uses a mixture of 75 per cent. of a 40 per cent. formaldehyde solution and 25 per cent. carbolic acid. Eight ounces are used for each 1,000 cubic feet of air space, and the room is closed for twelve hours. He uses a sheet saturated with the solution and hung in the room to be disinfected. Experiments on bacillus pyocyanus have shown that it is killed through many layers of fabrics. This method is recommended for trial by other physicians.

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**Ocular
Complications
of**

Pregnancy.

The ocular disorders distinctively due to the pregnant condition and not to other co-existing conditions, are discussed by H. Woods, in the *Journal of the American Medical Association* for July 18. For the purpose of study he divides them into four groups, based on the clinical manifestations: (1) The so-called uræmic amaurosis, or sudden and complete blindness without ophthalmoscopic lesion; (2) the hæmorrhagic, exudative and degenerative changes in the

retina, occurring in connection with albuminuria, and termed albuminuric retinitis of pregnancy; (3) temporary or permanent loss of central vision or of some portion of the visual field, without retinal lesion, the fundus either appearing normal or showing pallor of some portion of the optic disc; (4) a definite neuroretinitis, with hæmorrhages and exudates, but not like the albuminuric retinitis. As regards the first of these, the term "uræmic amaurosis" has the same meaning as in nephritis; sudden occurrence of blindness or great impairment of vision, with or without nervous symptoms, etc. Pupillary reaction is generally preserved, and this, Fuchs thinks, indicates the cause to be in the brain, above the optic nerve. While the symptoms has the gravest significance in nephritis, it is usually transitory in the pregnant woman, though it may be grave also here. In Woods' experience, it is confined to eclamptic cases after the convulsions. It is not supposed to indicate the serious kidney disorganization in pregnancy that exists with it in nephritis. Woods discusses the so-called albuminuric retinitis of pregnancy at some length, and is inclined to attribute it to a toxæmia, the kidney complications, as in eclampsia, being secondary. The same appearances may be produced by other conditions than kidney disease, and he does not think it too much to ask that we cultivate at least an open-mindedness regarding the causation of what has been called albuminuric retinitis of pregnancy. So long as we insist on an albuminuria we run the risk of sacrificing eyes. There is but one remedy that will cure the disease—prompt emptying of the uterus. But if we consider albuminuria an essential factor, and it does not appear, as in cases he has seen, our therapeutics

will be misguided and the patient suffer in consequence. Of the third group, loss of central vision or of other portions of the visual field, two cases are reported by Woods, and he reviews the literature of similar cases. Here also he favours the theory of a causal toxæmia. He thinks that when there is in these cases a total obliteration of a retinal half, it is probably the result of a thrombotic process, while the fields showing only a quadrant involved indicate a toxic neuritis, certain fibres escaping, while others were destroyed. Both thrombosis and neuritis are essential factors of deep toxæmia. Lastly, Woods reports two cases of the fourth group, hæmorrhagic, exudative neuritis, not suggesting the so-called albuminuric type. He has not been able to make as complete a study of the literature of this class of cases as he could wish, but what he has found justifies classifying them as complications of pregnancy. In the cases reported the urinary analysis gave exactly what Whitridge Williams has described as the diagnostic basis of pernicious vomiting of pregnancy, viz., an ammonia co-efficient persistently above ten per cent., yet there was very little nausea and no vomiting, but there was a destructive neuroretinitis, dependent on venous thrombosis, and thrombosis is a recognized result of pregnancy toxæmia.

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The Eye and Vascular Disease. Thirteen cases illustrating the importance of ocular changes, neuroretinitis, retinal hæmorrhage, optic neuritis, etc., as pointing to the existence of cardiovascular disease, are reported by Melville Black, in the *Journal of the American Medical Association* for July 18. He calls attention to the fact that other symptoms, especially subjective ones, may be

lacking, the patient may be on his last legs, so to speak, and yet feel no pronounced bodily ailment or any thing serious enough to induce him to call on a physician. He may, however, have occasion to call on an oculist, who, therefore, should be on the lookout for these evidences of cardiac disorder. "Optometrists" will always be incompetent to detect these danger signals in the eye, and this is one more urgent reason why they should not be licensed to practice their would-be profession. While the ophthalmologist keeps up with the general advance of medicine, he is not usually prepared to make an all-round physical examination, nor is the family physician able to do it as a rule. Black, therefore, when he detects these ocular signs sends the patient to some one prepared to make such a complete examination, and then returns him with their joint report to his physician. A dilated heart can only be mapped out by the most pains-taking deep percussion, and the presence of a low blood pressure, polycythæ-

mia and dilated tortuous retinal veins, uricacidæmia and indicanuria, all point to a clear diagnosis of general venous stasis, which tends not only to shorten life, but also opens the way to many physical mishaps before the end comes. He has been specially impressed by the frequency with which general venous stasis is present with degenerative ocular changes, which serves to indicate the connection between the two. Such conditions are doubtless met with more frequently at Denver than in lower regions, how much more frequently he can not say. He also calls attention to the importance of reduction of the blood pressure in cases of chronic interstitial nephritis in which the retina is involved; this is especially illustrated by several of the cases reported. In one of these the patient was apparently snatched from death when on the verge of uræmic convulsions and good vision was also restored, lasting until death a year later.



INSANITY, THE GENERAL PUBLIC, AND THE GENERAL PRACTITIONER.

By THOS. J. MOHER, M. D.

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(Read before meeting of Canadian Medical Association, Ottawa, June, 1908).

I HAVE long felt that the relationship existing between the general practitioner, the general public, and insanity should receive some consideration at the various medical meetings held throughout the country. It is true that a great deal has been said and written on this subject from time to time, but I doubt if much good has been accomplished because these papers have been read and discussed at meetings attended almost wholly by physicians engaged in the practice of psychological medicine. Up to the present time in this province and throughout the Dominion the discussion of matters pertaining to insanity has not received the attention and consideration which it deserves. As a result of all this and for other reasons which shall be referred to later on, it is not unusual at the present time to find a large number of intelligent and skillful physicians willing to admit that they are more or less at sea when called on to take charge of a patient suffering from mental aberration. They are unable to predict with any degree of confidence as to what the outcome of the trouble may be, nor do they appear to realize how much may be done in the way of preventing the disease becoming so firmly entrenched that all future efforts in the way of treatment are unavailing.

In making this statement I wish it to be understood that I do not in any way reflect on the intelligence or skill of the general practitioner. Far from it. A number of years spent in general practice has convinced me that these men working quietly, faithfully

and effectively together, hampered by a hundred obstacles and receiving but a meagre compensation for their services, are rendering the general public and the state as great a service as the trained specialists whose names more frequently adorn the annals of our country. I merely wish to say that in this particular branch of medicine they are not fully equipped to render the greatest possible assistance to the patients under their care. And how could it be otherwise when we consider that they have not had an opportunity of acquiring the knowledge, which I am sure they are anxious to possess? During their college course they have received careful and thorough training in the different branches of medicine and surgery. Nervous diseases have received some consideration, but psychiatry has been relegated to the back ground. Those of you who attended college fifteen or twenty years ago will, I think, agree with this statement, and while there has been some little improvement in recent years the course is still far from satisfactory.

That this condition exists is not due to the fact that excellent teachers were not available. There has not been a time during the past twenty years when the physicians in charge of the hospitals for the insane in the different university centres in this province could not have provided an excellent course of lectures and clinical instruction for medical students, but unfortunately the curriculum did not allow the time, nor the medical colleges the compensation, necessary

for this important work. It is gratifying to know that there is every prospect of a marked improvement in matters of this kind, and that in a few years the students attending our medical colleges will have, under the direction of a skilled alienist, an opportunity of making a careful and scientific clinical study of persons suffering from mental disease. In twenty years from now, or it may be sooner, the general practitioner will have a very much better knowledge of mental disease than is possessed by persons engaged in similar practice at the present time. But we must not wait twenty years with the expectation that matters will improve. The problem is a live one to-day and it becomes our duty to do what we can towards its solution and as soon as possible.

As an illustration of the correctness of the statement which I have just made I will refer briefly to a case that came to me for assistance some years ago, when I was in general practice. This patient, a male, after receiving treatment at the hands of several physicians in the locality in which he resided, informed me that not one of the doctors whom he had consulted appeared to have the slightest conception of what his trouble was, and stated that he had taken gallons of medicine, all to no purpose. He appeared to be normally a strong, vigorous, well nourished man, always active and energetic, yet at the time of his visit he was not able to do any work whatever, complained of fugitive pains in different regions of the body, and was very much depressed. After making a careful examination I could not discover any trace of physical disease. He still insisted that various organs of his body were affected and appar-

ently had little confidence in my judgment or in the skill of the physicians from whom he had received treatment for some time with very unsatisfactory results. I was certainly unable to help him at the time. Many of you no doubt remember the answer of the medical student who, when undergoing an examination, was asked by the professor what he would do if a patient suffering from certain named symptoms applied to him for treatment. After some little consideration the student, who must have been something of a diplomat, stated that such a case was altogether too serious for a physician of his limited experience and replied with an air of confidence "I would send him to you, sir." Believing that this patient might be suffering from some serious disease which I was unable to detect, I advised him to consult a specialist in Toronto and gave him the necessary letters of introduction. He returned in a few days without having lost a single pain or ache nor a single cause for complaint. I received a letter by mail stating that the man was suffering from nervousness and that the enclosed prescription would likely prove helpful. The patient however refused to take the medicine and it pained me deeply to hear him express his opinion of the professor in which I had unbounded confidence.

At this time a friend of mine who had had some experience in a hospital for the insane arrived on the scene and advised me to place my patient in a private ward in a general hospital and give him hot packs twice a day followed by a brisk rubbing in cold salt water every night and to stop all drugs of all kinds except purgatives when required. He further advised me to put him on a

light nutritious diet and if possible to secure a nurse who would be able to take complete control of the case. As a result of this line of treatment my patient began to improve and in a short time he had regained his normal mentality and was able to resume his ordinary occupation. I am now quite sure that this man was on the border line of insanity and that if I persisted in following the instructions issued by the worthy professor, my patient would soon be in a serious condition, from which recovery would be, to say the least, tedious. I mention this case to show how it was possible for a patient to receive treatment for some time from a number of really excellent physicians and from a distinguished professor, not one of whom appeared to understand his condition; and also to show how quickly a physician experienced in the treatment of the insane diagnosed the case correctly and at once prescribed a suitable line of treatment. The different physicians consulted had no hesitation in stating that this patient was suffering from nervousness which no doubt was true, but they failed to detect or properly estimate the symptoms of mental perversion present. Instead of dealing with a neurosis they had to deal with a neuropsychosis in which the mental disease predominated.

It is not unusual in making a careful clinical study of patients admitted to a hospital for the insane to discover that plain clear symptoms of mental alienation were evident for a considerable time, often for years, before either friends or physician appeared to recognise that the case was serious. Too often unfortunately, slight mental defects are looked upon as trivial, and the apparently harmless eccentricities of a neighbor

are the cause of much merriment to his friends. This lack of appreciation on the part of the general public means that valuable time is lost before a physician is consulted, and frequently when medical aid is invoked the treatment is not appropriate. I hardly think that many persons will dispute the correctness of this statement. The evil exists and unless some effort is made to find a remedy it will surely remain.

At the present time a laudable effort is being made to stamp out tuberculosis. Many of the greatest minds in the medical profession and outside of it are engaged in directing the attention of the public to the many things that may be done to combat this foul and life destroying disease. The good results of this campaign are already quite noticeable and there is no doubt that this disease will in the course of time be almost eradicated if the public will continue to cooperate with those who are engaged in this work. In my opinion, however, the evil effects of insanity are much greater and more far reaching than those resulting from the great white plague, and it is the duty of every person, no matter what his profession or occupation may be, to endeavour to lessen the numbers in that hopeless procession that are yearly making application for admission to our hospitals for the insane.

I need not dwell on the distress caused in every community as a result of insanity. We all know that the saddest chapters in the domestic history of any people are associated with mental alienation. Amongst the results we find homicide, suicide, jealousy, destruction of domestic felicity, dissipation of wealth, with consequent financial distress for those who remain and whose mental condi-

tion may be such that they can ill bear the prolonged anxiety caused by the detention of relatives in hospitals for the insane. All this is well known to everyone, but up to the present time no properly organized effort has been made to check the ravages of this disease.

It is true that a considerable number of patients are apparently restored to health after being under restraint and treatment for a longer or shorter period, but the great majority are admitted at a time when they are beyond medical aid. Krapelin states that only a comparatively small percentage are permanently and completely cured in the strictest sense of the word. If we read the annual reports of our hospitals for the insane we will find that about thirty per cent. of cases admitted during any one year are discharged cured, but it is an undoubted fact that a large proportion of these cured cases return again for treatment sooner or later, and that many others who remain at home show symptoms of mental reduction.

Perhaps the most striking fact deduced from hospital statistics is that nearly all permanent cures occur in patients admitted to hospitals while in the early stages of the disease. This fact alone accentuates the importance of physicians being able to recognise and appreciate the earliest signs of mental alienation.

But if little can be accomplished in the way of curing insanity something can be done by each of us in the way of preventing it, and while the field in which we labour effectively is somewhat circumscribed, yet we should do what we can to preserve mental personality of our fellow beings. We may take it for granted that the general public are willing to

assist, but we cannot expect such assistance until the whole subject is placed before them in an intelligent manner. We must in the first place endeavour to destroy the false conception of insanity which exists in the minds of many people at the present time. We must explain that insanity is a disease, often preventable, and wholly devoid of disgrace or stigma of any kind. We must lay stress on the fact that it is their duty to call in a physician as soon as their friends show even the slightest signs of mental aberration. But how can we accomplish all this? The task is not an easy one, but I believe if we would invoke the earnest and intelligent assistance of every physician, clergyman and teacher in the community much might be accomplished. I would ask the state to have prepared for free distribution amongst all school children a work suitable in character and dealing with the matter of the prevention of insanity, and I would make it obligatory on the part of our public and high school teachers to devote a certain time to discussing and explaining all matters contained therein. These text books should be prepared by an experienced alienist and should contain a plain statement of important facts not coloured to suit the unscientific views of any section of the community.

A course of lectures on the nature and prevention of insanity should be delivered in every university or college in the country. The graduates of our universities exercise a beneficial and important influence on the community in which they reside, and if properly instructed in this subject could no doubt accomplish much good. Clergymen should also be encouraged to devote some attention to

the study of mental disease so as to be able to advise the people intelligently when consulted.

The great power of the press, too, should be utilized in carrying on this work. Some of our more progressive journals send out special commissioners to study and report on economic questions all the way from pulp wood to public utilities. How I wish that some of these bright minds would some day undertake to enlighten the public on matters pertaining to insanity after having made a careful study of the subject! How helpful it would be if once a week or once a month an article appeared explaining in a scientific manner the true nature of insanity and the means that might be adopted to lessen the frequency of this great affliction! If this suggestion were adopted we would no longer be obliged to read editorials on the care of the insane written by men who had no personal knowledge of the subject, nor would we be discouraged in our efforts to introduce the hospital spirit into our institutions for the insane by having them referred to in the public press as mad houses, simply because persons using such terms are not familiar with existing conditions.

But after all the great responsibility of preventing insanity rests on the general practitioner. The responsibility is his and cannot be placed on the shoulders of others. He has a wonderful influence over the people, and his advice and instructions are followed with implicit confidence. How important it is that his advice should be reliable and proffered in good time. In the first place he should see that he is properly equipped to perform this important work and at least a portion of his time should be devoted to the study of in-

sanity. He should add to his library a few of the best works on psychiatry and should be as familiar with these subjects as he is with the other branches of medicine and surgery. It is not necessary to make a special study of the subject, as there are a number of practical works published that would prove very helpful to the physician in general practice. In addition to this course of reading I would strongly advise that every practitioner spend a week or two when convenient in a hospital for the insane. There, with the assistance of the physician in charge, he would have an opportunity of personally examining patients and at the same time becoming familiar with the more important principles of treatment. Arrangements could be made if necessary by which a series of clinics could be held covering a whole week, at which each of the different types of insanity could be presented. Such time would be well spent and I am sure that physicians in general practice would be welcomed by those in charge of such institutions.

Now if all this were accomplished and if the public had a truer conception of insanity and a further and truer understanding of their responsibility, and if the general practitioner were better qualified to instruct, advise and treat his patients, how much good might be accomplished. In the brief time at my disposal I cannot do more than refer to a few causes of insanity that are to some extent controllable.

At the present time in the Province of Ontario, one thousand patients are admitted to our hospitals for the insane annually, and of these cases at least ten per cent. are caused directly by an excessive use of alcohol. Some

authorities claim that the percentage is very much higher than this, but I prefer to be conservative, more especially as ten per cent. is a sufficiently large proportion to merit our careful consideration. What a blessing if one hundred patients could be protected each year from such a hopeless disease as insanity, and what a saving to the state! How impossible it is to measure the unhappiness and misery that might be averted if this could be accomplished! It is true that all cases of insanity that arise from this cause are not preventable, but when you realize that a large proportion of alcoholic psychoses occur amongst the brightest and most intelligent in the land, one cannot help thinking that many of such cases could be prevented if the dangers of dissipation were pointed out before intemperate habits became firmly fixed.

Then again we must not overlook the hereditary effects of alcohol. It is a scientific fact that the children of alcoholic parents are prone to such diseases as epilepsy, chorea, and various forms of insanity. Unfortunately the evil effects of alcohol remain long after the offender has passed away, and while it is impossible to say just how much of the insanity of the present day is indirectly produced by this cause, yet most authorities agree that the proportion is very considerable.

There is no doubt that much could be accomplished in the way of preventing insanity arising from this cause, not only by proper instruction and advice, but also in taking an active part in the movement to lessen the number of places in which alcoholic beverages may be procured. There are hundreds of hotels, especially in the small villages and towns,

that have no moral right to exist. If the proprietors of such places are entitled to compensation then they should receive it at once, but neither the state nor the municipality should stamp with their approval any business that is depending for its success, very largely, on the frailties of our fellow beings.

It is also a fact recognized by alienists that many young people break down mentally because of their environment. How often we find young students collapsing during a college course while preparing for a profession for which they are unsuited. The brilliancy of adolescence is often an indication of a defective mentality, and parents should be guided by their physicians in the matter of selecting a suitable occupation or profession for their children. Then again there should be some medical supervision of marriage. The mental defects of persons who have attained a marriageable age are generally well known to the family physician, and he should endeavour to prevent anything that would promote the propagation of families which would in all probability perpetuate the conditions that are so much to be deplored. It often happens that one of the contracting parties has no knowledge of the mental instability of the other, and in my opinion everything possible should be done to prevent such a cruel deception. I realise how difficult it may be for the family physician to interfere in such matters, yet if the parents of the afflicted person were warned of the evil effects that follow such marriages many of them might be prevented.

There are in every municipality a number of individuals who appear to be composed of a strange mixture of good and evil. Such persons exhibit

many manifestations of brilliancy, and at the same time show a marvellous lack of judgment and common sense. These persons are always a danger to the community, as one cannot tell when they may cross the border line and commit a most unexpected crime. How important that such persons should be kept under supervision and placed under treatment before their actions shock not only their friends, but the country.

We often find too, especially in rural communities, that feeble minded members of a family continue to live in a condition of public scandal. Children are born and brought up with no idea of right or wrong and with very little conception of even common decency. These people associate very largely with others in their own class, with the result that early and ill-advised marriages are contracted which can only result in the propagation of endless numbers of defectives. I believe that if many of these people were removed from their unsatisfactory environment considerable development might follow in their altered surroundings, and it is possible they would attain a much higher standing of mentality. At all events they would be thrown more in contact with a better class of people and would certainly profit to some extent from the example set by those around them.

But you will say that even if the general practitioner is quite prepared to recognise and properly treat cases of incipient mental disease he is hampered because of lack of facilities. This unfortunately is true, because it is a recognised fact that in most cases it is necessary that the patient should be separated from his friends and a complete change effected in his environment. At the same time the patient must be as much under the

control and direction of his physician as if he were suffering from a contagious disease. A hospital for the insane is not a desirable place for these border cases. Some other place should be provided where the patient would be under complete control without the necessity of completing the certificates of insanity. It is a serious matter to deprive a patient of the legal right to administer his own affairs, and such a plan should not be resorted to except in extreme cases. At the present time private institutions provide an excellent place for those who are able to pay, but no provision is made for the poor. There are very few counties in the province that are not provided with one or more well conducted general hospitals, and as time goes on the number of such institutions will largely increase. It seems to me that the government of the province, which already contributes towards the maintenance of non-pay patients in general hospitals, should insist that each of these institutions provide a certain amount of bright and cheerful accommodation suitable for the reception of incipient cases of insanity occurring in patients who are not able to pay private institution rates. Special cells or strong rooms are not needed. Everything should be bright and cheerful and such patients should be placed in charge of nurses who have received special training in a hospital for the insane. I believe that psychotherapy plays an important part in the treatment of these cases and a well-directed and intelligent nurse must exercise a very beneficial influence over her patients.

As you know the state spends a large sum each year in maintaining a very large number of insane persons who are incurable. It has been

estimated that the care of an insane person costs on an average about \$4000.00. If for a smaller sum one of these cases of insanity could be prevented, would not this expenditure be justifiable? As a matter of economy, then, I would suggest that a portion of the cost of maintaining such patients under the conditions I have suggested, should be borne by the state.

I am also of the opinion that the treatment of these cases should be as far as possible placed in the hands of one physician to be appointed and paid by the state according to the amount of work he performs. The general practitioner would not likely complain if such an arrangement were made, as the management of these border line cases means a great deal of worry and annoyance for all of which the attending physician is very poorly paid. Great care should be exercised in selecting a suitable physician to perform this work, and he should be obliged to spend some time in a hospital for the insane or in a private sanatorium in order to become familiar with the modern principles of treatment. As a result of his experience he would soon be able to treat his patients in a very satisfactory manner and the progress of the disease in many cases would be ar-

rested, and there would be fewer admissions to our hospitals for the insane. In recommending that the state should bear a part of the cost of maintaining those border line cases, I am quite aware that at the present time the tendency is to have general hospitals supported by the municipalities or by special donations. I am inclined to think, however, that the matter of appointing a physician to look after these cases cannot very well be left in the hands of the municipality. The position must be permanent and independent of municipal issues.

In conclusion I may say that I am quite conscious of the fact that I have not considered this subject in detail. Many of the matters I have referred to are of sufficient importance to merit a special paper dealing with that subject alone. I believe that the suggestions I have made, would, if carried out be helpful. To some of you they may seem impossible. However I may say that if anything better is suggested it will have my earnest support. I am more concerned with the improvement of present conditions than I am with the carrying out of my own special ideas. I wish to draw your attention to the subject with the fullest confidence that good may result from our combined efforts.



TREATMENT OF TRIFACIAL NEURALGIA.

By D. A. SHIRRES, M. D.,

Montreal.

(Read before the meeting of the Canadian Medical Association, Ottawa, June, 1908.)

MY name is on the programme for a paper on "Hysterical Manifestations occurring after the removal of a Brain Tumour," but I have decided to take up another subject which will, I think, be of more interest to physicians at large, and that is "The Treatment of Trifacial Neuralgia" by means of deep injections of alcohol.

To dwell on the atrocious pain of trifacial neuralgia, tic douloureux, and emphasize the chronicity of the disease, were a work of superogation. To rehearse the uncertainties and failures of the several forms of medical treatment and detail the difficulties and dangers of the operation for radical cure, were to repeat familiar history. In my experience in Montreal, we have met with no success with gasserectomy, and the mortality has been great. Neurectomy I have carried out with quite a number of patients, but with only temporary relief. Medication has also given like results in only a few cases. Galvanism and high frequency has in two cases succeeded after drugs have failed.

The deep injection of alcohol has, without exception, given more or less instantaneous relief, some operations having been performed several months ago and satisfactory results are still present. Though my cases have been limited in number, I yet felt that I should bring notice of my results before the Association, to let you know what I had been able to obtain, and also to learn, in discus-

sion, what my confreres have attained.

I have no intention of going into the history of this treatment, but simply to mention the work of the early experimenters, Levy, Baudouin, Schlosser and Ostwalt. On this continent Dr. Hugh T. Patrick reports sixteen cases, all but one with very good results. Dr. Dorsay Hecht also publishes an article in the *Journal of the American Medical Association* on the same treatment.

Two routes by which to reach the foramina have been chosen for the deep injection, designated intrabuccal and extrabuccal. The former is described by Ostwalt, and the latter by Schlosser, Levy, Baudouin, Patrick and Hecht. With my cases the extrabuccal alone has been used, and that method I shall describe.

The aim is to reach the inferior maxillary branch of the fifth nerve just after its exit from the foramen ovale, the superior maxillary branch just after its exit from the foramen rotunda, and the first or supraorbital branch immediately after its entrance into the orbit, and to place an injection of alcohol at this point within the nerve sheath if possible. The instrument employed is a straight needle 1.5 mm. in diameter and 10 c. m. long, fitted with a stylet exactly like a trocar, except that in this case the needle is sharp and the stylet blunt. The needle is marked in centimetres from the point up to 5, so that the operator may know what depth he has reached. In making the

operation the stylet is at first slightly withdrawn and the puncture made with the sharp point of the needle. After the point is well through the skin and sub-cutaneous tissue the stylet is pushed home. In this position its end is flush with the needle point, making a blunt instrument for the remainder of the puncture—this is to avoid injury to deep blood vessels. Having reached the proper depth, the stylet is withdrawn, the syringe (already filled), is fitted to the needle and the injection is slowly made. The solution first used is 75 per cent. alcohol, containing a little chloroform and a little cocain:—

Cocain Hydrochlorate 1 gr.
 Chloroform 10 m.
 Alcohol 3 dr.
 Distilled water sufficient to
 make $\frac{1}{2}$ oz.

Of this we inject 2 c.c. For succeeding injections the proportion of alcohol is increased, so that, if several are needed for the same branch, the strength of the solution reaches about 90 per cent. For the strongest solution double the amount of cocain, as it is more painful. The injection once made, the pain is astonishingly slight. Ordinarily there is only a rather uncomfortable sense of pressure or tension, sometimes some diffuse headache, which may last a day or two, but no real suffering.

For reaching the different branches of the nerve the procedure is as follows:—

For the inferior branch the needle is inserted at the lower border of the zygoma 2.5 cm. in front of the descending root of the zygoma, which always can be felt, and almost coincides with the anterior bony border of the external auditory meatus. The needle is directed slightly upwards so as to hug the base of the skull, and a

little backward, and at a depth of 4 cm. should reach the nerve at its exit from the cranium.

To attain the middle branch, the line of the posterior border of the ascending (orbital) process of the malar bone (ascending to articulate with the frontal) is prolonged to the lower border of the zygoma and the needle inserted 5 cm. posterior to this point. It is directed vertically to the antero-posterior line, but inclined slightly upward in a direction which would attain, at the depth of the foramen rotundum, the level of the inferior extremity of the nasal bones. At a depth of 5 cm. the nerve is reached at its emergence from the foramen rotundum into the pterygomaxillary fossa.

Levy and Baudouin advise reaching the supraorbital branch by inserting the needle at the external margin of the orbit opposite the frontomalar articulation (suture), passing it along the external orbital wall to a depth of 3.5 to 4 cm., when the point should reach the nerve.

In discussing any new treatment, the questions to be answered relating to its various results and difficulties should be considered, and as my time is short, I shall just mention certain points, but shall not go into details.

UNCERTAINTIES.—It requires little experience or reflection to realise that no one can uniformly touch with a needle a given point two inches below the surface. To this physiological or mechanical uncertainty of accuracy is added, in the present procedure, the uncertainty of cranial and facial variations.

DIFFICULTIES. — These are not great. Given a reasonably accurate knowledge of the anatomy of the parts concerned, a good idea of the

relative topography, and the proper instrument, I think any physician can do this little operation. The real difficulty is the difficulty of accuracy, the difficulty of striking the nerve.

DANGERS—Infection. Serious hæmorrhage. Intraorbital injection of the first division is considered hazardous on account of the proximity of the motor nerves to the eye muscles. Even in the middle branch it is possible to inject into the orbit. This Patrick did, but with no serious results.

THERAPEUTIC RESULTS. — These have been most gratifying. It is not to be expected that injections of alcohol will accomplish a radical cure. Indeed, we know from the reports of Schlosser that recurrence is the rule. Then the injection may be repeated.

A question that has been frequently asked of me is:—"How many injections are necessary for relief?" This

depends entirely on the accuracy with which the alcohol is placed. I believe that a single injection within the nerve sheath will stop the pain at once. A number of trials may be necessary before this can be accomplished. A second injection can be given within a period of twenty-four hours without unpleasant consequences. Where there is no hurry it is better to wait five or seven days. There is always some reaction, and it is sometimes advisable to allow this to subside. When the alcohol is injected near the nerve it undoubtedly diffuses sufficiently to reach it. In such cases relief comes after some minutes or hours, and does not last long, consequently it is wise to continue the injections, even if the patient is having no pain, until the characteristic sensory phenomena announce marked action on the nerve.



THE HISTORY OF TWO LARGE ABDOMINAL TUMOURS, WITH REMARKS.

By A. B. ATHERTON, M. D., LL. D.,

Fredericton, N. B.

(Read before the meeting of the Canadian Medical Association, Ottawa, June, 1908.)

CASE 1.—February, 1st, 1904, E. S., age 60, single. Always healthy till about fifteen years ago, when she noticed a tumour in the abdomen. Three years subsequently she saw a surgeon of a large Boston hospital who advised her to let it alone, telling her that it might never give her any serious trouble. Until I saw her she did not consult anyone else, although the belly continued to increase steadily in size, while she became more and more emaciated.

On examination I found her abdominal measurement to be forty-eight inches. A large somewhat irregular tumour was felt filling the abdomen. In parts it distinctly fluctuated. Per vaginam, the cervix occupied a central position and tumour could not be easily reached.

Operation was urged, and on February 9th, with the assistance of Drs. Mullin and McGrath, I removed a large multilocular ovarian tumour together with a fibroid uterus about five inches in diameter. The larger cysts of the former were first tapped, and the incision required to get the tumours out reached from the pubes to two inches above the navel. The adhesions were few and the pedicle of the ovarian tumour and the uterine stump were treated in the usual way. Through and through silk-worm gut sutures were used to close the abdominal wound.

On examination I found two of the larger cysts of the ovarian tumour lined with papillomata. The poster-

ior part of the tumour where its pressed against the spine and adjoining wall was white, thickened and sodden, easily rupturing on handling.

FEBRUARY 10TH.—Slept nine hours without an opiate. Had been wakeful the night before through dread of the operation.

FEBRUARY 16TH.—Has done remarkably well, the highest evening temperature being under 100°. Sutures all out to-day.

MARCH 3RD.—Left hospital, being twenty-two days after operation, weighing ninety-four pounds; at entrance her weight was one hundred and fifty-three and one-half pounds.

She gradually took on flesh, and in six months was the picture of health, and weighed one hundred and twenty-five pounds. She continued well until last summer when she began to feel a soreness and stinging pains in the lower end of the abdominal scar, and noticed a small lump there. These symptoms growing worse, I was asked to see her in December. I found her looking well, but an examination revealed a thickened, brawny condition of the wrinkled skin about the scar with some redness over and around the tumour, which felt hard and was about the size of a hickory-nut. It lay mostly between the skin and peritoneum, involving to a slight extent the scar tissue in the former.

On December 11th, I removed, by an elliptical incision, with the long axis horizontal and six inches in length, a portion of skin three and a half inches wide, including the tu-

mour and neighboring subcutaneous tissues. As the tumour lay close down to the peritoneum, I took away a piece of that membrane, one and one-half by two inches. The general peritoneal cavity was quite free from any papillomata, and looked perfectly healthy.

I united the cut edges of the peritoneum and aponeurosis, which firmly adhered to it as one membrane, with chromic gut sutures, making the line of union transverse. The skin was sutured with silk-worm gut.

On examining the tumour I found it inseparably joined with the surrounding tissues, and on incision it resembled very closely both in colour, hardness and appearance, the cut surface of a scirrhus cancer of the breast.

The parts healed well and she was able to leave the hospital on January 4th. I have recently examined her and found no sign of return of the growth.

CASE II.—Mrs. P. W., age 65, multipara. When about thirty-five years of age first noticed a "lump" in her abdomen. The menopause occurred at forty-five and was preceded by an increased flow for several months. During these thirty years since the appearance of the tumour she has done the work of a poor farmer's wife, and has not suffered much pain until the year preceding operation. At one time during the year she was obliged to keep her bed for about two weeks because of abdominal pain. For the months following this attack she continued to feel much soreness, and this finally led her to seek relief.

On October 1st, 1906, I examined her. She was much emaciated and had been so for years. The legs swell considerably towards night. She weighs 131 pounds. Her girth is

forty and one-half inches. The abdomen is occupied by a hard firm tumour, whose long diameter runs from above on the right side diagonally across to the left groin, and measures twenty inches. In the opposite direction it measures seventeen inches. It is somewhat irregular and on its surface is felt small areas of stony hardness. Per vaginam cervix is found in usual position, and uterus and tumour seem to move together.

OCTOBER 2ND.—Operation. Assistants, Drs. Mullin and McGrath. Incision from ensiform cartilage to the pubes. I found numerous adhesions, some of which were very thick and broad. These were clamped and ligatured. On raising out the tumour the pedicle was seen to consist of the elongated body and cervix uteri. This was clamped and cut. Catgut and silk ligatures used to control bleeding. A continuous catgut suture applied as usual to the broad ligaments. The abdominal wound was closed with through and through sutures of silk-worm gut.

The operation lasted two hours. Patient's condition fair at its close.

On examination of tumour numerous nodules of calcareous matter were found on its surface, which accounted for the stony feel on palpation before opening her. On cutting into the mass many small cysts ranging from a quarter to half an inch in diameter and containing serous fluid were seen, and near its centre was found a large cavity containing about a quart of dark fluid blood and about two quarts of clotted blood adhering firmly to its lining walls and infiltrated everywhere with calcareous matter.

With the exception of the discharge of a quantity of dark bloody fluid followed by some suppuration,

two weeks after the operation, the patient did well, and was able to leave hospital on November 19th, her weight being ninety-one pounds, just forty pounds less than before operation.

About a week afterwards she was seized with severe colicky pains followed by vomiting and accompanied by visible, distended coils of bowel. These not being relieved by enemas, I had her taken once more to hospital and opened the abdomen. Several somewhat recent adhesions were found between distended coils of small intestine, which were ligatured and divided.

The obstructive symptoms then subsided and she left the hospital in about three weeks, and has continued well up to the present.

Remarks.—In addition to the successful results in these two somewhat aged females after each undergoing two abdominal sections, I would like to call attention to a few points in connection with them.

In the first place it seems somewhat remarkable that the first patient should have developed three neoplasms, namely, the ovarian cyst, the fibroid of uterus, and the growth in the abdominal wall.

It may of course be that the tumour in the abdominal scar arose from the inoculation of some of the cells from the papillomata of the ovarian tumour at the time of its removal, but the interval of more than three years which elapsed after the first operation before any symptoms of the appearance of trouble in the scar seems to contraindicate such an inference. Besides, the peritoneum itself, which must have been subjected to the same risk of infection as the abdominal wound, remained quite sound and healthy.

For a long time I have thought that we were too ready to accept the opinion that, in every case of recurrence of cancer in the site of one which has been excised, this is due to the fact that some germs have escaped the surgeon's knife, and have lain dormant for an indefinite time, and then all at once started up into new life and activity.

While this is undoubtedly true in most instances, yet it seems to me that, in a goodly number of the cases where no sign of recurrence takes place for several years, the reappearance of the disease *in loco* is more likely due to the tendency which still exists to such growths in certain individuals, and to the well-known fact that any point of irritation or the site of a former injury is more apt to become the seat of a malignant growth than other parts. The case above reported may be a proof of this latter fact, and if so, why should it be unreasonable to suppose that a cancerous growth should arise *de novo* in the cicatricial tissues left after the removal of a similar neoplasm, rather than from some hidden cells which have been missed at the time of operation? Again, may it not be that in certain persons cancer is apt to select one particular spot for its manifestation, and having chosen this, is it not more likely to again show itself here after removal than in some other locality?

In support of these views let me mention a few cases which have come under my own observation. Some twenty-five years ago I removed an epithelioma of the lip in a man aged thirty-five. Seven years afterwards another was excised in the same locality. In about eight years still another. He has now remained free from the trouble for nine years, and has now, we hope out-

lived the tendency to the disease.

About eighteen years ago I removed a cancer of the tongue, with the lymphatic glands on one side of neck. The patient remained well for eight years, and then after a fall through a hatch-way in which the neck was struck violently against the side of the opening, a fresh growth occurred and ended fatally.

Again, I once removed one side of the upper jaw for a malignant growth, and five years afterwards the man died with symptoms of cancer of the stomach. Another died with similar symptoms ten years after I removed an epithelioma of the lips. In another case where I did this operation, the man nine years subsequently became gradually more and more emaciated and jaundiced with but little pain up to the time of death; this, in all probability, indicating pressure from a malignant tumour on the bile ducts. Still another who some years after the menopause began to have a bloody serous discharge, and who exhibited a small indurated ulcer of the cervix, had the

disease removed within two months from the appearance of symptoms, but ten years afterwards became affected with cancer of the breast to which she succumbed.

In these last four cases why might not a fresh growth have appeared in the original site of the disease as well as where it did, without its being considered due to some relic of the former growth?

In the second case reported the size of the fibroid is somewhat remarkable. In it we also have one more instance in which a tumour of this kind does not diminish after the menopause. I have removed three other fibroids weighing from forty to sixty pounds, and the ages of the females in two of them were fifty-two and fifty-seven years respectively. What struck me as most remarkable in this case, however, was the large clot of blood in the centre of the tumour, undergoing calcareous change. I never saw this before and do not recollect reading of such an instance. I therefore consider it worthy, of record.



PROCIDENTIA UTERI.

By *FREDERICK WILLIAM JOHNSON, M. D.,*
Boston, Mass.

(Read before the meeting of the Maritime Medical Association, Halifax, July 1st, 1908.)

PROCIDENTIA uteri is fortunately much less common than a few years ago, because the woman gets better care during confinement, and if laceration of the cervix or vagina, or rupture of perineum take place the injury is repaired at once, or she is told that it exists and is advised to have it attended to before she gets about, and thus the first steps towards prolapsus are prevented.

Nowadays, after labour, every woman is examined before she is allowed to get on her feet and go about, and, if the uterus is found large and heavy or retro-displaced, means are at once taken to remedy the abnormal condition, and thus she is usually saved from future discomfort and disability.

Some years ago I saw an old lady, seventy-five years of age, who had procidentia, lacerated cervix, ruptured perineum with a rectal tear three inches in length, and a vesico-vaginal fistula through which the bladder had turned inside out. The ureteral openings, from which urine was coming drop by drop, could distinctly be seen on the anterior surface of the procidentia. She had been in this condition over twenty years and had never during that time sought relief. How she stood it was a mystery to me.

Procidentia, as a rule, takes place slowly. Sudden procidentia does occur, but it is a rare thing. I have seen one case and know of one other. Both were in unmarried women who had never had children. In my case the procidentia occurred on attempt-

ing to move a grand piano; in the other case it followed lifting a heavy weight.

In the cases which most of us have had the opportunity of watching from beginning to end, the downward displacement has been gradual. The time occupied until there is procidentia varies from months to years.

The changes which take place in the pelvis and uterine supports during the progressive steps to procidentia are usually the same in all cases. But the order in which they appear differs accordingly as the descent is due to a heavy uterus, too heavy to be kept up by its natural supports, or to the loss of retentive power of the pelvic floor which allows of prolapse of vagina, bladder and part of rectum, and then procidentia soon occurs. Sometimes you have both orders working at the same time, a heavy uterus with or without defective supports or loss of retentive power of the pelvis floor.

The supports stretch out from imperfect involution, following labour, or the stretching is produced by a heavy uterus, or by pressure from above on a retro-displaced uterus by lifting, stooping or straining during defæcation when constipation exists. There is also loss of areolar tissue, and the fascia has lost its strength and elasticity. Prolapse of the anterior and posterior vaginal walls with the bladder interferes with the venous circulation and hyperæmia soon follows.

If the perineum is not ruptured the muscles soon become over distended and the vulva enlarged.

Procidentia may occur when there has been submucous rupture of the fascia or pelvic floor, the vaginal walls with the bladder sliding down, as it were, on the fascia beneath. In old women with impaired nutrition, procidentia sometimes occurs. Atrophy takes place in the vaginal walls and the uterine supports, and thus prolapse begins.

In such cases a tendency to prolapse of the rectum and urethra exists.

Constipation with its attendant straining is almost always present.

Various mechanical devices have been invented for the relief of this most distressing condition.

Their multiplicity is the strongest argument against their efficacy.

When the outlet is small, an oval doughnut shaped pessary, made of inflated rubber, or solid rubber, or solid wood, will, for a time, keep up the vaginal walls, bladder and uterus, but by pressure it soon stretches out the vagina at the seat of contact and then one of larger size must be inserted. Finally the lower vagina becomes so stretched that the patient is no longer able to wear one large enough to keep up the parts above.

Some vaginas will not tolerate at all a pessary of this kind. So in the end we are where we were at the start.

Once in a while you will find a patient who can wear and get perfect relief for years by using a stem pessary with external straps that can be tightened or loosened to suit the necessities, but sooner or later, as senile atrophy of the vault of the vagina takes place, the cup which fits over the cervix begins to cut into the vagina and the pessary must be discarded.

Certainly in nine cases out of ten operative interference must be em-

ployed to give the patient permanent relief.

The old and classical method for operation was as follows:—Curette the uterus to remove all hyperplastic tissue and repair the lacerated cervix, repair the perineum by a colpoperineorrhaphy after Emmet's method, then do an anterior colporrhaphy which takes in the slack of the anterior wall and throws the cervix well back into the hollow of the sacrum.

In a few cases when the patient's social condition is such that she is able to take good care of herself and not do manual labour or be on her feet very much, relief is obtained. But these are the cases where procidentia is not so likely to occur.

During the past twenty years I have tried faithfully pessaries of all kinds and descriptions, and the various operations which have been devised for the relief of this condition.

During these twenty years I have had material from two hospitals and part of the time from a third.

Most cases of procidentia apply for relief at, about, or after the menopause. It will usually be found that the uterine body is small, with an enlarged or hypertrophied cervix. Often the body is no larger than a small fig and not much thicker at the fundus.

This small organ has little to do with the prolapse of the posterior and anterior vaginal walls (with the bladder), which are much thickened, and the colour of skin if they have been outside the body for any length of time.

Usually the much hypertrophied walls seem to slide down on the fascia and tissues beneath, and pull out with them the small uterus, bladder and anterior rectal wall. Do not ever remove that uterus for it is by the fixation of it in some way that you

hope to keep up the vaginal walls, with the bladder, after doing the necessary plastic work.

I fully admit nature probably never intended the uterus to be a fixed organ, but, alas! I see of no other way out of the dilemma in attempting to cure procidentia.

Of course the uterus should not be fixed if pregnancy is going to occur. Pregnancy, as we all know, is very apt to end disastrously for both mother and child where the uterus has been fixed.

Do not do an Alexander operation, or any of its modifications, which gives such gratifying results in uncomplicated retro-version and retro-flexion. For, by drawing the uterus towards the symphysis pubis, you foreshorten the anterior vaginal wall, thus bringing the parts down to a lower plane—just what you wish to avoid.

When the procidentia occurs during the child-bearing period, if the woman is thirty-eight or over, after explaining the matter thoroughly to her, I resect both Fallopian tubes from the uterine horns, cut off one inch, and bury the distal ends in the broad ligament. I leave her both ovaries if they are healthy so that she may menstruate until the menopause occurs naturally.

If on the other hand, she wishes pregnancy to occur, after doing the vaginal work I simply suspend the uterus, giving her to thoroughly understand that the procidentia is very likely to return again at some future time, and if she has a child it will most surely return very soon after delivery.

In one case I was foolish enough to take the woman's word that she would never again become pregnant, and fixed the uterus. In less than a year and a half she had another baby. The labour was normal and the ut-

erus is still fixed to the anterior abdominal wall.

I have operated on seventy-five cases of procidentia according to the method described below.

Of course we well know that all of our chickens do not come home to roost, but I know of but one case where the uterus stretched away from the anterior abdominal wall, coming again to the vulva.

It was in an old lady seventy-five years of age. She submitted to a second operation and the uterus has given her no discomfort for over three years.

In three cases there has been sufficient prolapse of the anterior and posterior vaginal walls to again require interference for the sake of comfort.

The youngest patient was thirty-one, and the oldest seventy-five. Four cases had existed but one year, and one was of over twenty years duration.

Most of them had given birth to several children, one to thirteen.

The average duration of the procidentia at the time of seeking relief was seven to eight years.

OPERATION.—The cervix if elongated or hypertrophied is amputated. Emmet's operation is employed as I consider it near and far the best operation.

In cervical elongations, hypertrophies and old lacerations of the cervix, where amputation is called for, this operation does not interfere with the occurrence of pregnancy or labour.

The uterus is then carefully curetted. If of any size quite a little hyperplastic tissue will be found.

Then the usual operation for cystocele is done.

Colpoperineorrhaphy is then done, care being taken not to take up too much of the rectocele high up, as it

is necessary to leave a fair amount of slack to the posterior vaginal wall in order to permit the easy drawing up of the uterus preparatory to fixation.

The sutures in the cervix should be of absorbable material else great difficulty will be met in removing them.

The cervix can hardly be reached by an examining finger after the fixation.

I use No. 1. St. John Leavens chromicized resterilized catgut for the cervix, and silk-worm gut for the anterior wall and the colpoperineorrhaphy.

The abdomen is then opened.

Tubes and ovaries are left if healthy, and all adhesions in the pelvis are removed. The uterus is then grasped with a small pair of volsella, and drawn up so that the fundus is, if possible, about three fingers breadth below the umbilicus.

A long, curved, round pointed needle, by means of a leader, draws a strong strand of silk-worm gut through the fascia one and one half inches from the cut edge, through the underlying muscle and peritoneum, and takes a good deep bite of the uterus just at the junction of the cervix and body, then the needle goes through the peritoneum, muscle and fascia on the opposite side, coming out one and one-half inches from the cut edge of the fascia.

Another strand of strong silk-worm gut is passed in the same way deeply into the uterine tissue half way between the first stitch and the fundus uteri. Then the last stitch is passed like the other two, deeply into the uterine tissue just below the fundus uteri.

The peritoneum is all but closed from below upwards with a running stitch of iodized catgut, the muscle to the same point by interrupted stitches of iodized catgut which pick up, as they go along, the peritoneum, thus obliterating all dead space between muscle and peritoneum.

When the fascia has been closed up to where the other layers have been sutured, the uterus is drawn up by the volsella and held firmly while the three fixation sutures of silk-worm gut are tightly tied. Then the anterior surface of the uterus for its whole length is firmly held against the anterior parietal peritoneum.

When these three sutures are tied the volsella are removed and there is left but a small opening in peritoneum, muscle and fascia to be closed.

The skin is next approximated by iodized catgut, over the buried silk-worm gut sutures, and the dressing is put on.

A self-retaining catheter is left in the bladder for three days. This is done to prevent any strain on the sutures in the anterior vaginal wall by the bulging of the bladder.

Each day it is removed and boiled, and the bladder irrigated with a 4 per cent. solution of boracic acid.

No vaginal douches are given.

The patient is kept in recumbent position for twelve to fourteen days and then gradually allowed to get up.

At first she feels the pulling from the attached uterus, but soon this passes away to bother her no more.

If the wound heals by first intention the buried silk-worm gut gives no trouble.

HYPERÆMIA TREATMENT OF ACUTE AND CHRONIC SURGICAL AFFECTIONS.

By *MACY BROOKS, M. D.*

*Chief of Out-Patient Surgical Clinics of the University of Pennsylvania and Howard Hospitals;
Assistant Genito-Urinary Surgeon, Philadelphia Hospital.*

METHODS of producing hyperæmia as proposed by Bier may be divided into two classes, the active and the passive. The former is induced by such measures as massage, electricity, and especially by means of warm applications of heated air. The relief obtained from hyperæmia in both its active and passive forms is one of the most striking features of the method. Bier mentions in particular the benefit obtained in gonorrhœal rheumatism, and his claim in this respect I have frequently corroborated at the Philadelphia Hospital by relieving the exhausting pain of this affection in twenty-four to forty-eight hours by the application of a constricting bandage used twice daily, for two hours at a time. Aside from the rapid relief of pain the convalescence was materially shortened.

The relief of pain as suggested by Ritter's experiments is probably due to a serum infiltration anæsthesia. Bier believes the pain is relieved because its cause is combatted by the hyperæmia. Among the diseases which he states are benefited or cured by passive hyperæmia are various forms of chronic arthritis, the acute varieties of joint inflammation, and phlegmonous processes. Neuralgia, on the other hand, seems to respond more readily to active measures.

The arrest of an infectious process after hyperæmia and its rapid absorption can be attributed to either the death of the bacteria or at least to their attenuation, so that they are less active. In animal experimenta-

tion inoculation followed by hyperæmia resulted in a few deaths, the majority of the animals living, whilst control animals injected with the same bacteria in the same quantity, but not treated by hyperæmia, all died. These experiments apparently show conclusively the protective action of hyperæmic methods.

The serum obtained as a result of artificially produced œdema in an infected member possesses some bactericidal property which reduces the virulence of the micro-organism, and this property is not observed in the serum of a non-inflammatory part. The bactericidal power has been attributed to the presence of leucocytes in great number, faulty metabolic changes, increased alkalinity of the serum, and various other factors. It can be conclusively stated, however, that whatever the active agent may be, hyperæmia is certainly the factor which activates it and enables it to attack most quickly and satisfactorily the excitant of the inflammatory condition.

To successfully and scientifically use passive hyperæmia its dangers should be fully understood. There can be no doubt that many ineffective or disastrous results were due to faulty technique.

Abscess and pressure necrosis may result from too firm application of the constricting band, due, as suggested by Lesser, to the area of lessened resistance caused by pressure, thus providing an area of lessened resistance for the infection. This complication may be guarded against by judgment

in the application of the bandage, by changing its position, and by occasionally releasing the pressure.

Thrombophlebitis constitutes a distinct contraindication to both active hyperæmia produced by heated air and passive congestion. Several cases are reported in which death was apparently hastened or induced by the use of this method.

As to the method of application, to produce passive hyperæmia in an extremity, a Martin rubber bandage or a muslin bandage is employed, applied with sufficient firmness to compress the vein walls, while the arteries are either not affected or only to a slight extent. In using the muslin bandage four or five turns may be made; then the bandage is roped by twisting it several times during each turn. The amount of œdema is dependent on the degree of pressure. The subcutaneous veins first swell. The skin gradually becomes dark-red and in two or three hours it is universally blue-red and œdema begins to appear, the pressure in this instance being slight. There should be felt a pleasant warmth over the part. Cold œdema is to be avoided. After twenty hours the extremity constricted measures about two or three centimetres more than before the bandage was applied. When continuous pressure for a long period is applied, twenty hours or more, the position of the constricting bandage should be changed in order not to devitalize the underlying tissues. In case it is advisable to limit the congestion to the affected focus the distal portion of the extremity may be firmly bandaged, although this method has generally been dropped by Bier. If correctly applied pain or other uncomfortable sensation should not be experienced.

To produce congestion of the entire arm, a tubular bandage is placed around the shoulder, running from the axilla to the point of the shoulder and held in place by a bandage round the neck. It should not be applied longer than twelve hours. Venous stasis of the head is easily produced by a bandage placed about the neck, sufficiently firm to produce cyanosis of the face, and in severe affections edema; it should not cause any severe discomfort.

The use of dry cups or suction apparatus to produce hyperæmia is indicated in many portions of the body where the application of a bandage is obviously impossible. The suction is produced by means of an air pump, and numerous ingenious appliances are now devised for various portions of the body. The forms of apparatus employed by Bier are now being used in this country and can be easily secured from instrument makers. Those of glass are most satisfactory because of their cheapness and ease of cleansing, and more particularly because the enclosed member can be closely inspected during treatment. The air is pumped out without producing pain, and the degree of hyperæmia noticed through the glass, when sufficiently great, is maintained for several minutes, and then air is permitted to enter. This intermittent treatment, five-minute hyperemia and three minutes pause, may be continued for from thirty minutes to an hour.

Without going into detail concerning the use of these rather complicated apparatus, the question arises as to what results may be obtained by the practicing physician, what cases is he justified in treating, or must the method be relegated to hospital practice, where constant and careful watch can be kept on the patients?

For minor affections, such as furuncles, abscesses, and so forth, the suction cup composed of a bell glass and rubber bulb, an ordinary breast pump, or a test tube with the bottom broken out and a rubber ball fitted over the broken end for suction, may be used. In considerable experience with these minor affections I have found that great relief from pain is not only experienced but the disease is shortened, and the small incision to release pus as recommended by Bier has always been sufficient.

The intermittent treatment continued for thirty minutes to an hour daily, during the early stages of an infection, is usually sufficient. Abscesses and furuncles may be opened before fluctuation by small incisions. When the cup is first applied very dark blood is drawn out, then lighter blood, while later nothing but serum will be seen. On the following day the slough will be seen to be loosened, and it will usually be possible to withdraw it with a suction cup or to remove it with tissue forceps. The cavity then will be seen to be lined with healthy granulations. It should be syringed with hydrogen peroxide and bichloride and dressed with sterile gauze without drainage. If this treatment is followed out, pain will rarely be experienced after the first application. Healing will be rapid and disfigurement will be slight.

In cases of inveterate furunculosis which under older methods required from one to two weeks before healing was complete, passive hyperæmia has often cured in from four to five days, and the patients themselves have recognized the benefits obtained by the method.

Equally gratifying have been the results obtained in cases of puerperal mastitis, the passive hyperæmia be-

ing applied by means of a large suction jar attached to a vacuum pump. Again, the intermittent use of the congestion seems preferable, the breast being drawn into the jar with just sufficient force to cause a feeling of fulness. This method has been very satisfactory in these ordinarily most trying cases.

It is not necessary to make very large incisions to evacuate the pus, an important cosmetic point in this region. Not only are the large disfiguring scars avoided, but the period of treatment is remarkably lessened, healing being effected in one case in ten days from the time of onset. It would appear that the suction alone in emptying the loose mammary tissue of pus product plays an important part in cases of this character and would help to avoid the dangers of burrowing which so commonly happens in breast abscesses. An important point in treating breast abscesses by this method is to puncture each focus where pus is suspected; the punctures need not be large, but they should give each abscess cavity, should they be multiple, access to the suction cup.

To recapitulate, the general rules governing the application of the Bier method are that the pressure should never cause pain, in fact it should alleviate it; swelling, cyanosis, and œdema should be produced even up to the constricting point, the arterial pulsation not being interfered with: pus if present is evacuated, the bandage being applied as described; in severe cases continuous pressure is maintained for twenty hours, in others a daily compression of ten hours is indicated, the time gradually being reduced as the inflammatory condition subsides.

While these rules hold good for acute conditions, they are not applicable to tuberculous affections, in which hyperæmia should be induced for a short time without producing œdema. In tuberculous affections of the extremities and in tuberculosis arthritis the constricting band is applied exactly as in the case of acute infections. It is allowed to remain from one to three hours, possibly two hours being the limit for its use by those who are not experienced in hyperæmia. The constriction is sufficiently firm to produce hyperæmia, but in no sense should an œdema be produced. The adaptation of this method has obtained in Bier's experience most favourable results, his unfavourable cases being encountered more particularly in the early years of his practice when constriction was employed over long periods of time. This method applied daily is well adapted for dispensary practice, and in some cases intelligent patients have been able to apply the constriction themselves although this is a privilege which should be used only with precaution.

My own experience in tuberculous infections has been limited to one intractable case of tuberculous synovitis, in which a return to the normal condition was accomplished; one case of persistent sinus of the hip following an operation for coxalgia, which closed after six weeks of daily interval cupping continued one hour at each sitting; and several cases of cervical sinus following tuberculous adenitis which closed rapidly under the intermittent suction treatment. The gray, sluggish granulations have become red and healthy, and within a month or six weeks of daily treatment have healed firmly, though with all other methods of treatment they persistently refused to heal.

This paper is intended to call attention to the application of artificially induced hyperæmia in general practice. Its use in severe affections such as an extensive phlegmonous infection, an acute osteomyelitis or arthritis, should, as Bier advises, be permitted only after extensive experience. This can be gained alone through practice in the minor affections, in cases of chronic disease, and a most careful attention to technique. The treatment can, however, and should be used in the cases I have mentioned with perfect safety by the general practitioner.

Through observations made during a year's experience with this treatment, I believe it to be a very important adjunct to surgery which should not be neglected because it requires time, trouble, and special apparatus, for it is the duty of the surgeon to earnestly strive to produce the best results in every case whether it be minor or major work.

For producing hyperæmia by suction, as in abscesses and furuncles, I have the ordinary Davidson cup consisting of a glass bell with rubber bulb attached. Of these I have several sizes; they are kept in a tray containing 1:2000 bichloride solution. When treating lesions of this character a cup whose margins will reach just beyond the indurated area is selected and is applied with sufficient force to draw the enclosed area about $\frac{1}{4}$ inch into the glass bell. It is a good plan to start with light suction and gradually increase it as the part becomes anæsthetic. Should the cup slip the edge should be covered with unguent, petrolat. or olive oil. When these lesions are seen early, there simply being slight tenderness and induration, they may frequently be aborted by cupping for thirty minutes at intervals, with five minutes suction and three minutes rest.

Should the lesion appear very hard, glossy, and the induration be quite marked, indicating that some breaking down of tissue has taken place, a quarter-inch incision should be made under ethyl chloride anæsthesia, after which the cup is applied as before. In such cases the slough or core will usually be loose on the second day, and it may be drawn out by the cup or may be withdrawn with toothed forceps, leaving a cavity lined with healthy granulation tissue.

When fluctuation is present the treatment is the same. The pus is withdrawn by suction, not forced out by pressure.

At first pus and blood will be withdrawn, then dark blood, then bright-red blood, then blood-stained lymph, and finally pure lymph. When nothing but lymph is withdrawn the suction may be discontinued, the cavity syringed with peroxide and bichloride and a sterile gauze dressing applied without drainage. The treatment is repeated daily and may require from four to seven days, depending upon the severity of the lesion and the resistance of the patient. A slight cyanosis may persist for several weeks after healing, but this will disappear and the scar will not be noticeable.

The œdema which follows cupping will be found to act almost like an infiltration anæsthesia, and the lesion may often be probed or even incised with little or no pain. Ordinarily no pain is experienced after the first treatment.

In fractures where reduction is easily maintained, passive motions and

massage started on the second day are found very beneficial, and this treatment may be aided by baking, after the acute congestion has subsided. When this method is carried out splints may be discarded early. For instance, a Colles fracture may be carried in a sling, splintless, after the fourth week, and after the fifth week the arm may be used.

Bier has lately reported some favourable results with passive congestion in cases of tuberculous testicle, but I have not yet had any experience with this treatment in these cases. Here hyperæmia should be produced, but œdema should be avoided.

I have treated cases of acute synovitis of the knee-joint so painful that the foot could not be touched to the ground, and have had the patients stand up and limp out of the office with a Martin bandage.

The treatment seems rational, as it is simply assisting nature to effect resolution and repair by increasing the means which she normally employs to accomplish this end.

In summing up the advantages of the Bier treatment I would say they are as follows:

Rapid relief of pain.

Small incisions.

Slight disfigurement in exposed parts.

Shortening of convalescence.

Less chance of metastasis from early opening.

The disadvantages are:

The length of time required in treatment.

Special apparatus.

Experience in severe cases.

SOCIETY MEETINGS.

MEDICAL SOCIETY OF NOVA SCOTIA.

Halifax, N. S., July 1, 1908

THE fifty-fifth annual meeting was called to order at 9 o'clock a. m., the President, Dr. John Stewart in the chair.

It was moved by Dr. A. McD. Morton, that in order to save time the reading of minutes be condensed to include only actual resolutions passed. Carried.

The minutes of the fifty-fourth meeting were then read as desired, and were, on motion, adopted.

The following Nominating Committee was appointed: Drs. Hattie, (Chairman), Balcom, Morton, D. A. Campbell, G. E. Buckley, and the Secretary.

Communications:—A letter from Dr. W. F. Read, Secretary of the Annapolis-Kings Medical Society, re government inspection of schools, factories, etc., was read.

A letter from Dr. Arthur McDonald, of Washington, D. C., re criminal, pauper and defective classes, insane, was read.

It was moved by Dr. M. A. B. Smith, seconded by Dr. M. E. Armstrong, "that a special committee report on these communications at the session of the following day." Carried.

Committee:—Drs. Hattie, H. K. MacDonald, Cowie.

Reports:—The Treasurer's report for 1907-08 was read, and on motion adopted.

It was moved by Dr. M. A. B. Smith, seconded by Dr. D. A. Campbell, "that when committees are appointed by this Society, individual written notices be sent to each

member as appointed, by the Secretary. Carried.

On motion the meeting adjourned to meet at 9 a. m. on July 2nd.

July 2nd, 1908:—The Society met at the School for The Blind at 9 a. m., the President in the chair. Dr. H. K. MacDonald was appointed to act in the Secretary's absence.

Dr. H. A. March moved, "that a committee of three be appointed to inquire into the advisability of a change in our constitution and by-laws respecting the time of our annual meeting:" and further resolved, "that this be deemed sufficient notice of motion, should such change after investigation, be found desirable, to enable such alteration of the constitution and by-laws to be proceeded with at our next annual meeting." Seconded by Dr. M. A. B. Smith. Carried.

Dr. M. A. B. Smith moved, "that all proposed amendments to the constitution and by-laws of this society, and all proposed matters of special importance be incorporated in the notice to members calling the annual meeting." Seconded by Dr. Hattie. Carried.

Dr. Hattie, Chairman of Special Committee at the previous day's session to consider communications, reported.

Re Annapolis-Kings communication: "Your committee beg to report that in view of the fact that we are cognizant of recent action by the Nova Scotia Government in this matter, we would recommend the appointment of a special committee by this society to investigate the whole

matter, and to make such report as they may see fit at our next annual meeting."

Re communications from Dr. Arthur MacDonald, of Washington, regarding the establishment of a laboratory under our government for the scientific and sociologic study of the criminal, pauper, and defective classes, "we beg to report that this subject appears to us to be of such importance that it should be referred to a special committee to report at some future annual meeting."

The appointment of six members to the Provincial Medical Board by the Society, was then proceeded with, and the following named declared elected:

Dr. John Stewart, Halifax.
 Dr. W. H. Macdonald, Rose Bay.
 Dr. J. G. MacDougall, Amherst.
 Dr. W. B. Moore, Kentville.
 Dr. J. W. McKay, New Glasgow.
 Dr. R.A.H. MacKeen, Glace Bay.

It was moved by Dr. H. K. Macdonald, seconded by Dr. J. W. McLean, that yesterday's proceedings be considered legal. Carried.

It was moved by Dr. H. A. March, seconded by Dr. M. S. Dickson, that provided there are sufficient funds, the constitution and by-laws be printed. Carried.

The report of the nominating committee was then presented. Its nominations were:

For place of meeting in 1909:—
 Sydney.
 President, Dr. A. S. Kendall, M. L. A., Sydney.
 First Vice-President, J. A. Sponagle, Middleton.
 Second Vice-President, H. V. Kent, Truro.
 Sec'y.-Treasurer, J. R. Corston, Halifax.

Executive Council:—G. E. Buckley, J. S. Morton, S. W. Williamson, L. H. Morse, W. F. MacKinnon, C. E. MacMillan, C. P. Bissett, with members appointed by county societies where there are such.

STANDING COMMITTEES:

Sanitations—Drs. Wm. MacKay (Reserve), A. P. Reid, L. M. Murray, G. E. DeWitt, M. E. Armstrong.

Legislation:—Drs. H. A. March, E. A. Kirkpatrick, A. P. Reid, A. J. Cowie, J. B. Black.

Medicine:—Drs. H. E. Kendall, C. H. Morris, M. T. MacLean, H. H. MacKay, Bruce (Sydney).

Surgery:—Drs. R. A. H. McKeen, Webster, (Yarmouth), H. K. MacDonald, M. Chisholm, J. G. MacDeugall.

Obstetrics:—J. W. MacLean, M. A. Cowie, C. J. Margeson, A. McD. Morton, L. R. Morse.

Therapeutics:—W. B. Moore, W. H. Eagar, W. H. MacDonald, (Rose Bay) J. J. Roy, A. F. Buckley.

It was moved by Dr. M. E. Armstrong, seconded by Dr. H. K. Macdonald, that the report of the nominating committee be adopted. Carried. Those named therein were therefore declared elected.

It was moved by Dr. H. A. March, seconded by Dr. H. K. Macdonald, that the reports of the special committee on communications (see above) be adopted. Carried.

The following were named as committees to act as outlined in the reports:

(a) Drs. G. L. Sinclair, L. M. Murray, S. L. Walker.

(b) Drs. Hattie, DeWitt and W. B. Moore.

It was moved by Dr. Hattie, seconded by Dr. A. McD. Morton, that a special committee be appointed to consider, in view of the President's Address to the Maritime Medical Association, any possible changes in the organization of the Provincial Board

of Nova Scotia, and to report at the next Annual Meeting. Carried.

Drs. Hattie, W. B. Moore, and D. A. Campbell were named as this committee.

The meeting on motion adjourned.

J. R. CORSTON,
Secretary.

PRINCE EDWARD ISLAND MEDICAL SOCIETY.

The annual meeting of the Prince Edward Island Medical society was held in Charlottetown on the 29th of July, with the President, Dr. A. McNeill, in the chair. The following doctors were present: Doctors A. McNeill, McLaughlan, Warburton, Jenkins, J. C. McDonald, Murphy, McLellan, Murchison, Beer, Carruthers, Champion, Johnson, Conroy, Dewar, Stevenson, Barnes, Goodwill, Houston, Kelly, Ledwell, McEwen and Gallant.

The report of the Registrar, Secretary and Treasurer was read and adopted as read. Report of a committee on fees was submitted. A report on the scale of charges adopted.

Then followed the President's Address, in which he made good and timely suggestions regarding the giving of certificates for liquor and regarding tuberculosis. A vote of thanks was moved by Dr. Warburton, seconded by Dr. McLaughlan.

The officers for the ensuing year were then elected as follows :

President—Dr. J. C. McDonald.

Vice-President for Prince—Dr. McLellan.

Vice-President for Queens — Dr. Houston.

Vice-President for Kings — Dr. Barnes.

Secretary—Dr. Carruthers.

Treasurer—Dr. Conroy.

The members of the Medical Council elected are: Doctors A. McNeill, Warburton, Jenkins, Johnson, Carruthers, Murphy and Conroy.

AFTERNOON SESSION.

In the afternoon meeting at Falconwood, after showing the visitors through the building, Dr. Goodwill read a paper on Insanity, which, with the clinic, illustrating various forms of insanity, their causes and treatment, was most instructive and interesting to those present.

It was moved, seconded and carried that a committee consisting of Doctors Johnson, McLaughlan and Jenkins be appointed to organize or re-organize the existing Society for the Prevention of Tuberculosis, and to try to organize a society in Kings County.

Dr. Murphy read a paper on "The Increase of Ectopic Gestation in our Times," evolving a theory as to its causes.

Dr. McEwen read a paper on a case of Ovariectomy.

Dr. Houston read a paper on Ambulatory Treatment of Potts Fracture.

Dr. Champion gave a short statement of the recent epidemic of small-pox, as treated by him on Lennox Island.

Dr. Warburton read very valuable notes on a case of incarceration of an old Umbilical Hernia with subsequent resections of a large portion of the bowel.

NIGHT SESSION.

It was moved by Dr. Jenkins and seconded by Dr. Conroy that the annual fee for the year be \$1. Carried.

It was moved by Dr. Kelly and seconded by Dr. Johnson, that the sum of \$100 be granted to entertain visiting members at the meeting of the Maritime Medical Association next year. After considerable discussion it was carried.

It was moved by Dr. Murphy and seconded by Dr. Conroy that this society aid in organizing a campaign against Tuberculosis with the suggestions made in the President's Address.

Dr. Goodwill's paper was discussed by Dr. Conroy and Dr. Warburton.

It was moved by Dr. Warburton that this society tender a vote of thanks to Mrs. Goodwill and Miss Arthur for the excellent entertainment given the society after the afternoon meeting.

The next paper to be discussed was that read by Dr. Murphy. Dr. Conroy, in his remarks, took issue with Dr. Murphy as to the cause of extra uterine gestation, claiming that the present methods of diagnosis account for the more frequent discovery of the conditions. He also exhibited a specimen of extra uterine gestation.

Then followed a discussion of Dr. McEwen's paper and Dr. Houston's. Meeting closed.

After the Medical Society meeting the Council meeting was held and elected the following officers :

President—Dr. Warburton.

Vice-President—Dr. A. McNeill.

Registrar-Secretary—Dr. Jenkins.

Treasurer—Dr. Carruthers.

It was moved and seconded that the meeting adjourn to meet again at the call of the Registrar.

PERSONALS.

DR. O. G. DONOVAN, of New Germany, and Miss Lela Ham were married at Mahone Bay on the 22nd of July. Dr. Donovan was a former house surgeon at the Victoria General Hospital, and Miss Ham was until recently the efficient night supervisor at the same institution. The NEWS extends its congratulations.

Dr. A. R. Cunningham has just returned from special study at London and Vienna. Dr. Cunningham will

confine his practice to diseases of the eye, ear, nose and throat; office, 91 Hollis street.

Dr. C. D. Barnaby and family, formerly of Louisburg, recently moved to this city, residing on South street.

Dr. F. V. Woodbury, who was confined to the house for some weeks with iritis, has fully recovered.

Dr. N. E. McKay and family have recently returned from their visit to London.

WHITE CLAY IN CHOLERA AND INFECTIOUS DIARRHEA.

In the *Deutsche Militärärztliche Zeitschrift* for November, 1906, Buttersack reviews Jul. Stumpf, on a reliable cure for Asiatic cholera, severe infectious diarrhea and concerning the importance of Argilla in the treatment of certain bacterial diseases.

He has conceived the idea of utilizing white clay in surgery and internal medicine, and he understands how to entertain the reader by his genial enthusiasm. In the shortest time the most wonderful results are achieved by the use of bolus alba for the worst contusions, if the part concerned is only enveloped with enough of it. If 125 grams be dropped in $\frac{1}{2}$ L. of water and drunk as quickly as possible, diarrhea, cholera, poisoning, etc., are quickly controlled, providing that the bowel is empty at the time.

The hypercritical trend of the times is naturally skeptical, but the remedy is simple, and every one has a chance to prove this therapy. Stumpf thought at first that these extraordinary results were brought about by the drying of the bacteria, but now he claims that the small microbes are enveloped by the somewhat larger bodies of bolus, and in a manner buried alive and made harmless. The proposition gains credence by reading the pamphlet, and it is recommended for trial.—W. C. Rucker in *The Military Surgeon*.



NEW METHOD OF ARTIFICIAL RESPIRATION.

E. A. Schaefer, the well-known professor of physiology at Edinburgh,

has devised a new method which bids fair to supplant the older methods. At the recent Congress of Physiology held in Heidelberg he demonstrated his procedure, which is particularly valuable in the resuscitation of those apparently drowned. The patient is laid prone on the ground after removal from the water, the head being placed in such a position as to fall downward and to one side, with the tongue hanging out of the mouth. As a rule, it is not necessary to pull the tongue out, as the position admits of this lolling easily. The manipulator kneels at the side of the patient, or perhaps across his buttocks, and presses firmly upon the back over the lower ribs. By relieving the pressure the normal elasticity of the ribs draws air into the lungs. Such movements of pressure and release should be repeated at intervals of not more than five seconds. In this way from 6,000 to 12,000 c. c. of air interchange can be brought about, and this is amply sufficient to entertain efficient respiration. The prone position is of great advantage over the supine position, which is the old method devised by Howard, in that there is no blocking of the pharynx by mucus and by the tongue, and there is little danger in pressing upon the internal organs to their disadvantage, particularly the liver, as sometimes happens in the Howard method. Furthermore, the resiliency of the ribs makes a very efficient aid in mitigating the amount of fatigue on the part of the operator. The new method has been tried extensively in artificial asphyxiations, and in several cases of drowning, with considerable success.—*Merck's Archives*.

A SIMPLE WAY OF MIXING BENZOIN, GLYCERIN AND ROSE WATER.*

The above mixture is used very extensively as a household remedy for chapped skin and toilet purposes.

Some years ago I made some experiments and found that a stable mixture can be made in the simplest way possible, with the same result in various proportions of the ingredients.

We will take the following mixture as an example, although other proportions will work equally well. Take—

R	Glycerin	1	ounce.
	Benzoin	1½	drams.
	Rose water, to	4	ounces.

Mix the glycerin and rose water in a bottle, shaking it well. Then pour the tincture of benzoin very slowly and carefully on the top of the mixture, cork it, take the bottle by the neck and invert it once or twice slowly without shaking it. The result is a perfectly white emulsion, without separation or conglomeration of resin, and perfectly stable.

The same process holds good with all resinous tinctures, such as tincture of myrrh and others.

*Read by Valentine Schmidt, at the 1907 meeting of the California Pharmaceutical Society.

PROVERBIAL ASSURANCE.

By CAROLYN WELLS.

Only a fool never changes his mine.
It is not good for man to make a loan.

He grafts best whose graft lasts.

The wages of syndicate is debt.

A man is known by the company he floats.

Take care of the books and the funds will take care of themselves.

Monopoly is the best policy.

A good graft is rather to be chosen than great riches.

There's no tool like an old fool.

Don't kill the goose that buys the golden brick.

Don't count your coupons before they're detached.

One touch for money makes the whole world skin.—*Everybody's*.

❖ ❖ ❖

Amenorrhea—Whether from shock, exposure or other causes the menstrual flow is scanty or suppressed, the administration of Hayden's Viburnum Compound will invariably effect relief. Its action is to normalize pelvic circulation, and in anemic or debilitated subjects, its administration just preceding each monthly epoch will restore the reproductive system to its proper condition.



CURRENT MEDICAL LITERATURE.

ROTUNDA PRACTICAL MIDWIFERY, By
E. HASTINGS TWEEDY, F. R. C. P. I. and G.
T. WRENCH, M. D. Published by D. T.
M'AINSH & Co., Toronto, Ont. Price \$5.00.

This work, as is indicated by its title, is an epitome of Midwifery as taught and practiced at the Rotunda Hospital, Dublin an institution with a world-wide reputation and is written by the present Master with the assistance of Dr. Wrench, late Assistant Master. It embodies the best teaching of that famous school in all that relates to the practical aspects of the obstetric art.

The scope of the book is designed to be essentially practical. It furnishes the student or practitioner with a guide to the diagnosis and treatment both of normal and of abnormal cases, the treatment being given in detail so that the methods of this school can be adopted and carried out by any medical man. As instances, we may refer to the treatment of accidental hæmorrhage and of eclampsia. Again, the various operations of urgency which the medical man may be called upon to perform at a moment's notice, under the most adverse conditions, are fully described.

The management of normal labour has been dealt with in the greatest detail, no part, however apparently trivial, being omitted, which may aid the practitioner in his endeavours to prevent a case becoming abnormal, or in recognizing the abnormality at the earliest possible time when such exists.

Having in view its great importance the subject of puerperal sepsis in all its aspects receives special attention, from the point of view of its prevention and of the early recogni-

tion both of minor morbid conditions and the graver forms of infection. The authors are of opinion that in the vast majority of cases, puerperal infection has its beginning in some minor form, which, once recognized, can be promptly dealt with.

A full account is given of the early care of the healthy infant and of artificial feeding. The clinical differences between the healthy and the unhealthy infant are then dealt with—stress being laid on the prevention of ill health. The work concludes by a short account of the various early affections of infancy.



SUBCUTANEOUS HYDRO-CARBON PROTHESIS, by F. STRANGE KOLLE M. D.,
GRAFTON PRESS, PUBLISHERS, New York,
Price \$2.50.

Cosmetic Surgery is not practiced to any extent in the Maritime Provinces of Canada. Deformities and blemishes susceptible of correction abound. For some reason or other people are either unwilling or cannot afford the time and money necessary to carry out this treatment, and the profession, perhaps, is indifferent about making known to the laity how much good can be accomplished by up-to-date prothetic methods. The object of the author of the monograph is to place before the profession a thoroughly practical and concise exposition of the subcutaneous employment of hydro-carbons for the correction of defects about the face, neck and shoulders.

The author is evidently very familiar with the literature of the subject, and has had an extensive practical experience, and he presents his mat-

ter clearly and forcibly. One half of the book is devoted to the indications, changes and general technique of the procedure, preference being given to the methods of Gersuny. The remainder is devoted to the technique necessary in special defects, excellent illustrations being freely used. We especially commend this book to those engaged in surgical work, feeling that it may induce some at least, to take greater interest in cosmetic work.



International Clinics.—A Quarterly of Illustrated Clinical Lectures and Especially Prepared Original Articles, by Leading Members of the medical profession throughout the world. Volume II, Eighteenth Series, 1908. Published by J. B. Lippincott Company, Philadelphia and London.

The present volume contains an assortment of articles that are particularly interesting to progressive practitioners. "Treatment of Syphilis by Atoxyl," by H. Hallopean, of Paris, an authority of wide experience, is well worth perusing. Reasons are given how atoxyl, whose remarkable

success has been found in the treatment of sleeping sickness, was administered in syphilis. "Two Years' Experience of Treatment by the Inoculation of Bacterial Vaccines," by Edward Turton, M. D., of the Hull Royal Infirmary, and "Serum Treatment of Bacillary Dysentery," by Drs. Vaillard and Dopfer, of Paris, are worth careful study. Dr. Louis Fischer, of New York, the well known authority on children's diseases, writes a most practical contribution on "The Treatment of Scarlet Fever, Including Prophylactic Measures." A few other articles of merit may be mentioned, viz.: "Reconstructive Surgery of the Face," by John B. Roberts, M. D., of Philadelphia; "Treatment of Varicose Ulcer and Varicose Veins of the Leg," by A. D. Willmoth, M. D., of Louisville; "The Clinical Manifestations of Uterine Cancer," by John A. Sampson, M. D., of Albany, and "Recent Research into the Pathology of Malignant Disease," by Charles E. Simon, M. D., of Baltimore. The illustrations are numerous and well executed.

REPRINTS RECEIVED.

"Thaw and His Mental Status," by C. H. Hughes, M. D. Reprinted from *Alienist and Neurologist*, May 1908.

"Paresis, Epilepsy and Epileptoid as Menaces to Railway Safety." By C. H. Hughes, M. D. Reprinted from *Alienist and Neurologist*, May 1908.

"Oxygen in Medicine and Surgery," by William Seaman Burbridge, M. D. Reprinted from *New York State Journal of Medicine*.

"The Sanatorium Treatment of Mental and Nervous Diseases," by

Dora F. Downing, M. D. Read before the Massachusetts Homœopathic Medical Society.

"Restricted Procreation," by C. H. Hughes, M. D. Reprinted from *Alienist and Neurologist*.



BOOK ANNOUNCED.

The Wistar Institute of Anatomy announces the publication of an important work, "A Study of the Causes Underlying the Origin of Human Monsters," by Franklin P. Mall, Professor of Anatomy, Johns Hopkins University. The book is published at \$3.50.

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need for a stronger extract. The commercial digitalins are all impure mixtures, made as a rule from digitalis seeds, and should only be given when very mild effects are desired over a long period of time. The use of combinations of heart tonics usually with nitroglycerin, now sold in tablet form, is one of the most deplorable developments in therapeutics to-day. The practitioner who allows himself to give powerful drugs in this way fails to learn the action of any one of them. If he thinks at all he becomes a skeptic. Otherwise he remains little more than the agent of some manufacturing pharmacist. He has never happened to see satisfactory results from the fluid extract, and does not now favour its use. There remain two official preparations, the infusion and the tincture,

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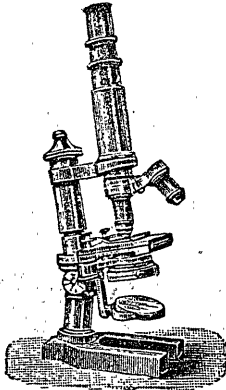
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besides the powdered leaves, which may, when correctly made, be considered trustworthy, and the choice of one of these must be largely a personal matter. His personal experience leads him, for most purposes, to favor the infusion, chiefly because one can be reasonably sure of having it freshly made if so specified. In case after case, supposed to have been treated with digitalis without benefit, he has seen prompt results follow its use. For hypodermic use the tincture has been most commonly employed, but it is unfortunately irritating and often causes abscesses or large hemorrhagic areas. Of the recent preparations digalen, while a favourite in Germany, he has found neither less irritating nor more efficient than the tincture. Digitalone seems decidedly less painful and fairly active, but there is, as yet, no ideal form for injection, and a good tincture is perhaps most certain in its action. The physician who gives digitalis to slow the heart in a paroxysm of tachycardia, or in fever to produce diuresis in acute nephritis, or to remove an inflammatory pleural effusion, is foredoomed to failure; yet, all of these are attempted, and faith in

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digitalis for its rightful uses is lost in consequence. The direct action of digitalis is to increase contractility, tone and irritability. Loss of tone and diminution of systolic output are the cardinal indications for the use of digitalis. The only guide as to dosage of digitalis is the therapeutic result. Digitalis should never be pushed for more than a few days without careful records of the heart as well as pulse rate, and of the amount of fluid taken and urine passed in twenty-four hours. In cases of hypertension, blood-pressure should also be recorded. Any marked decrease in urine is a danger signal not to be neglected, for with diminished excretion of the drug cumulative effects may supervene—*Cleveland Medical Journal*.



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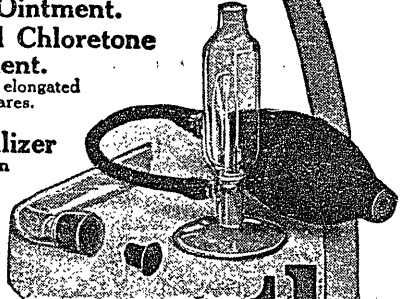
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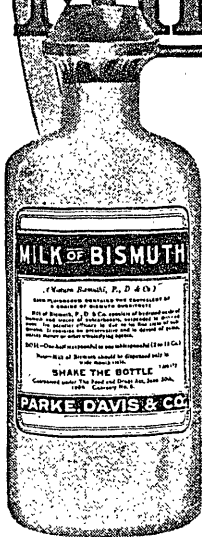
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