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Canadian Medical Association

... AND ...

Provincial Board of Health Number.

Canadian Journal

of Medicine and Surgery

Vol. IV.

TORONTO, CAN., SEPTEMBER, 1898.

No. 3.

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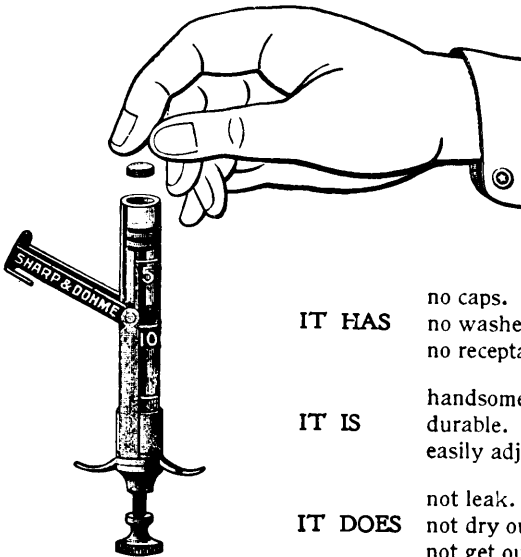
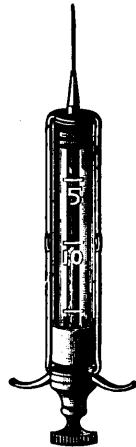
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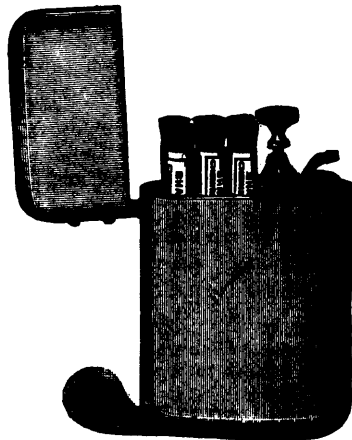
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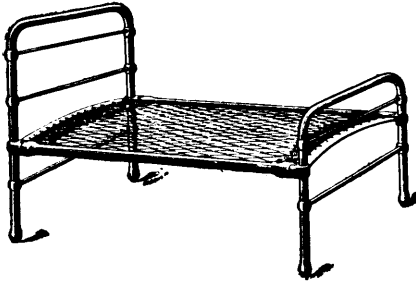


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
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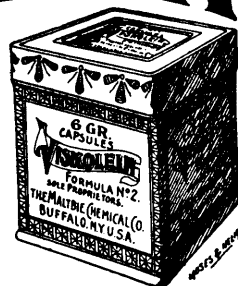


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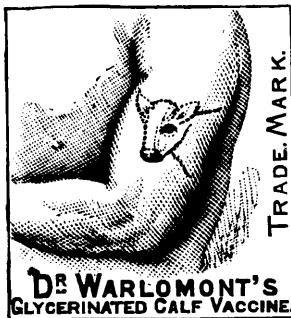


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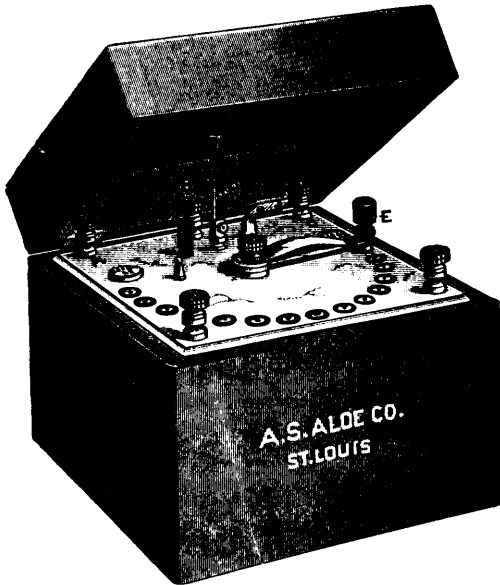
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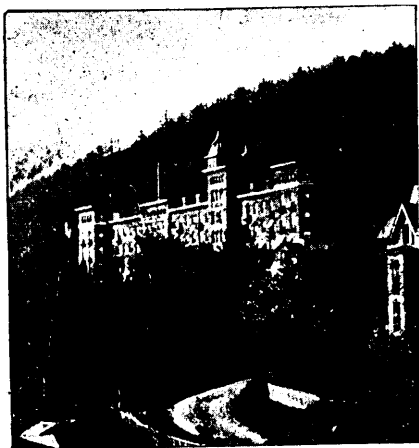
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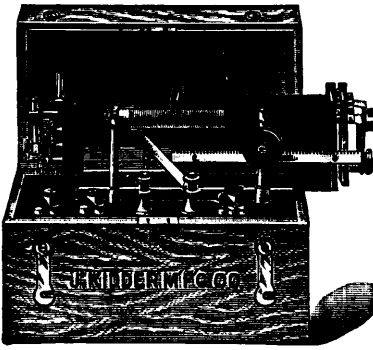
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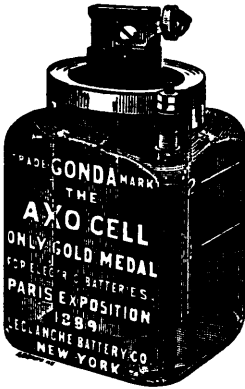
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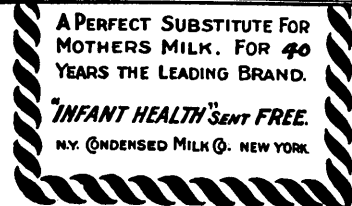
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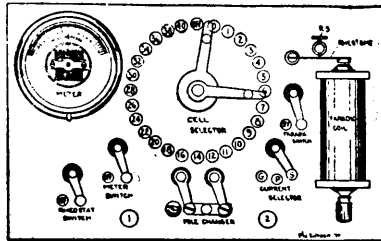
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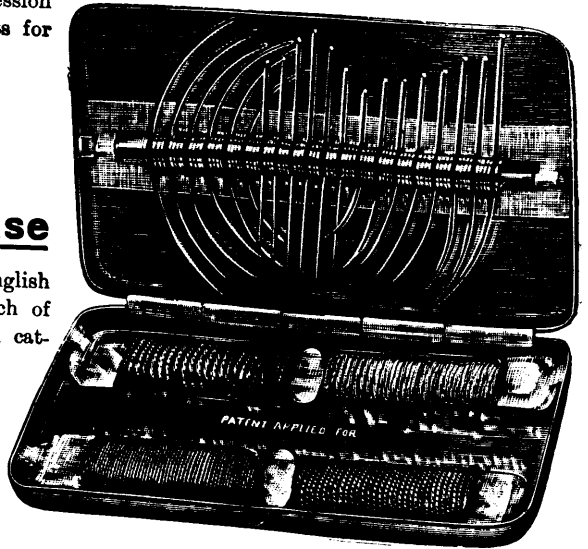
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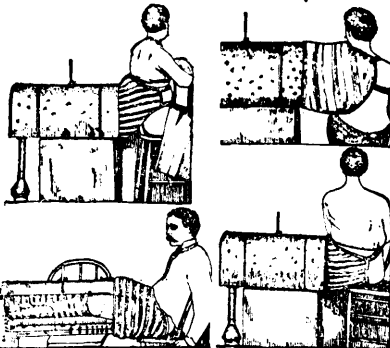
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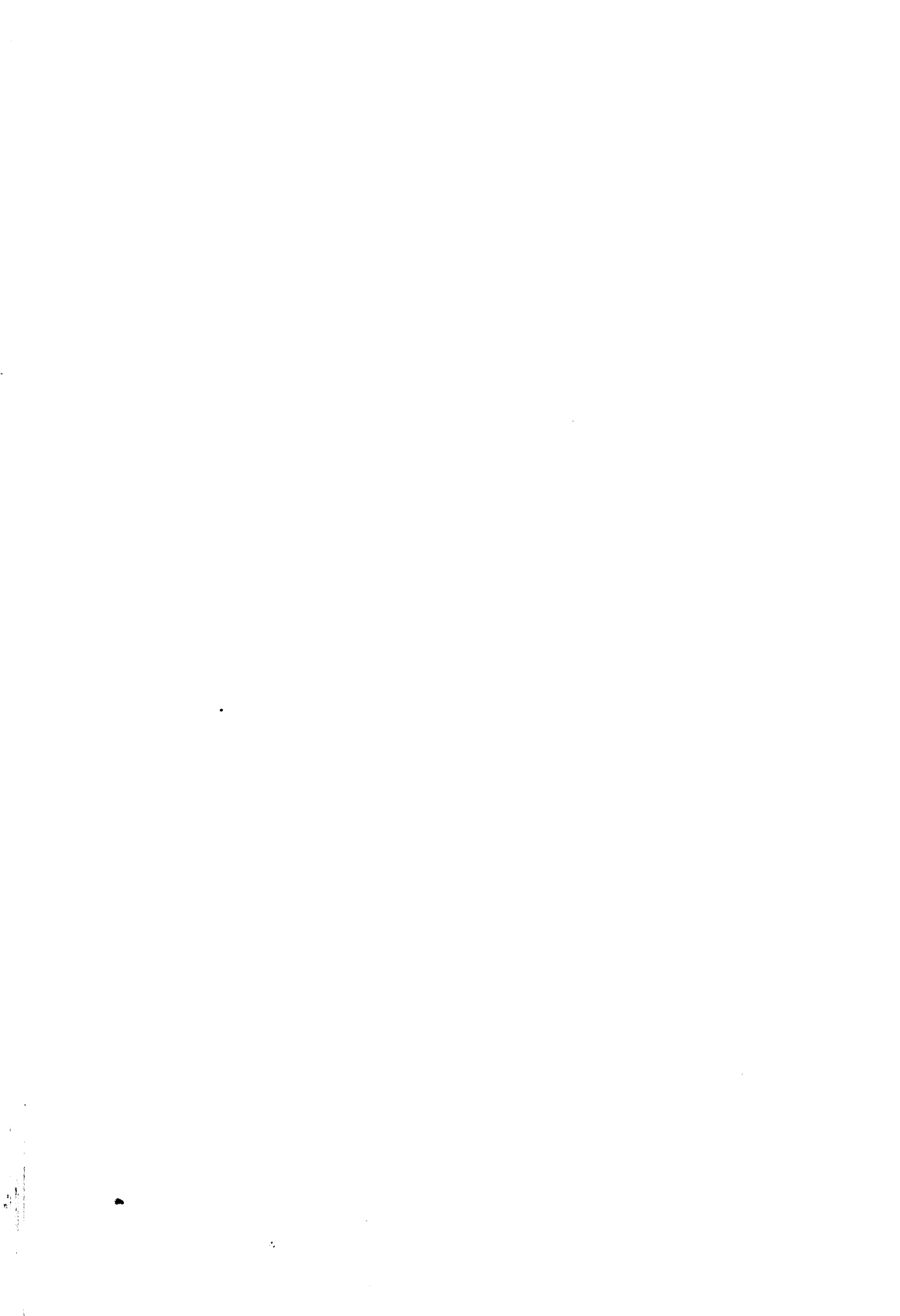
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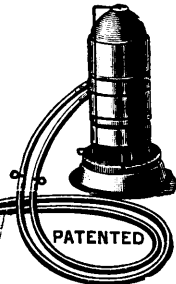
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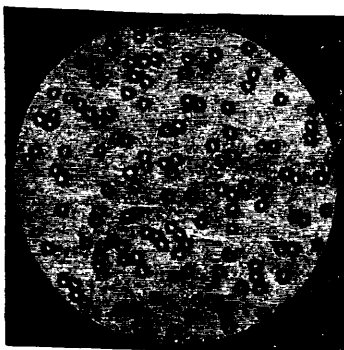
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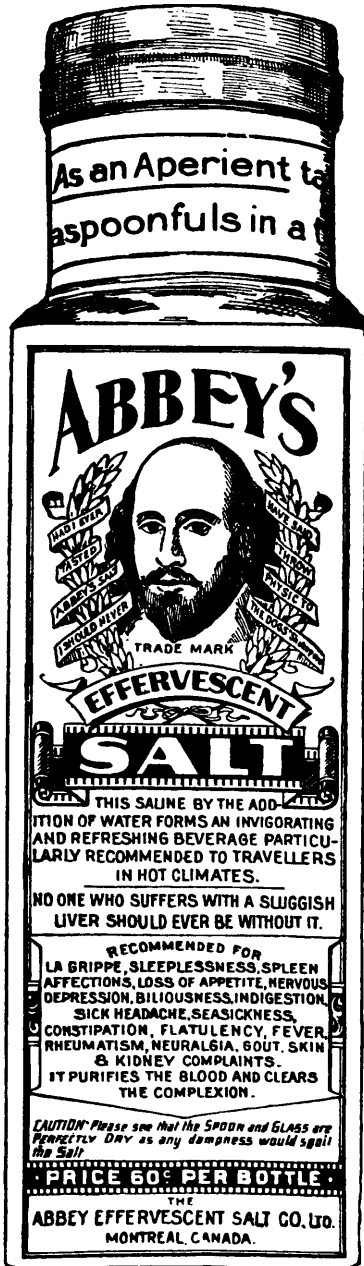
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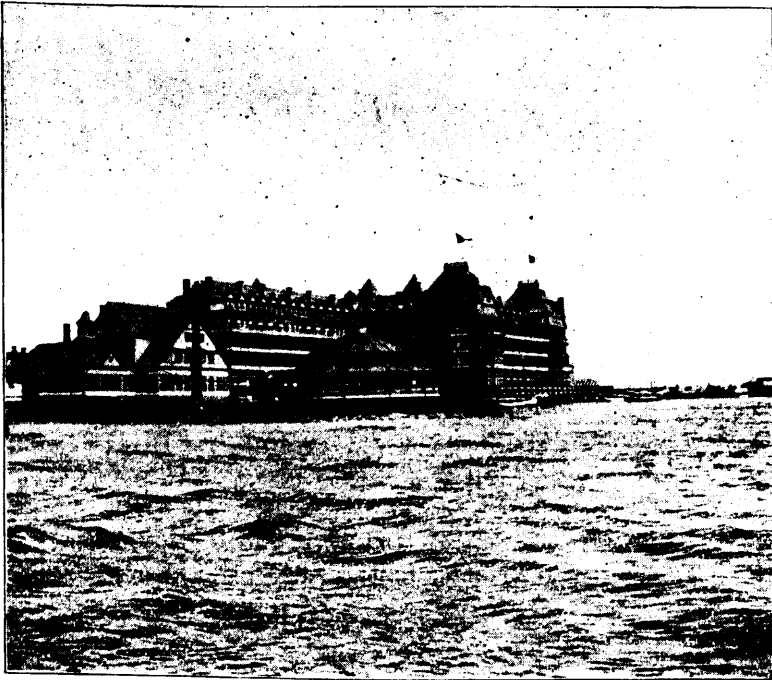
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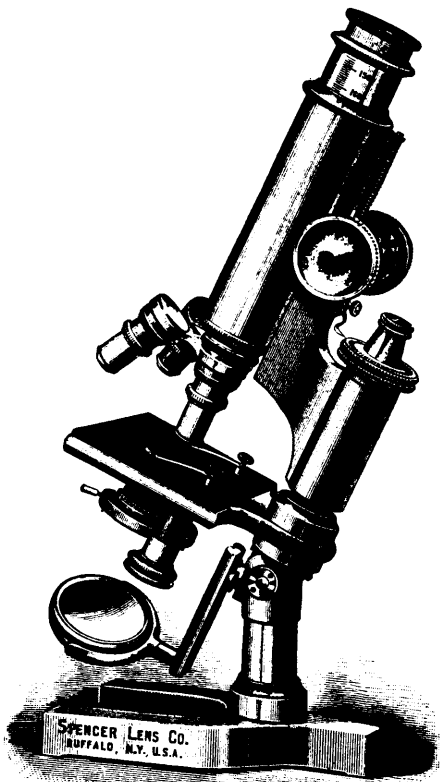
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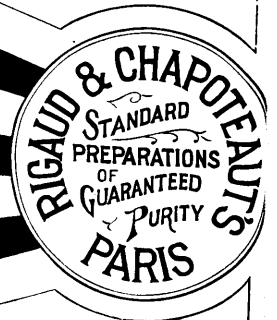
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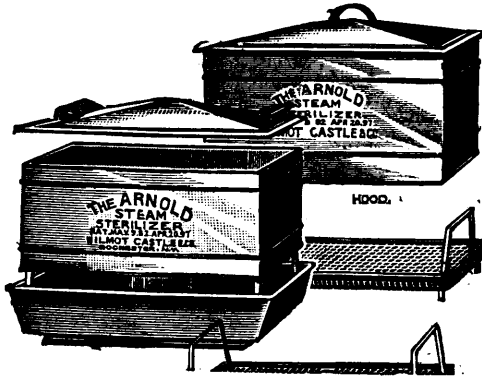
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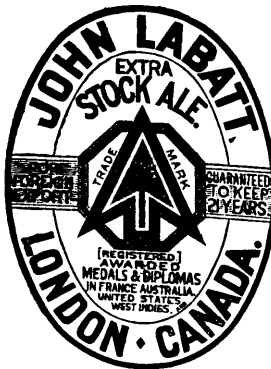
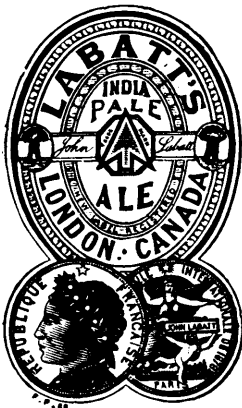
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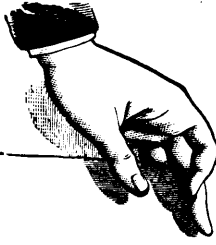
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The Canadian Journal of Medicine and Surgery

A JOURNAL PUBLISHED MONTHLY IN THE INTEREST OF
MEDICINE AND SURGERY

VOL. IV.

TORONTO, SEPTEMBER, 1898.

NO. 3.

Original Contributions.

THE TREATMENT OF CONVALESCENT CLUB-FOOT.*

BY V. P. GIBNEY, M.D., NEW YORK.

MR. PRESIDENT AND GENTLEMEN OF THE ASSOCIATION,—I take this opportunity to thank you for the honor conferred upon me. It will afford an opportunity, I trust, for the discussion of a subject which I know must be of interest to all practitioners.

Permit me to thank your Secretary for his courteous invitation to present a paper on this occasion, and to take part as a guest in the proceedings of a body so well known for its excellent scientific work.

Among the deformities the Orthopedic surgeon is called upon to treat, there is no one of these more interesting than club foot, and, I may say without fear of contradiction, no one more difficult of conducting to a successful issue. A discussion, therefore, is timely, and should lead to a better understanding of the underlying causes and conditions that make the different methods of treatment at times so unsatisfactory. These changes in the bones of the tarsus, the shifting of articular facets, taken in connection with osseous development should be understood by all who make any attempts at restoration of the clubbed foot, and he who looks sneeringly upon these anatomical changes, relying upon a "radical cure," which he has heard expounded by a recognized authority, will find that the road to cure is not always a royal one. He will also find

* A Paper read before the Canadian Medical Association at its annual meeting in Quebec August, 1898.

that the accomplishment of a cure and the maintenance of the cure are altogether different.

I want to dwell, therefore, on these underlying principles in the Pathology and the pathogeny, in order to have my hearers realize the great difficulty in the way of maintaining a correct position of the foot once it has been restored.

The terms in my title have been chosen advisedly, and a definition of the same will enable us to better understand the subject under discussion.

By "treatment" I want you to know that more than "management" is understood. When we leave the care of a case to the family we tacitly admit that nothing further is required of us, and that the good results we have secured will be lasting, relying on ordinary lay common sense to conduct the case through the convalescence, however tardy this may be. In club-foot especially something more than family co-operation is required after the deformity has been corrected. Both management, by which I mean "line upon line, precept upon precept," and remedial measures, are called into requisition if we mean to have our good results permanent.

By "convalescence" we understand that period of time between a cure and a final restoration to perfect health. In club-foot, for instance, we mean the stage between the time the doctor has pronounced the deformity fully overcome, and the time when all concern about the shoes and other retentive appliances may be abandoned. It is just this stage or period to which I wish to invite your attention to-day. The kind of club-foot I am discussing is the kind with which you are all most familiar, viz., equino-varus, dating from birth, congenital. If time permits I shall allow myself to include in the discussion some of the acquired forms such as paralytic valgus, calcaneus and cavus.

Before passing to the treatment proper I may as well forestall by answering a question which may be propounded. Why treat anything that is convalescing? Does not the term convalescing mean that treatment is at an end, and that a cure is already an accomplished fact?

If we had no such terms in our vocabulary as "relapsing club-foot," "inveterate club-foot," and the like, the question would admit of but one answer. I can appeal to the members of the Association, who have been in practice from ten to twenty-five years, to uphold me in the statement that cases which at one time have been regarded as cured have relapsed, and that the latter condition is far worse oftentimes than the former. In other words, all of us feel that a deformed foot which has once been cured and become deformed again is a very difficult case to manage.

Let us see why relapse occurs—why the foot does not remain straight—especially in children who are old enough to understand the necessity of a correct gait.

Among the causes may be mentioned—a failure on the part of the surgeon to effect perfect reposition. He may not have grasped

the situation, may not recall to mind the anatomy of the normal foot—the relation of the astragalus to the inner facets of the mallioli to the facets of the metatarsal bones—the size relatively of the scaphoid and the cuboid—the shape of the necks and heads of the bones mentioned. Let me show you these bones, their shape and the articulating facets. (Here demonstrate a normal foot, also by way of comparison a club-foot.) He may have failed to realize the normal development of bone, its density, etc., etc. I do not mean that it is necessary for the surgeon to carry in his mind all the facts—the size of the articulating facets, the length and direction of the neck of the astragalus, the length of the os calcis—but I do claim that he should recognize the fact that changes have occurred, and that as a consequence changes in muscle, tendon and fascia have taken place. Once bearing in mind the possibilities and the probabilities, he must consider the absolute necessity of replacing all these subluxated bones, the lengthening of shortened or contracted muscles, tendons and fascia—the shortening of lengthened tendons and fascia.

Once in possession of all this data his work can go on intelligibly and he will not rest content until a restoration, in the full sense of the term, shall have been accomplished.

By relapsing club-foot one is to understand not necessarily a complete return to the original deformity, but an incomplete cure, or at least a slight change for the worse. We fail sometimes to recognize this condition, believing that all is going well. The patient toes in a good deal, and rolls toward the outer side of the foot. The shoe will be worn off along the outer border. The behavior of the shoe, for instance, is enough often to determine that a relapse is going on. Why, then, should a relapse occur? This is simple enough. In the first place, the cure may not have been complete; the displaced bones may not have been held long enough in position for the redevelopment of the normal facets. We are content with present appearances and are often content to get quick results. Again, in effecting a correction of a deformed foot, whether by manual force repeated from day to day, or by apparatus whose tendency is to correct, or whether by immediate reposition under an anæsthetic, we fail often to fully stretch the shortened tendon, fascia or ligament. We fail when operation is done to completely sever all opposing structures. In other words, we do not bear in mind that we must over-correct if we expect to maintain good position. I have long since made it a rule in correcting rachitic deformities, such as bow-legs, knock-knees, etc., to over-correct at the time of operation. I do not believe now that I have ever regretted such a procedure, especially in club-foot. It is good, therefore, to bring about over-correction. I am free to confess that in one or two instances that have come under my observation, over-correction has been maintained too long, so that I wish here to enter a slight protest against too long maintenance of the over-corrected position. The surgeon himself must be the judge in this matter. He can decide just how long he shall maintain this

position, and in order to decide intelligibly he must have an opportunity for repeated observations. In our own city, to which patients come from all distances in quest of advice and treatment, it is very difficult to have the opportunity of repeated examinations, for the reason that the expenses are great and the patients themselves feel that they must get home, so that after all it devolves in a great measure upon the family practitioner, to whom we must all look for co-operation. Again, after the appliance has been worn sufficiently long the development of the muscles is of the greatest consideration. We are taught to think lightly often of the paralytic theory in the causation of club-foot, especially where the deformity is congenital. You must all recognize that the muscles are small, even if not palsied, and our aim should be to bring about as full development as possible if we expect to maintain good results. I may say, therefore, that the failure to develop muscles after the cure of the club-foot is one of the causes of relapse. Another cause is complicated apparatus.

The club-foot shoe that needs constant repairs, that easily gets out of order, and that an ordinary smith in any town cannot easily repair, is certainly objectionable. The appliance in the first place should fit well. It should be easy of application, and it certainly does require the close attention of the surgeon in charge of the case. It will not do to leave this to an instrument-maker. The doctor himself usually ought to know what indications he aims to meet, and whether the apparatus in question meets these indications. He only is competent to judge from time to time whether alterations and repairs are necessary.

The charge is sometimes flippantly made by the general practitioner that the surgeon who practises a specialty is loath to discontinue treatment in a case. In other words, that he is prompted by mercenary motives to continue a case too long under observation. It is not my purpose to answer any charge of this kind, but I merely bring it up in the course of my remarks, and desire to say this much: that in a large proportion of chronic diseases and deformities it is absolutely necessary to continue one's observation throughout the period of convalescence, however long this may be, and the best ultimate results are obtained by men who hold zealously to this principle. When a cure is regarded as complete it is necessary to impress upon the family or the patient certain instructions about the gait, the shoe that is to be worn, etc. It is well at all times to let the patient understand that the deformity is a chronic one, that certain changes must be brought about before a cure may be regarded as permanent, and that a great deal of assistance can be rendered by the patient himself. The different methods of treatment are as follows: first, daily manipulation, which must be taught the family, and assurance that the family has been taught. It is all well enough to say, "Work the foot and twist it from day to day." The father or mother or nurse should be taught just how to twist it; should

be taught the functions of the foot, and the surgeon should see that these instructions are carried out. The shoe itself should be raised along the outer border of the sole so as to throw the weight on the inner border, which in the normal foot is the weakest part. The construction of a shoe after this pattern is sometimes rather difficult, but the shoemaker himself can be taught just how to build the shoe, what to do to the sole, how much thickness—in fact, all the details of its construction.

The mere turning in of the toe, or pigeon toe, is not an insurmountable deformity, nor is it one that need cause much anxiety. We often must wait until the child is old enough to develop some pride in walking, and the mother herself can be shown just how to make the child walk. She can have the child practice this walking several times a day. If the pigeon toe persists after these instructions, then the sole of the shoe at the toe on its outer border can be raised fully three-eighths of an inch. If obstructions exist, such as shortened fascia, shortened tendons, elongated neck of the astragalus, then it is well to remove these obstructions. Do not hesitate to divide tendons or fascia quite freely, not necessarily openly, because most of these operations can be done better by the inexperienced surgeon subcutaneously; after division, however, over-correct and apply plaster-of-paris. The plaster should not be removed for at least two or three weeks, if it is found that the foot is inclined to relapse; reapply the plaster, incorporate in the plaster, along the plantar surface of the foot, a bit of board, so that the child can walk on this without disturbing the efficiency of the plaster dressing. I have found it necessary, in some instances, to continue the plaster for at least six months. Generally about three months.

If one is at all familiar with the use of water glass, a much lighter dressing can be made, and a dressing that requires a less closer shoe thereover.

The open operations are, removal of the head of the astragalus, a cuneiform osteotomy through the proximal end of the os calcis, and it is astonishing how readily the parts heal after an aseptic operation on these bones. The indications for removal of the head are failure to bring the foot past a right angle, and the prominence of the head of the astragalus. Of course, it is well to divide the tendo-Achilles, plantar fascia, and to attempt over-correction before this operation is resorted to. The indications for operation on the os calcis are, a persisting varus, an undue prominence of the cuboid and the proximal end of the fifth metatarsal. These small bony prominences do give an immense amount of trouble to patients convalescing from club-foot. They require the greatest care in the fitting of boots or braces, and when one fails to correct them by milder means, there is nothing quite so good as a cuneiform osteotomy of the os calcis, about one-half inch from its distal end. Where none of these indications exist, and where the foot simply rolls to the outer side, it is very often necessary to

do a supra-malleolar osteotomy, which can be done subcutaneously, and which results most happily. I have done this operation a few times, without any occasion to regret having done so. It is efficient, and I feel sure then that there will be no relapse, because I can put my fractured tibia in just the position I want it, to maintain the good position.

In conclusion, I wish to dwell upon, first, the over-correction of a deformity before the cure is regarded as complete. Second, the maintenance of this over-correction a reasonable length of time, say from eight to twelve weeks. Third, the employment of simple and uncomplicated apparatus. Fourth, the daily manipulation of the foot. Fifth, the development of the muscles after the deformity has been corrected. Sixth, the opportunity for an occasional observation, extending over many months. Seventh, the superintendence of the construction of shoes which are intended to throw the weight of the body along the inner border of the foot, and to assist in eversion. Eighth, the resort to bone operations when simpler measures fail.

THE TREATMENT OF DIPHTHERIA AT THE CHILDREN'S HOSPITAL, PARIS, AND THE ISOLATION HOSPITAL, TORONTO.*

BY J. J. CASSIDY, M.D., TORONTO, ONT.

A COMPARISON of the results obtained in the treatment of cases of diphtheria at the Children's Hospital, Paris, and the Isolation Hospital, Toronto, during 1897, will probably be interesting to practitioners in Ontario. The Parisian statistics were presented by Dr. Sevestre, president of the Medical Society of the Hospitals, at a meeting of his society on May 1st, 1898, a report of which appeared in *La France Medicale* of May 6th. The report shows that the use of Roux's serum continues to give excellent results. The more serious cases of diphtheria, or those which receive the serum treatment at a late stage in the disease, are now sent to the Children's Hospital, so that Dr. Sevestre's statistics refer to cases of a graver character than those treated with serum when this treatment was begun in 1894.

Of 580 cases of diphtheria treated at the Children's Hospital in 1897, 101 perished, or a total mortality of 17.40 per cent. Forty-three of these children died inside of the first twenty-four hours, so that, if their deaths are not counted, the mortality would be 10.80 per cent. Dr. Sevestre states that in strepto-diphtheria the mortality is always three times higher than in the non-associated forms of the disease. All the patients received a dose of the Roux serum immediately after their entrance into the hospital, the dose being

* Read at the Third Quarterly Meeting of the Provincial Board of Health and adopted.

Dr. Tweedie, medical superintendent of the Toronto Isolation Hospital, reports that during the year 1897, 431 cases of verified diphtheria were treated in that institution, with a mortality of 79, or 18.32 per cent. Eleven moribund cases were admitted, which, being subtracted from the total mortality, would leave 68 deaths, or a mortality of 15.77 per cent.

During the year antitoxin was employed in a few cases—15 in all. It was used, not as a substitute for but as a supplement to the ordinary treatment. Since November 16th, 1894, when the first hospital patient was so treated, 48 patients have had antitoxin administered to them by various physicians. The recoveries were 34 and the deaths 14, or a mortality of 29.16 per cent. During the same period, and including the antitoxin cases, 1191 diphtheria patients were dealt with in the Isolation Hospital. The deaths numbered 194, and of these 37 were moribund when brought to the hospital, which shows a death rate during the period referred to of 16.20 per cent., and if we exclude the moribund cases, 13.18 per cent.

Compared with the mortality in cities, in which the treatment of diphtheria used to be similar to that now pursued at the Toronto Isolation Hospital, the mortality rate for that institution is rather low. For instance, at the Buda-Pesth International Congress of Hygiene and Demography, in 1894, Dr. Roux reported that for 1890, '91, '92, '93 the mean mortality from diphtheria at the Children's Hospital, Paris, was 51.71 per cent. Prior to the introduction of anti-diphtheric serum, the mortality from diphtheria at the Harper Hospital, Detroit, averaged for a number of years 40 per cent. When viewed in the light of these antiquated, pre-antitoxin mortality rates, the corrected Toronto mortality rate from diphtheria for 1897—15.77—is decidedly low. Viewed in the light of the statistics of the Paris Children's Hospital for 1897, in which we find it recorded that serum therapy has changed a death rate of 51.71 per cent. to 10.80 per cent., the mortality of the Toronto Isolation Hospital is not only not low but rather high. To judge the matter fairly, we place the figures in juxtaposition:

1897.	Cases of Diphtheria	Mortality.	Per cent. of Mortality.	Moribund.	Corrected per cent. of Mortality.
Toronto Isolation Hospital	431	79	18.32	11	15.77
Paris Children's Hospital.....	580	101	17.40	43	10.80

Reasoning by analogy, we see no reason why the Toronto Isolation Hospital could not show a mortality rate for diphtheria not only less than that which has been recorded for Paris in 1897, but as low or even lower than the mortality obtained at the Harper Hospital, Detroit, during 1897. The statistic of the latter is as follows:

HARPER HOSPITAL, DETROIT.

	Cases.		Deaths.
Ordinary Diphtheria.....	115	1
Laryngeal Diphtheria	26	6
	<hr/>		<hr/>
	141		7
Excluding two cases moribund on admission...	2	2
	<hr/>		<hr/>
	139	5

Mortality under antitoxin treatment, 3.6 per cent.

Would it not be wise, therefore, for the medical superintendent of the Toronto Isolation Hospital to recognise the great advance that has been made in the saving of life during the last four years by improved methods of treating diphtheria and to govern himself accordingly? It may be that the Toronto children possess a greater power of resistance than that possessed by the average Parisian child. If it were not so, it would be difficult to explain why the present mortality in the Toronto Isolation Hospital does not equal that, which used to prevail in the Children's Hospital, Paris, four years ago, prior to the introduction of serum therapy.

It is not necessary to discuss here the ordinary chemical treatment of diphtheria, for it is much the same in Paris as in Toronto. Assuming, therefore, for the sake of argument, that Toronto children do really possess a greater power of resistance to diphtheria than the Parisian children, they have, in addition, a right to receive from the officials of the Local Board of Health all the assistance that medical art can give in resisting the attacks of this destructive plague. With a little goodwill and the systematic use of the diphtheria antitoxic serum the mortality from diphtheria for 1899 at the Toronto Isolation Hospital ought to bear the same proportion to its recorded mortality for 1897—15.77 per cent.—that the mortality for 1897 at the Paris Children's Hospital—10.80 per cent.—bears to 51.71 per cent., the old mortality rate in Paris prior to 1894. This would mean that the future mortality rate of the Toronto Isolation Hospital ought to be 3.29 per cent. It is an object worth striving for.

ADDRESS IN GYNÆCOLOGY.*

BY T. K. HOLMES, M.D., CHATHAM, ONT.

GENTLEMEN,—The distinction conferred by your invitation to me to lead in the discussion in gynæcology on this occasion is highly appreciated, and I am sure it is intended as a compliment to western medical men rather than as indicating any particular qualification on my part for the performance of so important a duty.

* Read at the Ontario Medical Association Meeting, Toronto, June, 1898.

The great prevalence of uterine cancer, its painful course, and its fatal character are sufficient incentives to the careful study of the disease, and recent observation and a scientific study of its nature, together with improved methods of treatment warrant a much more hopeful view of many cases than was formerly held. The Committee on Papers could probably have chosen no subject more worthy of discussion by this Association, or one fraught with more importance to those who seek our advice than the one under consideration now, and we may indulge the hope that the discussion to-day may add something to the general stock of knowledge of this disease, or may at least disseminate more widely what is already known.

Accepting statistics that have been compiled by Dr. Park, we may safely say that more than three thousand persons die annually in this country from cancer of the uterus. Williams found that for every hundred males dying of cancer there were two hundred and twenty-three females, and that of these the disease attacks the breast in forty per cent., the uterus in thirty-four per cent., and other parts of the body in twenty-six per cent. of the cases. Various theories have been advanced to account for the origin of cancerous growths, but uncertainty as to the etiology still surrounds the subject, and further investigation is necessary before any of these theories can be accepted as entirely satisfactory. The parasitic and the embryonal may be mentioned as the most generally accepted theories, and there are numerous facts to support each as factors, but their consideration may be more conveniently left to those who may participate in this discussion. Trauma, it may be safely affirmed, is a common cause of epithelioma of the uterus, and in this connection laceration of the cervix from childbirth occupies first place. Emmet states that he has never seen epithelioma of the cervix in a woman who has not had a child or has not had a miscarriage, and my own observation and experience, extending over thirty-one years, coincide with his statement in this respect. Compared with cancer beginning in the cervix carcinoma of the body of the uterus or of the endometrium is rare. In my own experience ninety-five per cent. have originated in the cervix and have invariably commenced in an unhealed laceration. I have never known cancer to attack a cervix that has been repaired after a laceration, and my observation in this respect embraces six hundred cases, and extends over a period of eighteen years.

Great credit is due those whose research and skill have done so much to improve methods of treatment. Their labors have reduced the mortality and are saving numberless lives every year, but far greater saving of life and of suffering could be accomplished if means could be adopted to prevent laceration of the cervix during childbirth, or, failing this, to recognize this lesion and repair it before malignancy becomes established. I believe it would be a wise routine practice to keep every woman that bears a child under observation for several months, and if those symptoms

characteristic of this injury be present, to make such investigation as may be necessary to determine its existence and have any unhealed tear cured. If this were done epithelioma of the uterus would be a very rare affection, and more would be accomplished in the saving of life than at present results from all known means of curing this disease after it has become established. The diagnosis, when the affection is confined to the cervical tissue, is generally easy. The age of the patient, the presence of menorrhagia, the character of the discharge, and the general appearance of the patient, all aid in arousing the physician's suspicions. If on examination there be still doubt as to the nature of the disease, the microscope may enable a certain conclusion to be reached. If the disease be located in the endometrium the curette should be used to remove some of the tissue for microscopic examination. Dr. Cullen's method of preparing such scrapings by hardening them in formalin is a most valuable aid in diagnosis. Metastatic deposits rarely occur in uterine cancer, the tendency being to spread laterally to the pelvic and to the retro-peritoneal glands.

In ten autopsies on inoperable cases Russell found metastasis in only one. In four of these cases cancerous deposits were found in the pelvic and retro-peritoneal glands, and in five cases no metastatic deposits could be found anywhere. In 37 cases operated on, he found that 10 per cent. died from the operation, 38 per cent. from recurrence, 5 per cent. were not heard from, and 43.2 per cent. were alive after from one to five years. It is well known that complete removal of all tissue containing cancer cells, in whatever part of the body the disease may be, results in cure, and this is true of uterine cancer. Any mode of treatment that does not accomplish this can only be considered as palliative, and it is because so few cases are seen sufficiently early to admit of this complete removal that the mortality is so high.

The treatment may, for convenience, be considered under two heads, palliative and radical. If the uterus be fixed in the pelvis by involvement of periuterine tissue, or if the bladder or the rectum, or both, be involved, a radical cure cannot be effected, and one's efforts must be directed to the prolongation of life and to the relief of suffering. Removal of diseased tissue by means of the knife, scissors, or curette, followed by the use of the thermo-cautery, checks hæmorrhage, arrests the offensive discharge and often results in great temporary benefit to the patient. Lotions containing permanganate of potash, formaline, carbolic acid or other disinfectant, or deodorant add much to the patient's comfort. Opiates are the only reliable remedy for the pain, and they should not be withheld. In endeavoring to effect a radical cure, high amputation of the cervix and hysterectomy are the operations resorted to. If the case be seen very early, and if the disease be confined to the cervix amputation may succeed, but it is difficult and often impossible to determine when these favorable conditions are present, because the tendency to spread laterally and to involve the broad ligaments

and pelvic glands has been proved by all observers. The complete removal of the uterus must therefore generally be the operation of choice, and it has now been performed so often and with results so satisfactory that its utility in properly selected cases is unquestionable. There is much difference of opinion as to the best method of its performance. The vaginal method has the advantage of being more quickly and more easily performed, and if one could be sure that the tissues outside of the uterus are free from cancerous infiltration, it should be the mode of election. Of this, however, it is impossible ever to be certain, and therefore the abdominal route will, I believe, grow in favor among the best surgeons. I have several times seen cases in which the disease seemed in so early a stage that its complete removal by vaginal hysterectomy scarcely admitted of doubt, and in which I have performed this operation, and yet in these promising cases recurrence within a short time convinced me that it is unsafe in many cases to trust to slight involvement of the cervix as a guarantee that surrounding tissues are free. Every surgeon knows the futility of the removal of a cancerous breast without dissecting out all axillary glands, even when these are normal in size and appearance. I believe the same rule should be observed in cancer of the uterus, and that not only the adnexa but the pelvic glands should be extirpated. This can only be done by opening the abdomen and making a careful and thorough dissection. It is a tedious procedure, and although the liability to shock may be greater, the ultimate result will be more satisfactory.

Any reference to the technique of hysterectomy is unnecessary, because this is dealt with in the numerous works on the subject. I cannot refrain, however, from mentioning an illustrated article in the February and March number of the *Bulletin* of the Johns Hopkins Hospital, by Dr. J. G. Clarke, in which the various steps in the radical extirpation of the uterus and infected glands through the abdominal route is well presented. I believe the illustration in this article is one of a series prepared expressly for Dr. Kelly's book on operative gynaecology, and I have no doubt it will be reproduced in the forthcoming second volume of that admirable work.

I shall only add that in vaginal hysterectomy I have found the use of the clamp so easy and so satisfactory that I prefer it to ligatures of the vessels of the broad ligament, and in abdominal hysterectomy a shaded incandescent light is a very great aid in operating, and should always be available.

I am sure I have saved some patients by transfusing normal salt solution into the areolar tissue beneath the breast when failure of the circulation has threatened, and its use should not be deferred until collapse is imminent, because about twenty minutes elapse before its beneficial effect is appreciable.

Selected Articles.

THE ELEMENTS OF ELECTRICITY IN MEDICINE.

BY PHILIP MEIROWITZ, M.D.

Instructor in Nervous and Mental Diseases, N. Y. Post-Graduate School and Hospital.

For the past three years during my course of lectures at the New York Post-Graduate School and Hospital, I have been frequently requested by physicians attending the course, to devote a portion of my time to a brief exposition of electricity as utilized in the diagnosis and treatment of nervous and other affections. These requests had reference more to galvanism and faradism, less to franklinism or static electricity. Talks with many general practitioners on the subject of the employment of electricity have revealed the fact that the subject presents something mysterious and that the elementary principles are not clearly understood. This doubtless is owing to the fact that the teaching of the use of electricity in the Medical Schools is defective or insufficient, or that no attention is given to the subject, the students being sent forth, ignorant of its advantages as a diagnostic and therapeutic aid, to learn for themselves after the loss of valuable time and possibly the loss of patients through ignorance of its limitations.

It has appeared to me therefore that a concise exposition of the subject would not be untimely.

Apparatus to be employed. The implements necessary for the complete and thorough examination or treatment of a case of nervous disease are the following:

1. A galvanic battery producing a constant current.
2. Conducting cords or rheophores and electrodes.
3. A milliamperemeter.
4. A rheostat.
5. A faradic apparatus giving an induced interrupted current.

The Galvanic Battery. A large variety of galvanic batteries has been placed upon the market and the physician is often at a loss which form of apparatus to select. By far the largest part of the electrical work will be done in the office; hence an apparatus is necessary which will deliver an even current for a number of hours at a time and which will require but little or no attention on the part of the physician. This statement refers primarily to the cells or elements of the battery which are the source of the electric current. The cell, as every one is aware, is composed of

two elements, as zinc and carbon, dipped in a chemical solution which acts upon them and which is contained in a suitable receptacle or vessel. For constant office work a cell is required which does not necessitate the frequent renewal of the chemical solution nor the withdrawal of the zinc element from the latter to prevent its rapid corrosion.

The cell which answers these purposes best is the A.X.O. cell which will retain its activity for about a year and in which the elements can be renewed with but slight cost. The number of such cells for an efficient battery is about forty. As they are rather bulky they are not transportable and cannot be taken to the house of the patient. For the latter purpose a small and compact battery has been constructed, which is admirable for transporting, but which will be found to be a source of much annoyance if employed constantly in the office. This is due to the fact that the elements of the cell, which is small, must be raised out of the chemical liquid each time after using. A quantity of the chemical liquid adheres to the elements and in drying deposits the salts which it contains in solution. In a very short time a thick incrustation is formed which interferes very markedly with the action of the battery. Another serious objection to portable batteries for constant office work is the rapid evaporation of the chemical fluid. There is nothing more exasperating when desiring to examine or treat a patient with electricity than to find that the current does not flow on account of either incrustation of the elements or evaporation of fluid in the cells.

For several reasons it is not desirable when using the battery to employ at each sitting all of the forty cells. Firstly, because the amount of current generally employed can be secured from fewer cells; secondly, because when the entire battery is employed, the energy developed in a number of the cells is practically wasted. As this energy is the result of chemical action, it represents a certain loss in the elements of the cells. To enable the physician to employ any number of cells that he may desire, the key-boards of the batteries sold by the makers are supplied with a device consisting of metallic buttons, arranged in a single circle or in two arcs of a circle and rotating arms, the free ends of which can be brought successively in contact with each of the buttons. These are termed the selectors or switches.

During the past four years I have employed half a dozen different varieties of galvanic batteries; the last of these is the apparatus manufactured by the Jerome Kidder Co., of New York. This cabinet has given me eminent satisfaction. Its chief characteristic is its ingenious simplicity. The cells, which number forty, are arranged in groups of five; each group has its corresponding button on the key-board, with the former of which it is connected. By means of the selecting arms, any group or groups of cells may be used to the exclusion of the remaining cells. By means of the same arms, a defect or break in the circuit which interferes with

the flow of the current may be at once localized in the group in which it has occurred. The cells are arranged in trays in the body of the cabinet where they can be reached without the slightest difficulty, and examined; and the cause of the break in the circuit obviated. The beauty of this arrangement lies in the fact that no expert is required to locate and repair the damage.

As has been remarked above, it is not advisable to employ the entire number of cells at one time. The better plan is to use, say, the first twenty cells on one day, and the last twenty on the next. In this way one-half of the entire battery is always in readiness for active work. In addition to the cell buttons and selecting arms, the key-board is provided with binding posts to which the conductors or rheophores are attached. To the other extremities of the conductors, the electrodes, by means of which the electricity is applied to the body of the patient, are attached. These binding posts, conductors and electrodes correspond to the poles of the battery, of which there are two, viz.: the negative pole or cathode, and the positive pole or anode. It is desirable to know at all times which is the negative and which is the positive pole. To determine this a number of tests have been devised. The simplest of these is the immersion of the free metallic extremities of the conductors in a glass of water and allowing the current to pass between them. The current is turned on by operating the switch S, which plays on two buttons marked respectively "Off" and "On." Having turned on the current generated, let us say by the first five cells, bubbles of hydrogen will soon be seen to appear at the negative pole.

To obviate the necessity of constantly making the test for the determination of the respective poles, and also to render unnecessary the inconvenience and loss of time in changing the conductors from one binding post to another when it is desired to change the operating pole, a little mechanism called the pole changer has been devised which is also attached to the key-board. This consists of a switch and several buttons marked + (positive) and - (negative). The selection of either pole requires simply a turn of the switch.

Milliamperemeter. Just as we have units of space, of mass of time, expressed in the terms foot, pound and second, so in electricity certain units to express electro-physical phenomena have been adopted. These are the ampere (unit of current), the volt (unit of electro-motive force) and the ohm (unit of resistance).

The ampere represents a quantity of current which is so great that it is never employed in medicine. Minute quantities represented by the one or more thousandth parts of the ampere, i.e., by one or more milliamperes are strong enough for practical work in medicine. But how are we to determine the quantity of current or number of milliamperes which any number of cells of our battery is delivering? This is determined for us by an instrument which forms part of the circuit and which is called the milliamperemeter, or, for short, the milliammeter. The utility of such

an instrument will be grasped after a moment's reflection. For the purpose of keeping accurate records the instrument is indispensable. It enables us to apply from day to day the same quantity of electricity to the same patient. It enables us to increase or diminish the quantity of electricity in an intelligent manner. It might be said that the same results can be accomplished by employing each time the same number of cells or by increasing or diminishing the number of cells. But this is not the case, for the quantity of electricity generated by the cells varies in proportion to the length of time that they have been employed; if employed continuously the cells become temporarily exhausted in course of time. Again, the quantity of electricity which the patient receives from a given number of cells on different days varies with the resistance which the body of the patient may present on different days. When the resistance of the body from some cause or other has become increased, a greater number of

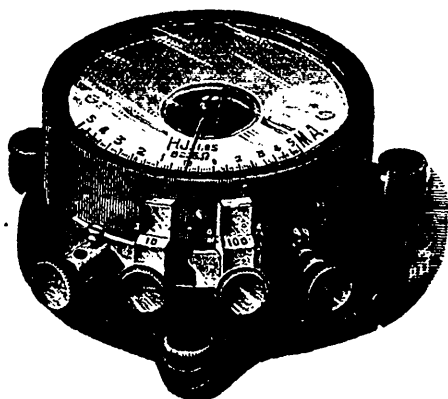


Fig. 1.

cells must be used to secure the same number of milliamperes and *vice versa*; when the resistance of the body has lessened, a fewer number of cells will have to be employed. A common experience is the following: It is frequently observed that a current which is generated by a given number of cells and which may be borne by the patient with comfort at the beginning of a seance, will, in the middle or toward the end of the sitting, be unbearable; a glance at the milliammeter shows that the current has increased in quantity. To what was this due? Certainly not to the use of a greater number of cells. The increase is explained by the fact that the resistance offered by the skin or mucous membrane of the patient at the point of contact of the electrode has become diminished and that a greater quantity of electricity penetrated the body.

Another illustration: It is often seen that whilst on one day a given number of cells produced a certain number of milliamperes,

on the following day, when the condition of the patient was the same as on the preceding day, an equal number of cells deliver fewer milliamperes. In this case, the cause is to be found in the increased resistance developed in the cells themselves. To throw in more cells into the circuit without the use of the milliammeter would be to work entirely in the dark.

Having thus outlined the uses of the milliammeter, a few words with reference to its construction and the best form to be employed in practice, will not be misplaced.

The milliammeter is nothing else than a galvanometer which consists of a magnetized needle suspended in such a manner that it will rotate within the field of a coil of wire. To the needle a long,

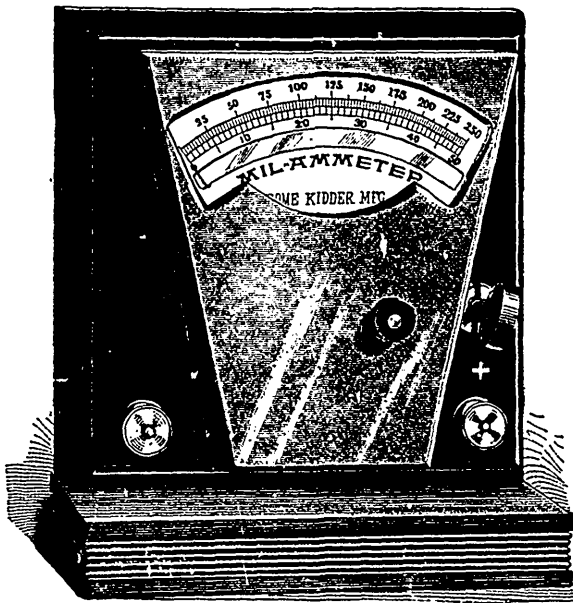


Fig. 2.

light pointer is attached. If a current of electricity generated by a cell be permitted to circulate in the coil of wire surrounding the needle, the latter will be deflected to one or the other side according to the direction in which the electricity flows. The greater the amount of electricity, the greater the deflection. If the light pointer which is attached to the needle be brought in juxtaposition to a scale representing milliamperes, the quantity of electricity is readily determined.

Mil-am-meters are made up in different styles, as the horizontal and the vertical. In the vertical mil-am-meter (Fig. 1) the pointer swings from a point in the scale marked 0, to the right, the degree

of excursion being determined by the quantity of electricity. The needle is unable to swing to the left.

In the horizontal mil-am-meter, the instrument is so constructed that the pointer may swing either to the right or to the left.

In the latter the pointer must always be brought to rest over the 0 mark. This may require some adjustment. In the vertical mil-am-meter the needle, when at rest, always points to 0 and the instrument never requires adjustment. It is for this reason that I prefer to use the vertical mil-am-meter.

The dial of the vertical mil-am-meter presents two scales. One reads from 0 to 50, the other from 0 to 250. By means of a shunt the larger scale may be readily selected.

The Rheostat. When a patient presents himself to us for the first time we are ignorant as to the quantity of electricity which he can bear with comfort. In such a case we would have to begin

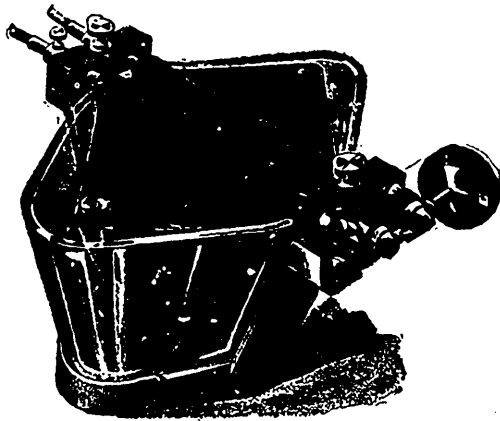


Fig. 3.

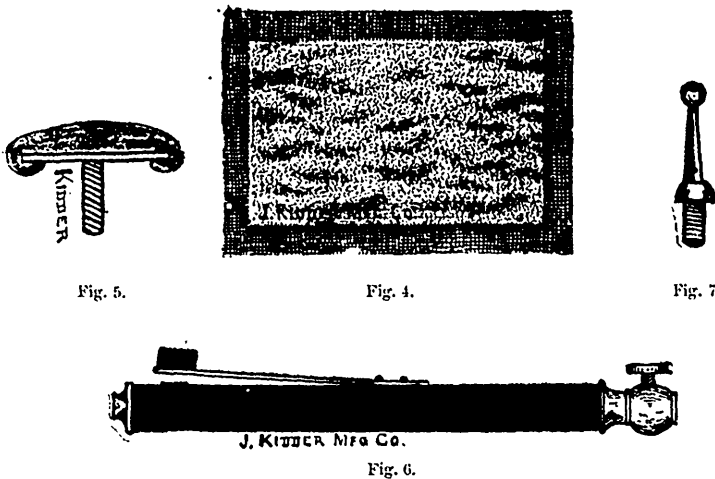
with one cell and feel our way by gradually throwing more and more cells into the circuit. One patient may hardly bear the current generated by ten cells, whilst another will easily bear the current generated by fifteen or twenty cells. This process of gradually throwing into the circuit cell after cell is a tedious one.

Moreover, in many batteries this method has the serious disadvantage of making and breaking the current each time a fresh cell is added. The patient is thereby uncomfortably or painfully shocked. To overcome these disadvantages and to allow at will a gradual increase or diminution in the strength of the current, an instrument called the rheostat or current controller has been devised. The rheostat which I employ and which has given me ample satisfaction is the Bailey Current Controller.

This consists of a movable glass trough holding water, which may be easily removed when desired, and a couple of triangular-

shaped carbon plates each bearing a conical sponge at the free angle. By means of a suitable gear the carbon plates are depressed into the water and the sponge tips made to approach one another. When the plates are raised out of the water the current is broken. As the sponge tips are made to approach one another the resistance offered to the current is gradually diminished and the strength of the current correspondingly increased. In this way it is utterly impossible to shock the patient, and the control over the current is absolute.

For the purpose of applying electricity to the body, instruments called electrodes are employed. These are attached to the wires or rheophores connected with the poles of the battery. They naturally vary in shape and material according to the different objects to be accomplished by the application of the electric current. For



diagnostic purposes, only a few are employed. The physician will require: First, a plate electrode (Fig. 4), which is generally the indifferent pole, and is placed either on the nape of the neck or on the sternum; second, the examining electrode, which consists of a sponge-covered disc (Fig. 5) attached to a handle. For the purpose of making and breaking the current easily the handle is provided with a spring which can be manipulated with the index finger.

When it is desired to electrify nerves or very small muscles the ball electrode is used. The electrodes which have been devised for therapeutical purposes outside the field of neurology are too numerous to mention. The reader is referred to the special works on electricity for full description of them.

The Faradic Battery. The faradic battery consists of (1) one or more cells for the generation of electricity, (2) the primary coil,

(3) the secondary coil, (4) the strengthening core of soft iron within the hollow of the primary coil, (5) the automatic interrupter.

The number of cells required for the faradic apparatus rarely exceeds four. In most of the faradic batteries, a single cell suffices to produce an ample current.

The primary coil, within whose hollow is the strengthening core of soft iron, is always stationary. It consists of well insulated copper wire of moderate thickness and length, wound upon a hollow spool or cylinder of wood or hard rubber. The primary current generated by this coil is never or seldom employed.

The secondary coil is that which produces the induced faradic current which is the one generally employed in medicine. It also

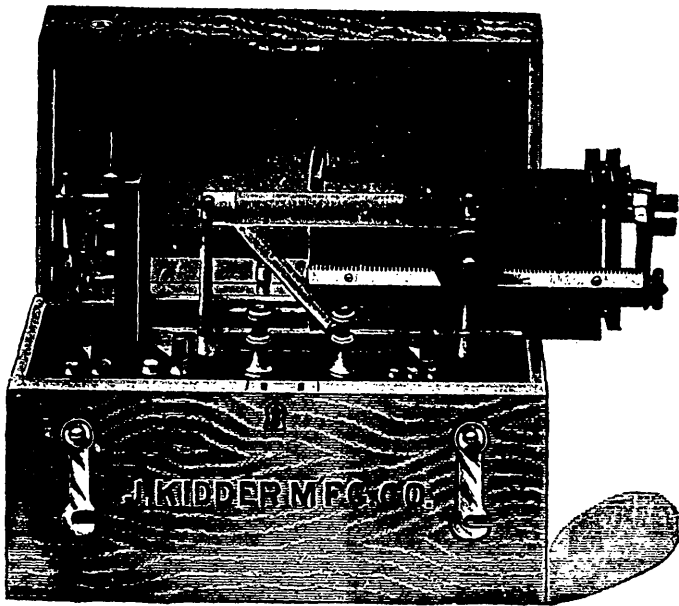


Fig. 8.

consists of turns of insulated copper wire upon a cylinder made of some non-conducting material, and hollowed out so as to enable it to pass back and forth over the primary coil.

The strength and quality of the current delivered by the secondary coil depends upon several factors, viz., the length of the wire, the thickness of the wire, and the number of layers of windings. It is therefore impossible to obtain the various effects of the faradic current by the use of one length and one thickness of wire. To meet the therapeutic indications presented by different cases, different lengths and thickness will have to be employed.

The better forms of faradic batteries are therefore supplied with several coils or, what is still better, the several coils as in the

case of the apparatus manufactured by the Jerome Kidder Manufacturing Company, are combined in one. In this apparatus three different kinds of wire are employed of lengths varying from 84 yards to 2,538 yards. By means of a simple device at one extremity of the secondary coil, it is possible to select any length or thickness of wire required. The ordinary form of faradic apparatus is supplied with one vibrator named a rapid vibrator. The Jerome Kidder High Tension Coil is supplied, in addition to the rapid vibrator, with a slow one. By means of a switch it is possible to change instantly from the rapid to the slow vibrator. The slow vibrator is useful when, for example, one desires to obtain a certain number of muscular contraction per minute. The current is made and broken automatically.

Another advantage possessed by this apparatus over others lies in its rheostat, by means of which the current can be nicely graduated. The uses of the High Tension Coil will be spoken of later.

With the forms of apparatus described, the physician has all the necessary appliances at hand for the diagnosis and treatment of many diseases which resist ordinary medications.

(To be continued.)

A NOSTRUM-SATURNALIA.

WE have lately been glancing over the catalogue of a prominent drug journal, and find much both to instruct and to amuse. According to the historian, "All Gaul was divided into three parts;" our price list likewise divides it in three—the second of which consists of "Patent Medicines." We find this second class by careful count made up of 4,320 articles. Now, unless these things were bought and sold a commercial journal would hardly quote prices upon them; we may also feel assured that there are perhaps as many more such things of local and limited demand that do not get into the price-currents. To satisfy the American public in the way of nostrums we may therefore conclude that about 10,000 distinct concoctions are necessary.

In our list, strangely enough, we find but one man brave enough to advertise an "Annihilator;" among the popular anti's there is one "Anti-transpiration," to two "Anti-fires." There are 31 "Balns" in the nostrum Gilead, ranging in price from 75 cents to \$21.00 per dozen, the "Sovereign Balm of Life" being rated at only \$8.00. There are 70 "Balsams," the "Balsam of Life" costing only 75 cents a dozen bottles. Why is the balsam of life so much cheaper than the balm?

We find one "Beardine," but for the ladies' sake we should have supposed several anti-beardines would have been discovered. Among 67 varieties of "Bitters," we find 3 varieties of "Aunt

Rachel Speer's," though but one "Dromgooles English Female." Those who live in non-malarious districts would not understand what "Breakers," and "Busters" might mean. When you next butter your bread remember that 8 butter-colors are listed for your dairyman, from "Co-Coo" to "Wells in gallon cans." "Hoffman's Worm," and that of "Jaque's" is offered in "Cakes." There are 80 kinds of "Capsules," 56 "Compounds," as many "Cordials," and between 200 and 300 "Cures;" one wonders how the "Choctaw" and "Kickapoo Indian Coughs" differ from the coughs of other Indians or Caucasians, and what kind of a catarrh is the "Comet," and that of "Old Saul." A "Five Minute Headache" is a new kind. "Jackson's Common Sense Colic" would seem unnecessary to cure. Our Missouri colleagues doubtless understand the "Missouri Kidney and Liver," and the Jews, the "Palestine" kinds, while we must all struggle with the "National Kidney and Liver." "Oxygen Tobacco" exists in "small, medium and large," "Sawyer's Family" only in large and small. "Spotted Wolf Pain" and the "Wild West Colic" arouse our curiosity.

There are 41 varieties of "Drops," including "Uncle Sam's;" more than this number of "Elixirs," and "Extracts," and Hair Dyes Regenerators, Restorers, Tonics and Vigors galore. Baldness and beardlessness, from the many cures, have evidently worried the people greatly. The "Thunderclap" and "Zip Injections" are more picturesque and explanatory as terms than "7-11" and the "V. I. G." There are 16 "Killers" to 1 "Kill-Em." The rôle played by muscular rheumatism, etc., may be guessed by the fact of sale for more than 100 kinds of liniments with remarkable names. "Mother's Blessings" and "Mother's Friends" naturally follow many "Milks" and "Mixtures." We cannot mention the excellent "Oils" and "Ointments," of magnetic, wizard, magic, mystic and electric powers, for all the pains, piles, tetter, rheums and itches that have afflicted humanity since the days of Job, and that despite these things still appear active.

Of Pills, those potent and beloved "little" mysteries, we require nearly 300 varieties, the liver, seemingly, being the poorest in function of all the bodily organs, and next to this some mysterious "Female" ones. The picturesque and imaginative advertiser here finds an easy outlet for his humor and descriptive powers in "Day-lights," "Early Risers," "Little Giant," "Lilly's Aphrodisiac," "French Female," "Little Doctor," "Oriental Sexual," "Sexine," "Lazy Liver," "Tutts' Tiny," "Pennyroyals," "Regulatives," "Precious," "Mother Seigel's Operating," "Nine-o'clock," "Gunn's," "Universal," etc. We can even supply the German Emperor with "genuine" American "Kaiser Wilhelm's."

Plasters are magnetic, voltaic and electric as desired, while Powders are guaranteed to cure "Celery Headache," "German Condition," "English Stable," etc. It is strange how the quack has hit on the word "Condition" in reference to powders. There being no less than 23 powders for this disease. "Parotid Extract,"

and "Ovarian Extract" powders indicate an up-to-date science. "Doctors' Headache," we are glad to learn can be stopped. "Preventers" and "Preventives" have a suspicious appearance, as do the many "Regulators," "Renewers," "Renovators" and "Restorers;" "Reliefs" and "Remedies" are of course numerous—all "Galvanic," "Wonderful" and "Magic." We trust there are not as many coughs as there are sirups—somewhere near 150—though one of these, "Boy-Kott-Your-Cough," might alone have sufficed, it would seem. The "Tonics" and "Wafers" should alone have healed man of all his weaknesses and ills.

The long list, with its unconscious display of ignorance, and its conscious pride in fraud and humbug, is a commentary both ludicrous and pathetic upon our popular medical state; through it we get a faint but sickening glimpse of the evils real and fancied that afflict the stupid, magic-loving, civilization-venerated, or semi-savage populace. We have not counted the cures for corns advertised in the list, but from the very large number we can guess how painful to the poor barbarian has been the terrible process of shoeing and booting him. The fact also shames us a bit to reflect that in no medical school or book, so far as we are aware, is the young doctor taught the treatment of this, which at least is a great spoiler of disposition—the corn. More serious and illuminating is the part that headache has played among the people. There are doubtless a thousand headache-cures upon the market. And it is to be doubted if the medical men of the past, if not of the present, have not themselves been responsible for the indifference to etiology shown by the fact, and the absurd reliance on magic and drugs for therapeutics.

When we proceed to the economic side of the question we stand in amazement at the spectacle of the untold millions upon millions of money wasted by the people in their stupid pursuit of these will-o'-the-wisps of painlessness and health. Ask for a tithe of the amount, or the hundredth, by taxation, for real preventive medicine, sanitary legislation, or hygienic laboratories, and indignant rebellion would be the instant answer. We have no space left, and hardly any indignation, for the sin of the syndicates, and the greed of the gullers; it is lost in pity for the gulled.—*Phila. Med. Jour.*

CURATIVE POWER OF SLEEP.

IN an article entitled "The Slumber Cure," contributed to *Health Culture*, New York, November, by Dr. Felix L. Oswald, the author asserts the sovereign efficacy of sleep in a great variety of complaints. He says:

"Brain-work succeeds best while the activity of the animal organism is reduced to an indispensable minimum. The mind is never clearer than early in the morning, when the work of diges-

tion is finished; and for similar reasons digestion proceeds most prosperously when the brain is at rest. Mental distress almost paralyzes the bowels of sensitive individuals, and a business man of my acquaintance denies himself to all comers for the first three hours after dinner to lessen the risk of his dyspepsia being aggravated by unwelcome news. . . . The healing and soothing faculty of nature can work to the best advantage while the meddling mind not only forbears interference, but ignores her proceeding altogether, and consents to undergo the temporary eclipse of slumber of a deep fainting fit. 'We owe that victory to the snow-storms of the last week,' said General Traun, of the Austrian army; 'there was a messenger on the way with the usual budget of crazy instructions from the Kriegs-Hofrath (the chief war-office), but the snow stopped him, and being once left to ourselves we rushed in and routed the enemy.'

"Even thus the 'animal soul' avails itself of blest periods of non-interference, and it is a suggestive fact that in emergencies of mortal danger the healing All-mother begins her work by knocking the meddler silly in order to get her hands wholly free. An overdose of stimulants, a fearful fright, act like a blow on the head, and bring on fainting fits that often defy restoratives, but subside of their own accord as soon as the crisis has been weakened and the risk of interference has become less fatally serious.

"Sleep, the twin brother of syncope, gives the mystic healing power a similar opportunity, and it is almost incredible how short an interval of 'conscious ceregration' may often suffice to effect a favorable decision in the crisis of an organic disorder. Does the animal soul, like the healers of the Parsee sanctuaries, try to conceal its procedures, or shall we assume that the activity of the mind is so serious a drain upon the resources of the organism that it prevents the success of the briefest remedial ministrations? A correspondent of mine, who is subject to attacks of spasmodic asthma, often passes a whole afternoon on suburban trolley-cars, knowing from experience that the rocking motion and the sight of monotonous streets are apt to result in cat-naps, and that the shortest nap of that sort is sufficient to break the spell of the *dyspnœa*—the distressing difficulty to draw a full breath-of life-air.

"A mere cat-nap is also sufficient to relieve sick headaches, dizziness, spasms of colic and neuralgia; and protracted slumber—five or six hours of dreamless sleep—has saved more than one life that could not have been as much as respite by all the drugs mentioned in Bartholomew's 'Hand-book of Therapeutics.' Chronic diarrhœa has been known to yield to that specific, and in many kinds of fevers, too, everything is gained if the patient can be helped to a few hours of deep slumber without the use of narcotics. Monotonous work, purposely continued to the verge of fatigue, may help us to relieve insomnia, and in obstinate cases the appli-

cation of warm winding sheets to the feet and of cool cataplasms to the head will promote the same purpose by alleviating the engorgement of the cerebral blood-vessels.

"Opiates only mock the patient with the appearance of relief, and, like brandy in the rôle of a dyspepsia cure, frequently result in an aggravation of the trouble. Laudanum paralyzes the digestive organs, and not only fails to reproduce the conditions of natural slumber, but goads the brain into fever-dreams, more permanently injurious than sleeplessness."—*Dietetic and Hygienic Gazette*.

MILK DIET FOR ARTICULAR RHEUMATISM.

THE fever of acute rheumatism generally lasts two or three weeks, and, consequently, either from the time it lasts or on account of the rise of temperature, causes an enormous consumption of blood corpuscles, which produces profound anæmia in the patient. The fall of temperature is the best criterion of the cure, and coincides exactly and constantly with the disappearance of the pains.

M. Bigot, in the *Revue Mensuelle de Médecine et de Chirurgie*, gives some clinical facts observed at the Hotel Dieu, at Lyons, on this subject. Quoting from *Health*, the deductions and conclusions drawn by M. Bigot touching the nature of acute articular rheumatism, and the efficacy of the milk regimen in the course of this affection, are based on a number of analyses of urine, made as completely as possible, since they give the amount of the total nitrogen, of the urates, of the total chlorides, and of the phosphoric and sulphuric acids.

The tortures endured by patients suffering from articular rheumatism are in themselves alone of a violence and tenacity sufficient to induce the physician to endeavor to oppose to this disease a treatment which would unite the three qualities, *Cito, tuto, et jucunde*. The milk diet seems capable of fulfilling this desideratum. The therapeutical views of M. Bigot on the subject may be thus summarized :

The milk causes the temperature to fall rapidly below hyperpyrexia, and simultaneously assuages the pains in a period varying from three to eight days. The effects from these two points of view are more prompt and more powerful if the patient be submitted to the milk regimen at the outset of the affection. This milk regimen, without overcharging the stomach or raising the temperature, by its nutritive power and its facility of digestion, prevents in a great measure that characteristic and generally troublesome anæmia left behind by attacks of rheumatism. Besides these general effects, milk diet has a special action on the urinary function, which is clearly indicated in rheumatism. Milk strongly favors the elimination of all the waste principles accumulated in

the organism; its exclusive use causes both the quantity of urine excreted in twenty-four hours and the quantity of all the saline principles dissolved in this liquid to increase rapidly. Density, on the contrary, experiences a proportionate decrease. The impetus given to the urinary function by a milk regimen allows a glimpse of the nature of rheumatism, its near and intimate causes. The analysis of urine seems to show that there is an accumulation of urates or uric acid in the organism of rheumatic sufferers, and that its diminution under the influence of milk is not one of the smallest benefits of this regimen.—*The Dietetic and Hygienic Gazette.*

AN interesting phase of the abuse of hospital and dispensary privileges is one that we have nowhere seen referred to, but which is brought to mind by a recent occurrence in an English court. A woman brought action against the owner of a house in consequence of injuries received through an accident arising out of the failure of a plate covering a coal-cellar to work properly. A hospital surgeon who attended her was severely rebuked by the judge for charging a fee of two guineas for making a report of the patient's condition, the charge being characterized as extortionate. The *Lancet*, from which we quote the facts, makes the legitimate inference that if a patient is rich enough to bring an action in court, he or she is surely rich enough to pay for a medical report; but, as a matter of fact, the report in the present instance was drawn up, not for the poor plaintiff but for the rich defendant. With our cotemporary we are quite certain that the plaintiff's counsel did not render his services gratuitously, nor would he be expected so to do. Then why should the medical man? Now, the point that we wish to make is this: It is not uncommon for patients treated at dispensaries to ask for and receive certificates of illness or disability that will secure them certain pecuniary benefits, which it is fair to presume it was originally conceived should be devoted, among other things, to payment for medical services, but for which the dispensary physician receives no consideration. No doubt the same practice occurs among hospital patients. It is not uncommon, likewise, for insurance benefits to revert to families of patients who have died in hospitals, while again no consideration is given to the hospital physician whose diagnosis and signature are essential to make the claim valid. Now, there is certainly something wrong with a system that permits one set men to give much and receive little or nothing in return, and equity and fair dealing demand that there be no delay in changing such a system. It is time the medical profession should demand for the community the same amount of charity from the legal and other professions as the community demands from the medical profession.—*Phila. Med. Jour.*

Gynecology and Obstetrics.

... IN CHARGE OF ...

GEO. T. McKEOUGH, M.D., M.R.C.S.(ENG.), AND J. H. LOWE, M.D.

THE AMERICAN PEDIATRIC SOCIETY'S COLLECTIVE INVESTIGATION ON INFANTILE SCURVY.

THE subject of infantile scurvy has so recently come into prominence, and still presents so many mooted questions, that the American Pediatric Society appointed a committee to undertake a collective investigation of the matter. The committee has made its report which is quite exhaustive, and has drawn the following conclusions from the combined study of its etiology and treatment:

(1) The development of the disease follows in each case the prolonged employment of some diet unsuitable to the individual child, and that often a change of diet, while at first thought would seem to be unsuitable, may be followed by prompt recovery.

(2) That in spite of this fact regarding individual cases, the combined report of collected cases makes it probable that in these there were certain forms of diet which were particularly proved to be followed by the development of scurvy. First, in point of numbers, here are to be mentioned the various proprietary foods.

(3) We find that, in general, the cases reported seem to indicate that the farther a food is removed in character from the natural food of a child, the more likely its use is to be followed by the development of scurvy.

(4) There is no evidence that any treatment with drugs has an appreciable effect upon the disease.—*Medical News, July 2nd, 1898.*

G. T. M'K.

TREATMENT OF FIBROIDS BY SECURING UTERINE ARTERIES.

GOULLAND (epitome of the *British Medical Journal*, June 18th, 1898) maintains that though oophorectomy for fibroid is out of date and hysterectomy much in vogue, nevertheless treatment by the simpler method of cutting off the chief blood supply of the uterus is rational and effective. He has treated successfully one case by simple forcipressure of the arteries for forty-eight hours.

The operation was performed in October, 1894. In July, 1896, the patient was examined. The hæmorrhages had ceased entirely and no pelvic pains could be felt. The uterine cavity which, two years earlier, measured four and one-third inches, was now but two and a half in length. Hartmann and Fredet are not surprised that removal of the ovaries is often ineffective, as it is the uterine and not the ovarian arteries that ought to be secured. They report five cases of ligature of the uterine arteries through a vaginal incision. All five cases have done well. Out of forty performed after the same methods by others, no deaths occurred.

Goltschalk (*Medical News*, July 2nd, 1898, Berlin Letter) states that the vaginal operation is absolutely without danger, and is carried out as follows: After curettement a transverse incision is made around the cervix, the bladder is pushed back from the vagina and broad ligaments, and the posterior vaginal vault is also pushed away from the broad ligaments, until the ligament containing the uterine artery on either side is fully exposed. This is ligated as close as possible to the uterus by three interlocking ligatures on each side. The peritoneal cavity is not opened. The ligatures are then cut short, and the incision in the vaginal vault is sutured. Twenty patients operated upon by this method all recovered, the patient being up and about in ten days. In all cases the tumors palpably shrunk, while in seven they could no longer be made out.

G. T. M'K.

THE MANAGEMENT OF SOLID TUMORS OF THE OVARIES COMPLICATING PREGNANCY.

SWAN (Johns Hopkins Hospital Bulletin, March, 1898) summarizes the results of a thorough search of the literature on the above subject as follows:

(1) Solid neoplasms of the ovary complicating pregnancy are exceedingly rare.

(2) The diagnosis of this rare combination of a physiological and pathological process may be very difficult. The physical examination with the signs of pregnancy, and those which belong more particularly to solid ovarian growths, will generally enable us to make at least a probable diagnosis and one sufficient to warrant an exploratory section.

(3) The prognosis in cases of solid growths of the ovary complicating pregnancy is much worse both for mother and child than in those of cystic neoplasms of these organs. This is to be explained by the fact that the former are usually smaller and remain in the true pelvis and obstruct the parturient canal; while the latter, owing to their bulk and consistence rise above the pelvis, and the dystocia if produced at all is of a less serious nature. Abdominal section and extirpation of solid tumors during the early

months of pregnancy produce equally good results, so far as the life of the foetus is concerned, as in the case of cysts the ultimate result in the case of the mother depending of course on the malignant or benign nature of the growth.

(4) The general rule should be to operate on all cases between the second and fourth months of gravidity. It would be hard to find a stronger argument in favor of the elective operation for extirpation of these ovarian neoplasms than is furnished by a comparison of the statistics of the best authorities.

(5) The compulsory operation during the latter half of gestation during labor or the puerperium will rarely be required, preference being given to the procedures in the order above mentioned.

G. T. M'K.

STERILITY.

DR. W. GILL WYLIE (*American Gynecological and Obstetrical Journal*, June, 1898), in a very practical paper, gives his treatment of sterility due to disease of the endometrium. The endometritis is usually a question of imperfect development. Young girls, between fourteen and sixteen, are allowed to develop their brain at the expense of their genital organs. In a typical case of dysmenorrhœa and sterility, the os internum is hypersensitive and there is a creamy, yellow, or thin ærid discharge from the uterus, granular erosion and ulceration of the cervix may be present. There is often a slight degree of antifixion, and an irritable condition of the endometrium similar to that found in granular lids. In such cases the best thing to do is to divulse the canal, thoroughly curette the uterus and insert a uterine drainage tube, and it is absolutely necessary to use a hard substance for uterine drainage, and that this substance must be made hollow in the form of a tube. Dr. Wylie's tubes are made of hard rubber, one and a half to two inches long, and have a deep groove down the side in order to facilitate drainage. The tube is also made with a small bulb on the end in order to prevent it being expelled from the uterus. The patient is left in bed for a week, when the tube is removed. No douches are given except the one given previously to the operation, but the vulva is protected by a pad which is changed frequently. As a rule nothing more is necessary. The dysmenorrhœa is relieved and the woman generally becomes pregnant in six months.

G. T. M'K.

DR. J. M. MACCALLUM, Dr. F. N. G. Starr, Dr. C. O'Reilly, Dr. Jas. Thorburn, Dr. W. A. Young, and Dr. D. C. Meyers were amongst the Toronto members who attended the meeting of the Canadian Medical Association at Quebec last month.

Medicine.

... IN CHARGE OF ...
J. J. CASSIDY, M.D., AND W. J. WILSON, M.D.

CLASSIFICATION OF DISEASES.

ADOPTED by the Registrar-General of Ontario in the preparation of his annual report: being the shortened Bertillon classification approved of by the American Public Health Association, and now in use in several of the States of the American Union, in Mexico, and in the Province of Quebec. Physicians in making returns of deaths will please conform as far as possible to this classification, in order to promote precision and accuracy in the preparation of the report of the Registrar-General.

P. H. BRYCE, M.A., M.D.,
Deputy Registrar-General.

GENERAL DISEASES.

I.

Communicable (Epidemic) Diseases.

1. Typhoid Fever
2. Smallpox
3. Measles
4. Scarlet Fever
5. Whooping Cough
6. Diphtheria and Croup
7. Influenza
8. Other Epidemic Diseases

II.

Other General Diseases.

1. Pyemia and Septicemia
2. Malarial Fever
3. Tuberculosis and Scrofula
4. Syphilis
5. Cancer
6. Rheumatism and Gout
7. Diabetes
8. Other General Diseases
9. Alcoholism, Acute and Chronic

LOCAL DISEASES.

III.

Diseases of Nervous System and Organs of Sense.

1. Encephalitis
2. Simple Meningitis
3. Epidemic Cerebro-spinal Meningitis

4. Congestion and Hemorrhage of the Brain
5. Softening of the Brain
6. Paralysis without specified cause
7. Insanity
8. Epilepsy
9. Convulsions (not puerperal)
10. Other Nervous Diseases

IV.

Diseases of Circulatory System.

1. Pericarditis
2. Endocarditis
3. Organic Heart Disease
4. Angina Pectoris
5. Diseases of the Arteries, Atheroma, Aneurism, etc.
6. Other Diseases of the Circulatory System

V.

Diseases of the Respiratory System.

1. Acute Bronchitis
2. Chronic Bronchitis
3. Broncho-pneumonia
4. Pneumonia
5. Pleurisy
6. Congestion of the Lungs (including pulmonary apoplexy)
7. Asthma and Emphysema
8. Other Diseases of the Respiratory System

VI.

Diseases of the Digestive System.

1. Ulcer of the Stomach
2. Other Diseases of the Stomach (cancer excepted)
3. Infantile Diarrhoea and Gastroenteritis ("Cholera Infantum")
4. Diarrhoea and Enteritis (not infantile)
5. Dysentery
6. Hernia and Intestinal obstructions
7. Other Diseases of the Intestines
8. Diseases of the Liver
9. Peritonitis (not puerperal)
10. Iliac abscess (typhlitis, peri-typhlitis, appendicitis)

VII.

Diseases of the Genito-Urinary System.

1. Acute Nephritis
2. Bright's Disease
3. Other Diseases of the Kidneys and Adnexa
4. Vesical Calculi
5. Diseases of the Bladder
6. Diseases of the Male Genital Organs
7. Metritis
8. Other Diseases of the Uterus
9. Ovarian Cysts and other Ovarian Tumors
10. Other Diseases of the Female Genital Organs

VIII.

Puerperal Diseases.

1. Puerperal Septicemia
2. Puerperal Albuminuria and Convulsions
3. Other accidents of Pregnancy causing sudden death
4. Puerperal Diseases of the Breast ..

IX.

Diseases of the Skin and Cellular Tissue.

1. Erysipelas
2. Other Diseases of the Skin and its Adnexa (Cancer excepted)

X.

Diseases of the Locomotor System.

1. Pott's Disease
2. Diseases of Bones and Joints
3. Amputation (for unspecified disease)

XI.

Malformations, Diseases of Infancy. Diseases of Old Age.

1. Still-Births
2. Congenital Debility and Malformations
3. Other Diseases of Infancy
4. Senile Decay

XII.

Suicide.

1. Poison
2. Strangulation
3. Gas Poisoning
4. Drowning
5. Firearms

XIII.

Accident.

1. Fractures and Dislocations
2. Gunshot
3. Lightning
4. Drowning
5. Electric Cars
6. Bicycles
7. Railways
8. Burns and Scalds
9. Homicide

XIV.

Ill-Defined Causes.

1. Dropsy
2. Tumors
3. Other Ill-Defined Causes

DR. R. J. DWYER is at present studying at Johns Hopkins Hospital, Baltimore.

NEW YORK SCHOOL OF CLINICAL MEDICINE.—Some important changes have been made in the professorships of the New York School of Clinical Medicine. Dr. John J. Morrissey has been elected Professor of Practice of Medicine; Dr. Herman Collyer, Professor of Gynæcology, and Dr. Louis Fischer, Professor of Diseases of Children, has been elected Secretary of the Faculty.

Public Health and Hygiene.

... IN CHARGE OF ...

J. J. CASSIDY, M.D., AND E. H. ADAMS, M.D.

THE PROVINCIAL BOARD OF HEALTH.

THE Provincial Board of Health began its quarterly meeting at Dr. Bryce's office at 10.30 a.m., August 4th, with Drs. Macdonald, Vaux, Kitchen, and Bryce present. Immediately after the opening of the meeting Dr. Bryce informed the Board of his action in warning the keepers of hotels and others at summer resorts in Muskoka to refrain from dumping sewage into the lake, as such a practice was likely to increase disease. The Board declared itself as concurring in the action taken by the secretary.

The supply of water is drawn by one of the Rat Portage hotels from the bay. As the use of the water is deemed dangerous, it was decided to give the proprietor of the hotel one week to cut off the pipes bringing it from the bay. Should he refuse to comply with orders he will be summarily dealt with.

A complaint regarding the Iroquois water supply also came up for consideration. This Dr. Bryce has recently investigated, and found that the waterpipe, drawing the water from the St. Lawrence river had been broken, and the supply was drawn from an old canal instead. As the waterworks have changed hands recently, the responsibility could not be fixed, and it was decided to defer the matter, until the question of proprietorship had been settled.

In connection with the report from Goshen, Claremont County, Ohio, of fifteen cases of smallpox, Dr. Bryce reported having visited a camp of Galicians while at Winnipeg recently. He had been informed, that in two shiploads of those people who came through there had been three or four smallpox cases, after leaving the Halifax quarantine.

Communications were read from Mr. J. Maybee, Solicitor for the township of Downie, giving notification, that the township is about take proceedings against the corporation of the city of Stratford to and several of its citizens to prevent the pollution of the River Avon with sewage. The river flows through a number of farms in Downie, and the farmers claim that the water is not only rendered unfit for domestic purposes, but is also liable to spread disease among the cattle. The chairman and secretary were authorized to investigate the case.

A motion was passed referring the account of Mr. G. D. Stinson, Fort Francis, to the Provincial Secretary. The claim is one of long

standing, and is for having kept a number of moneyless miners when the old frontier law was in force. Dr. Bryce reported having investigated the case, and said that Mr. Stinson was entitled to be recompensed, having kept twenty at one time, for which he did not receive a cent.

Dr. Bryce showed a large bunch of correspondence relating to the condition of a pig-pen and slaughter-house at Oakville. The question had been sent to the local board and back to the Town Council several times, but remained in the same position as ever, notwithstanding the fact that there was a by-law prohibiting the establishment of a slaughter-house in the town. A settlement of a similar case at Creemore was reported.

The Board reassembled at 2.31 p.m. Present: Drs Macdonald, Cassidy, Kitchen, Vaux and Bryce. Mr. Topp, C.E., Chatham, was present and requested permission to build a sewer on Baldwin, Forsyth and Grant Streets, in Chatham, to discharge into the Thames, and subsequently into a trunk sewer, which is to be constructed along the banks of the river. The Board passed a resolution stating in substance that the work is a desirable one, but leaving the decision to carry on the work to the City Council. Mr. Mackenzie presented a brief report respecting the method followed by the Quebec Board of Health in collecting blood smears on glass for the diagnosis of enteric fever. He recommended the method.

The Board continued its session in the office of the secretary next morning. Dr. Macdonald presided, and there were also present Drs. Cassidy, Kitchen, Vaux and Bryce. A communication was received from Dr. Rice, medical health officer of Woodstock, seeking the assistance of the Board to do away with stagnant ponds that are numerous in the town. Drs. Bryce and Kitchen will visit Woodstock and investigate.

A complaint was received from Berlin relating to wells, the water of which was thought to be polluted.

The medical health officer of Dereham township reported an outbreak of diphtheria, and stated that physicians were pronouncing the cases tonsillitis, and allowing patients to move about and spread the disease. The assistance of the Board was sought to secure proper isolation.

Dr. Bryce presented his report on contagious diseases. Another outbreak of typhoid at Rat Portage, through using water from the lake before the town, had resulted in five deaths. The taking of water would have to be restricted to the source recently approved by the Board. Tuberculosis was still claiming its usual quota of victims.

The Province had been free from smallpox, but defective quarantine management at Halifax had let a number of cases through, and the doctor thought the educational authorities of the city should take advantage of the favorable season to demand certificates of vaccination from all pupils upon the opening of the schools in September. The report was adopted.

Dr. Cassidy presented a report on the treatment of diphtheria at the Children's Hospital, Paris, and at the Isolation Hospital, Toronto. See page 136.

Correspondence was then read from Kincardine, asking permission to lay additional sewers. The permission was granted. Plans of the town of Fort William were laid before the Board and permission was asked to take the town water supply from a point on the Kaministiquia River, three miles above the town, while the sewer outfall is to be laid into the river, one quarter of a mile from its outlet into Thunder Bay. The permission was granted.

Dr. Bryce read a report on the nuisance caused by deposits of offensive manure, made in the vicinity of railway stations in Ontario. He advised that special regulations be passed by the Board, restraining the railway authorities from continuing the practice of discharging the litter of cattle cars in the vicinity of stations. The report was adopted. Dr. Cassidy was requested to examine into the nuisance created by a slaughter-house at Oakville and report.

The Board then adjourned.

J. J. C.

THE BOSTON BOARD OF HEALTH.

TWENTY-FIVE years ago, January 15, 1873, the Boston Board of Health was established. It came into existence under pressing circumstances, principally to cope with an epidemic of small-pox that had raged in Boston for about three months. As nearly as could be estimated, there were 650 cases of small-pox in the city, some of which were cared for at Gallop's Island, some at a hospital that had just been built, and others were isolated in their houses all over the city. Trade was diverted from the metropolis, and people were moving into the suburbs. In about four months there was not a case of small-pox in the city.

Not until the evil had been wiped out did the commissioners find time to open their eyes to other needs of the city, pertaining to its sanitary condition; but when the field was cleared to admit permanent improvements one great need after another became apparent. Quarantine regulations were established for vessels and immigrants; medical inspectors were appointed; the inspection of tenement houses and provisions was begun; the office of city registrar was created for the registration of births and deaths, and steps were taken in 1874 for the better ventilation of school-houses. The duties of the board were greatly increased early in the year 1875 by a city ordinance placing the cemeteries and burial places in its charge. By a persistent agitation the board succeeded in 1875 in awaking the City Council to the necessity of a change in the system of sewerage, but it was not until many years later that work was actually begun. Among the other per-

manent improvements due to the work of the board, one that was closely related to the system of sewerage, was the establishment, in 1879, of many public baths upon practically the same basis as they are found to-day.

In order to appreciate the worth of what the Board of Health has done, one must only look upon the following result :

The number of deaths in Boston from January 4th, 1873, to April 25th, 1874, a period of nearly seventeen months, was 10,375, out of a population of about 322,000. Whereas last year, with an estimated population of 528,912, there were but 11,154. The relation of the number of deaths from preventable diseases to the total death rate tells more specifically what the result of the health officers' labors has been.

Statistics show that the percentage of deaths from such diseases of the total mortality was 33.89 in 1872. This rate of percentage began to diminish with the creation of the board, but there was no marked difference until in 1885, when it went down to 19.53. Since then it has diminished with unflinching regularity, and it was lower last year than ever, with one exception.

E. H. A.

\$10,000,000 Loss Through Typhoid Fever.

At a meeting of the Water Committee of Councils, of Philadelphia, there was a delegation of physicians from the various medical societies of the city, with a view to such action by the public authorities as will purify the water supply and stay the progress of typhoid fever. Dr. S. Solis-Cohen, of the County Medical Society, briefly stated the object of the delegation and submitted a general statement of the committee's views. . . . "Basing an estimate upon the statistics of the Board of Health for the ten years ending December 31, 1897, which show the total mortality from typhoid fever in Philadelphia during that time to have been somewhat over 5,000 deaths, representing about 50,000 cases of sickness, and estimating the pecuniary loss from each death to have been \$1,000, and from each case of sickness to have been \$100, the citizens of Philadelphia have in that time suffered a money loss, which could have been absolutely prevented by filtration of the water, of some \$10,000,000. This would not only have paid for filtering the water supply, but would also have spared all this disease and death."

E. H. A.

State Regulation of Marriages.

Parker, of Ohio, has introduced into his State Legislature a bill to regulate marriages. It provides for the appointment by the Probate Court of each county a Board of Marriages composed of physicians. To this board, consisting of three members, persons

who wish to marry must make application. The board will refuse to grant a license in case either party to the proposed contract has dipsomania, kleptomania, insanity (true or hereditary or resulting from vice), certain blood diseases or tuberculosis. It will charge \$2.50 for each license, and out of the fund so made each member will be paid a salary of \$1,000. There is provided a method of appeal to the State Board of Health in case of any refusal to grant the license. The bill is at present impracticable and will not probably be made a law as yet, although in time public sentiment may be educated in that direction.—*Chicago Medical Times*.

E. H. A.

A Disinfected Newspaper.

Food and Sanitation says that the scare caused by the outbreak of smallpox in Middlesborough has been clearly diverted by the *North-Eastern Daily Gazette*, which has a certified circulation of 60,000. The publisher has arranged to have every copy of the paper disinfected as long as the epidemic lasts. He has thus converted the daily issue into an agency for the widespread distribution of disinfecting influences, and for the provision to all readers of the means of safeguarding the home and the person. E. H. A.

Measles Omitted from Compulsory List of Infectious Diseases.

The *British Medical Journal* notes that the Penzance Town Council has decided to omit measles from the list of compulsory notification diseases, and mentions the fact that while in the last year or so 105 districts had adopted compulsory notification in this disease, it had been subsequently revoked in nearly a third of the cases. The reason for this is that without provision for prompt hospital isolation little or no value attaches to the notification of disease, and on the other hand entails considerable expense.

E. H. A.

Mortality Among Physicians.

In the unpleasant competition for the highest death rate among professional men, Dr. Thalam states in the *Deutsch Medizinical Zeitung* that the death rate of physicians stands at 9.66, as compared with 8.21 among lawyers and 5.33 for the clergy. Among all classes of professional men the most frequent cause of death are referable to the heart. Other most frequent causes are gout, diabetes, diseases of the genito-urinary tract and suicide. During the last ten years the percentage of suicides has increased, while in a corresponding ratio the number of deaths from alcoholism has been diminished.

E. H. A.

**REPORT OF DEATHS FROM CONTAGIOUS DISEASES IN ONTARIO FOR THE MONTHS OF
JUNE AND JULY, 1898.**

PREPARED BY P. H. BRYCE, M.A., M.D., DEPUTY REGISTRAR-GENERAL.

JUNE, 1898.

Total Population Reporting.	Total Municipalities Reporting.	Total Deaths Reported.	Scarlatina.	Rate per 1,000 per Annum.	Diphtheria.	Rate per 1,000 per Annum.	Menses.	Rate per 1,000 per Annum.	Whooping Cough.	Rate per 1,000 per Annum.	Typhoid.	Rate per 1,000 per Annum.	Tuberculosis.	Rate per 1,000 per Annum.
1,070,085 74%	621 88%	222	9	0.06	92	0.2	7	0.05	7	0.05	10	0.07	100	1.1

JULY, 1898.

1,844,912 80%	688 92%	224	15	0.09	16	0.1	18	0.1	12	0.08	20	0.1	143	0.9
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Population of Province 2,263,402
Municipalities of Province..... 745

Proceedings of Societies.

THE CANADIAN MEDICAL ASSOCIATION, QUEBEC,
AUGUST 16th, 17th and 18th.

ON the 16th ult. the thirty-first annual Convention of the Canadian Medical Association opened in the Convocation Hall of Laval University, Quebec, under the chairmanship of the President, Dr. J. M. Beausoleil, and was attended by a great many physicians from Quebec, Ontario, Nova Scotia, Prince Edward Island, and the United States. In the hall which adjoins the Convocation Hall there was an exhibition of surgeons' and physicians' appliances and requisites, as also quite a large pathological exhibition.

In the Convocation Hall there was a very pretty display of flowers, palms and other decorations, including festoons of ever-green, which gave evidence of great taste, and reflected much credit upon the gardeners of the Sacre Cœur Hospital of St. Sauveur. In the gallery too there was stationed an orchestra, which from time to time discoursed music. Altogether every arrangement which could possibly be made to promote the pleasure and comfort of the delegates was assiduously looked after by the local committee, which was constituted as follows: Dr. C. S. Parke, Chairman; Dr. Marois, Secretary; Drs. Ahern, Chs. Verge, A. G. Belleau, E. Turcot, Robitaille, C. C. Sewell. These gentlemen deserve all praise for their exertions.

When the session opened, Dr. Parke, chairman of the local committee, made a short and informal, but appropriate address of welcome to the delegates. He said that he had hoped that His Worship, the Hon. S. N. Parent, Mayor of the city, would have been present to welcome them, but he had been called away by departmental business. However, he cordially greeted them all, and hoped that they would derive much pleasure and instruction from their visit to Quebec. In such time as they could spare from their deliberations, the local physicians would have the greatest pleasure in showing the visitors the glories of Quebec, and sights of which few cities in the world can boast. The noble river that flowed at his feet would also, he said, be called upon to contribute to the entertainment, and an opportunity would be found to show those present the famous Falls of Montmorency, etc. He added that though, as he had remarked, the members would not have the pleasure of being welcomed by His Worship the Mayor, still their loss was not so great as it might have been, since Alderman Martin

Foley was present to replace him. In conclusion he thanked his audience for the very attentive hearing they had given him, and once more bid them welcome.

Alderman Foley then in the name of the people offered to the delegates the following civic address of welcome.

To the President, Officers and Members of the Canadian Medical Association :

LADIES AND GENTLEMEN,—In the absence of His Worship the Mayor, who has been called outside of our limits on an official visit as a Minister of the Crown, it is my pleasant duty as pro-Mayor to welcome you and to tender you the hospitalities of the city of Quebec.

Our people fully appreciate the priceless value of gatherings like this one, composed of men who represent the progressive march and the scientific attainments of the medical profession in Canada.

You are welcome in our midst, and more especially to this ancient seat of learning founded by Monseigneur de Laval and which has made Quebec famous as the pioneer of higher education in the New World.

We know that your learned deliberations will have beneficial results for the progress of science and the relief of suffering humanity.

I am sure I am voicing the sentiments of our population when I express the hope that the name of Quebec will be inscribed on your list and on the list of all kinds of associations similar to yours, as the favorite spot where assemblies like this to be held in future will be pleased to meet; a centre of attraction to which everybody should turn, and which offers to the scientist, worried by the labor and fatigue of deep research and unceasing mental efforts, the refreshing breezes of our mighty river and the unrivalled scenery, which captivates the eye, from the heights of the historical cliff of Quebec.

Gentlemen, you have our best wishes for the success of your convention.

We hope you will make it last as long as possible, for we are sure that your clients have agreed to give you a prolonged furlough and that Providence will see that your absence is not detrimental to their health.

Dr. M. J. Ahern, representing the Medical Faculty of Laval University, then presented its greetings in the following happy retrospective remarks :

“The few words I have to say to you have been rather pretentiously styled an address in this programme—an address of which I may say with Goldsmith, that ‘if you find it wondrous short it shall not hold you long.’ Mgr. Laflamme, the Rector of the University, was to have met you here to-day, but he is unavoidably

absent, so that in his name and that of the Laval University, of Quebec, ever ready to extend the right hand of fellowship to all seekers after truth, I have the honor and the pleasure of bidding you a hearty welcome and of offering to you the freedom of the museum and all the facilities at our command for the fulfilment of those important duties you have assembled here to perform. Nor is this the first time that these walls have re-echoed the scientific discussions of this Association. One memorable morning thirty-one years ago, when the Confederation which binds together as one the different provinces which comprise this great Dominion of ours, was but a few days old, there met in this building representative medical men from all parts of the country, who did not separate until they had founded the Association which I have now the pleasure of addressing. How well these men did their work, and what life they infused into their offspring is shown by the vigorous condition of this Society, after an existence of more than a quarter of a century. Some of those men are here to-day. Once more, gentlemen, Laval University bids you a hearty welcome and hopes that your stay here will conduce to our improvement, and may also increase your happiness."

After these addresses, which were briefly and appropriately acknowledged by the president, the delegates adjourned to the various museums, which they visited and highly admired, and then all went downstairs to the University gardens, where they were photographed in a group by Mr. Livernois. They then returned to the main hall, where, after some routine business, including the reception of visitors, election of members, etc., the president, J. M. Beausoleil, M.D., Officer of the Academy, delivered the

PRESIDENT'S ADDRESS.

GENTLEMEN,—It is now almost thirty-one years since our Association sprang into existence in this hospitable and picturesque city of Quebec. Professional brotherhood then received recognition in all quarters of this country. The Canadian medical family was then formed. Now it may march onward to the accomplishment of the object for which it was given life: The promotion of science; the protection of professional interests. A distinguished man, one of the fathers of Confederation, Dr. Tupper—Sir Charles Tupper—was our first President. Since that time, a great number of distinguished physicians have succeeded him in this chair. Indeed, I am greatly confused and moved, though profoundly grateful, when I consider the honor done me by calling me to preside at your meetings. There could have been no question of personal merit; your kindness, gentlemen, directed your choice. I am an admirer and sincere friend of my predecessors, and I desire to follow in their footsteps. I ask you, therefore, to allow me for a few moments, to dwell upon that part of our programme, which touches upon: Unity in the Canadian Medical Profession. Gentle-

men.—If there is a profession that requires liberty of practice in any country, it is certainly the profession of the physician. French civil law not being recognized in all the Provinces of the Dominion, it is easy to understand why a lawyer from Quebec may not practise his profession in Ontario; but there is only, and can only be, the same anatomy and the same physiology for all the Provinces; the physician is the same everywhere. Why, therefore, this anomaly, that a Canadian physician may not practice in every quarter of the nation's territory? This country, which is so dear to us, can she not nourish her children without dividing them into castes? Why should a practitioner of Ottawa cease to be a practitioner in Hull? Because the British North America Act reserved to the Provincial Parliaments the right, the exclusive right, to legislate in educational matters. Consequently, instead of one Medical Council for the entire nation, we have as many Medical Corporations as there are federated Provinces; and everywhere, of course, as many different legislative enactments. This lack of uniformity has delayed the accomplishment of our professional unity. Notwithstanding this drawback, it cannot be denied that medical science has made real progress in this young country. A loftier idea of medicine, inspired by more intimate relations with the European schools, has given wonderful stimulus to our institutions. The number of schools has diminished, but the quality of the teaching has been made better. Admission to study has been rendered more difficult. The courses, or lectures, consisting of three terms of six months each, have been replaced by lectures which extend over a period of four years. The progress made during twenty years in medical learning has demonstrated the necessity of subdividing the fundamental matters. As a result histology, general pathology, gynæcology, internal and external, pathology, ophthalmology, bacteriology, etc., etc., are the subjects of special teaching. Heated theoretical debates of olden times are now decided in the laboratory positively but calmly. To the glory of our great schools must it be said, their students carry off in a few months, and with marked ability, the diplomas of Paris, of London and of Edinburgh. Every year men of learning from France, Germany, England and the United States honor us by their visits: last year the British Medical Association held its scientific meetings in our midst. A generous rivalry reigns amongst us. In a word, we have reason to be proud of the progress which we have made: and if, as we hope, the march continues onward, if we know how to concentrate our forces, the Canadian Medical Association will make itself felt in the grand scientific movement that stirs the world. At the sight of the results obtained, and in order to obtain these others that we are now seeking, we ought to consider that it is the proper thing to demolish the barriers that divide the Provinces. Is it not time to give free scope to healthy competition? Why any longer place restraint on the legitimate aspirations of our youthful students? Are our medical schools

not tired of the restrictions imposed on the professional liberty of their students? Are our Medical Boards not dissatisfied with the small importance given to the licenses that they confer? Without doubt. And a proof of this is the fact that the majority of the Provinces of Canada have signed the preliminaries of an interprovincial understanding in regard to practice. Our great sister Province of Ontario seemed to desire to remain on the threshold, but she had been stopped, not on account of ill-feeling, but on account of considerations of special legislation, of which she alone could be the judge. To-day she shows excellent dispositions; the Medical Council of that Province has sent a delegation of distinguished men, who are ready, I have no doubt, to bring about the union of the Canadian medical profession. Gentlemen, before ending, I would like to draw the attention of the Interprovincial Registration Committee to the want of preparation of the candidates seeking admission to study medicine. In general, the candidates answer fairly well the questions on languages, history, geography and others, but they are weak in physics, chemistry and natural history. Why should these matters not be the subjects of examination for all the candidates and be of practical value? Such a method would greatly help the work of the student as well as that of the professor. You all know how painful it is to teach a student who is insufficiently grounded. In France a bachelor is only admitted to study medicine after having passed a year in the Faculty of Physical Sciences, and in the Chemical Laboratory, after having also, during that year, studied the natural sciences and passed examination on these matters, that are regarded as elements in the preparation for study of medical science. Without going so far, let us at present profit by the lessons of experience, and endeavor to make easy for our students the noble, but arduous work which they have undertaken. Gentlemen, the considerations that have prevented a great number of physicians from working energetically for the adoption of only one license which would be recognized throughout all Canada are:—(1) Restrictive legislation granted to each Province by Federal agreement. (2) The fear of destroying Provincial autonomy created by this agreement. To the first objection, I answer that it is true the Federal Parliament cannot legislate in educational matters belonging to the Provinces, but a question that interests two or more Provinces, or better still all the Provinces of our Dominion ceases, *ipso facto*, to be a Provincial question; it becomes Federal by the coalition of all the local forces. Who can prevent all the Provinces, united, from obtaining from the Federal Parliament the approbation of their union? Moreover, without adopting this means the Provinces of Manitoba, Quebec and New Brunswick have already enjoyed reciprocity in regard to their licenses; and nobody cried out at the illegality. To the second objection, we may answer that there is no question of destroying Provincial autonomy. In fact, there is nothing to

prevent the maintenance of the local organization whilst, at the same time, allowing it to delegate its powers to some of its members, who would be charged to form a general commission for the whole Dominion. You all know the old saying: "Where there is a will there is a way." Let us understand one another, and it will be easy to make the competent authority understand us. Gentlemen, when we shall have obtained for the whole of British North America a central bureau of admission to study, a board of medical examination for the conferring of a uniform license to practice medicine, then, I say, we shall have come upon an era of progress in the annals of Canadian medicine. Our diploma of practice shall be recognized throughout the whole of the British Empire and will meet with the respect of the scientific world, and the Canadian Medical Association will have deserved well of the country. And your humble President will be happy to find that he had helped, ever so little, in the solution of that great national question: "Unity of Rights and the Freedom of Practice of our Profession."

Upon its conclusion, Dr. Roddick rose and said that in his address the President, whom he sincerely thanked, had touched upon a subject which he himself had long advocated—a general examination and registration common to all the Provinces. He was pleased to-day to find that those whose opposition he had most feared—the men from Ontario—entirely favored the scheme. Accordingly, he hoped at no distant date to see matters so arranged that a man holding a diploma in any one part of Canada might practice in any other part of it, or, in fact, anywhere in the British Empire. Such a consummation would mark a new era in the history of Canada, especially as regards her doctors. The Association had been born in Quebec and had since done great things. He hoped this new idea which had first taken root and been seriously considered in Quebec, would likewise flourish as had the Association, and that this great project might speedily come into operation. He then moved a hearty vote of thanks to the worthy President, which being put to the meeting by Dr. Thorburn, of Toronto, was carried unanimously.

The first paper presented was one by Dr. A. Rosebrugh, of Toronto, on "The Duty of the Medical Profession in the Question of the Treatment of Inebriates." It was read by title by Dr. F. N. G. Starr, of Toronto, the energetic secretary of the Association, in the absence of Dr. Rosebrugh. This paper we will take pleasure in publishing in full in our next issue.

The following committee were named to study and report upon the matter:—Drs. Thorburn, Toronto; Muir, Truro, N.S., and Adami, of Montreal.

The next paper taken up was one by Dr. G. Sterling Ryerson, of Toronto, on "Monocular Diplopia." This difficult optical subject was handled by the author in a masterly and learned manner, which excited general admiration, and it was universally agreed

that, as stated by Dr. Ryerson, the matter was one to which by far too little care and attention were devoted. This paper also we will publish next month.

Hon. Dr. Marcil followed with a paper on "Septic Peritonitis, Consecutive to Appendicitis, and its Surgical Treatment." In his treatise, which was in French, Dr. Marcil gave a most interesting description of the treatment of the disease, consisting of an operation and washing the peritoneum. His opening remarks showed that the operation was first practised in 1893 by Dr. Berger, of Paris, but unsuccessfully. However, he fully succeeded in 1894. In 1893 Dr. Reischel, of Germany, had declared the operation was useless. In 1897 Dr. McCosh, of New York, successfully performed the operation, but in August, 1896, Dr. Marcil himself successfully performed the operation on a young man in Terrebonne and so seems to have fairly earned the credit of having himself performed the first successful operation of the kind on the continent of America.

Dr. Ferd. C. Valentine, of New York, subsequently gave a most interesting and instructive talk on the subject of the Genito-Urinary instruments required by the general practitioner, and illustrated it by a variety of catheters and other apparatus. Dr. Valentine referred in the strongest terms to the fact that most doctors shrink from the expense necessitated by the purchase of the best instruments to treat the dreadful diseases of the organs referred to, and condemned such parsimony in the very strongest terms. If it were not for this, many who are to-day suffering the most horrible torments might be cured, and he hoped that the matter was more intelligently treated here than on the other side of the line. Dr. Valentine has also kindly promised to let us publish his paper next month.

Dr. Smith, of Orangeville, exhibited a number of peculiar gallstones met with in practice, and made a few general remarks concerning them.

One of the most interesting papers of the afternoon, for which we unfortunately have no space at our disposal, was read by Dr. Thorburn, of Toronto, who dealt with "The Physician and Life Insurance." In the course of his remarks Dr. Thorburn mentioned that the risks at present held in Canada by British and Canadian Companies is \$344,314,448, and that the total amount held in the United States is \$5,183,694,250. The very fact that there was so much money locked up in this business shows how much depends upon the good judgment of the profession, and how much reliance is placed in it. A number of other statistics were also given, but we cannot go into them at greater length. However, in connection with the subject Dr. Thorburn very vigorously protested against physicians permitting either insurance companies or candidates to influence them in their examinations and reports. His appeal was almost purely one for thoroughness and faithfulness in examina-

tion, and he indignantly scored those who so often gave the patient a thump on the back and another on the chest and let them go.

Dr. Mullen made some remarks very much in the same sense.

Dr. Muir also added a vigorous protest *re* those doctors who make unfair examinations, and who treat men banded together in associations at ridiculously low fees.

Dr. Dickson advocated the establishment of a standard and uniform scale of fees for the government of doctors in such cases.

Dr. Gauthier made an extremely warm attack on those doctors who indulge in lodge practice, and claimed that they were prostituting the profession by accepting fees of \$1 and even 50 cents for examinations. Some of them, however, even did worse than that, as there was for instance one society he could name in which the candidate did not have to pay if not accepted. He wanted to know, too, how such things could be stopped when the presidents of colleges and medical councils acted in this very manner, and threw out some very broad hints which created quite a sensation. He was in favor of a minimum fee of, say, \$5 being established, even if the insurance applied for be only \$1,000.

Dr. Valentine apologized for having, though a stranger, interfered in the discussion, but said that he would like to see a more faithful system of examination enforced. There should be a more rigid examination as to gonorrhœa and other diseases of the genito-urinary organs. In Dr. Valentine's opinion 80 per cent. of children who lose their eyesight after birth, and a very large proportion of deaths are due to such diseases. In cases, too, of suicide, etc., he would like to see coroners instructed to examine the genito-urinary organs of the victims, for he was confident that therein the cause would frequently be found. In fact, so strongly was he convinced of this fact that he had some years ago read before the Anglo-American Medical Society at Berlin a paper on the "Melancholia of Gonorrhœa," and of those who then strongly ridiculed him three had since published papers on the same subject.

Dr. Thorburn said that some means of stamping out cheap doctors must be found. However, with regard to Dr. Valentine's remarks, he must say that Canadians do not appear to be nearly so immoral and subject to venereal diseases as those to whom the latter gentleman referred. He was quite confident that gonorrhœa was not by any means the disease most prevalent among Canadians, and that 80 per cent. of premature deaths could not be traced to it in Canada, as they could be in New York, according to Dr. Valentine.

Before the adjournment the election of the Nominating Committee was proceeded with, and resulted as follows:—Dr. Muir, Truro, N.S.; Dr. McNeil, P.E.I.; Langis, New Brunswick; Roddick, Montreal; Bell, Montreal; Small, Ottawa; Ryerson, Toronto; Williams, Ingersoll, Ont.; C. S. Parke, Quebec; Thorburn, Toronto:

Marcil, St. Eustache; Myers, Toronto; Wyatt Johnston, Montreal; Dickson, Toronto; Worthington, Sherbrooke.

The scrutineers appointed were Dr. W. A. Young, Toronto, and Dr. Muir, Truro, N.S.

SECOND DAY—MORNING SESSION.

On Thursday the meeting opened at 9.45 a.m. sharp. The Secretary first read the minutes, after which the regular business was proceeded with.

The following members were added to the attendance roll:—Hon. Dr. Guerin, M.L.A., Montreal; Drs. Frank R. Foster, New York; Henry P. Wright, Ottawa; Pierre Ulderic, P.inceville; E. McLaughlin, Morrisburg; Edward Marcotte, St. Basile, Portneuf; A. DeMartigny, Montreal; J. Dufresne, Deschambault; Charles F. Martin, Montreal; C. W. Wilson, Montreal; A. Gandier, Sherbrooke; H. A. Lafleur, Montreal; Sir William Hingston, Montreal.

The first paper read was one by Dr. James Bell, of Montreal. It was, of course, a purely technical one, of little interest to the general public, but valuable in a pathological sense to the profession, the subject being "A series of cases of calculous obstruction of the common bile duct, treated by incision of the duct and removal of the stones."

All those who were present, including the visitors, were loud in their praises of this paper. They also expressed their surprise at the large number of cases of this unusual condition observed in a city of the size of Montreal.

At 10.30 the members adjourned in order to take part in the excursion to the Quarantine Station, which left the Queen's Wharf at 11 a.m.

The trip to Grosse Isle was one of the most pleasant imaginable, and was participated in by fully 200 persons, including a large number of ladies, who lent color and brilliancy to the occasion. The steamer, too, was comfortable and roomy in the extreme, the *Aberdeen* having been courteously placed at the disposal of the Association by the Department of Marine and Fisheries. Commodore J. U. Gregory and Mr. O'Farrel accompanied the party, and did all in their power to promote the general enjoyment, while the members of the local committee were perfectly indefatigable.

At noon a splendid lunch was served on board the *Aberdeen* by Mr. Douglass, who was aided by Mrs. Douglass and a large staff of waiters. It is needless, after mentioning this fact, to state that the luncheon was as fine as anyone could ask for, and it was beautifully served.

Arrived at the Island the visitors inspected the Quarantine Station from beginning to end, including the passengers' quarters, disinfecting and fumigating apparatus, laboratory, etc., and univ-
ersally pronounced it equal to any on the continent, and a tribute to

the skill and zeal of Dr. Montizambert and his able staff of assistants. The burying ground, too, in which 5,424 victims of the typhus fever plague of 1847 lie buried, was likewise visited, and was viewed with the greatest interest. Shortly before four o'clock the return journey was begun, and as the steamer left the Quarantine Station three hearty cheers were given for Dr. Montizambert, who, with Dr. Church, took the visitors in hand at the Island. After a remarkably pleasant sail the *Aberdeen* returned to Quebec at 6.30 p.m.

On the return trip meetings of the Nomination Committee on International Registration were held, and they then finished their labors.

EVENING SITTING.

Amongst other papers read at the evening sitting was a most interesting one on the "Surgical Treatment of Empyema," by Dr. J. M. Elder, of Montreal. The doctor modestly declined to class his talk as a paper, saying that it was merely an opening of the discussion and grouping of heads upon which he desired to elicit debate and information. The discussion which followed was taken part in by Drs. Muir, Dickson, Hingston and Roddick. Dr. Muir preferred the use of a metal tube to a rubber one, and Dr. Roddick was of a similar opinion. Dr. Hingston believed in operating for chronic cases, and speaking on the subject of washing out the cavity, said that he believed in the washing with sterilized water, or in some cases a mild solution of carbolic acid. Dr. Roddick described his success with the use of the aspirator for children.

Dr. W. H. Drummond read an exceedingly fine paper upon "The Pioneers of Medicine in Quebec," which displayed a vast amount of original historical research. It dealt with the early history of the profession in this country as follows:

MR. PRESIDENT AND GENTLEMEN,—Meeting as we do, here at Quebec, the very cradle of our nationality, the place and the occasion is, I think, peculiarly appropriate for recalling to your memory a few of the old-time worthies of our profession; the men who were first to plant the Æsculapian banner on the soil of Canada. It is difficult to write or say anything about the ancient city of Quebec without picturing some of the great events which have occurred in her history, for history surrounds us on every side, from the banks of the St. Charles, where Jacques Cartier held his conference with King Donnacona, and erected the sacred emblem of Christianity, to the Plains of Abraham, where fell the gallant Wolfe and the chivalrous Montcalm—but I must forbear, and pass on at once to the subject in hand. It was, indeed, a motley crew that followed in the train of the French merchants, who were first attracted by visions of the fabulous wealth to be acquired in trading with the aborigines of the New World. Warriors fresh from the battle-fields of Europe, men of the proudest

lineage of France, and who had breathed the atmosphere of courts, missionaries whose souls were fired with zeal at the alluring prospect of evangelization awaiting them in the forests of America, and adventurers, daring as ever, followed the standard of William of Normandy. Picture to yourselves, if possible, the harbor of Port Royal, or what is now Nova Scotia, on the morning of July 27th, 1606. There is unusual bustle and excitement down by the shore, where the little ship *Jonas*, commanded by Captain Poutrincourt, is engaged in discharging her complement of passengers, mostly hailing from La Rochelle. Among the band of newly-arrived emigrants there is one sturdy figure, which I want you to study well, for it is the figure of Louis Hebert, the pioneer physician of Nouvelle France. We can imagine this young fellow, fresh and enthusiastic, as he strides along, gazing with curious and occasionally amused eyes on the strange sights surrounding him on every side, and startled when addressed by some wild-looking *coureur de bois* or fur-trader, whose semi-Indian attire and savage bearing seemed so inharmoniously to blend with the language of France. From what we are told by L'Escarbot, the historian of the expedition, very little, if any serious work was done at Port Royal during the succeeding fall and winter. Hunting and feasting, in which, doubtless, our great-great-grandfather bore his part, were the chief occupation of the little colony, and it was only when the wine and kindred supplies became exhausted that the associates of the *Jonas* dropped into the current setting towards Quebec, and with them drifted in the following spring, Dr. Louis Hebert. Quebec at this time, and even some years before, had been merely a fur-trading centre, frequented by roving bands of Frenchmen, who came to barter with the Indians. Hebert, besides practising his profession of physician, seems also to have been engaged in ordinary business enterprises, for we are told by Abbé Ferland that he "began in 1617 to grub up and clear the ground, which forms the site of the present Catholic Cathedral and Seminary, and constructed a house and the first mill erected in the colony, thus becoming not only the premier citizen of Quebec, but also of Canada." And here it may be well to note that the first time a notary's services were put into requisition in Canada was at the instance of the heirs of Hebert, the physician, thus proving that in this country the profession of medicine antedated that of law. Contemporary with Hebert was the surgeon Bonnerme, who came with Samuel de Champlain, when the latter founded Quebec in 1606. Evidently all was not peace in the camp of Champlain, for shortly after his arrival some of his followers hatched a murderous plot against the life of the great navigator. The scheme, however, leaked out, and the ringleader was arrested, found guilty and executed. In teaching of the children and nursing of the sick, and the faithful manner in which the original intentions have been carried out, even to the present day, entitle the good sisters to a place among the medical pioneers of this Province. In 1690 when

Phipps knocked in vain at the gates of the ancient city, the population under the vigorous administration of Frontenac had increased to 1,500, and education had made considerable advance. The Jesuits College, Seminaire des Missions Etrangères, and Petit Seminaire were on a firm footing, and we find practising at Quebec Drs. Gervase Beaudoin, physician to the Ursuline Nuns, Timothé Roussel, physician to the Hotel Dieu, Nicholas Sarrasin, Jean Leger de la Grange, Armand Dumanin and Pierre du Roy. Of the number Sarrasin was perhaps the most noted. Born in France in 1659 he emigrated to Canada shortly after completing his medical course, and died at Quebec in 1736. He was physician to the king, a member of the Sovereign Council, and published during his long lifetime a number of volumes of natural history, botany and medicine, besides discovering the pitcher-plant, which perpetuates his memory in the name "Saracenia Purpurea." When Peter Kelm, the Swedish botanist, visited Canada in 1749, seven years after the discovery of the Rocky Mountains by La Verendrye, a native Canadian, his constant companion during many a woodland ramble was Dr. Gauthier, himself an accomplished botanist, and from Dr. Gauthier, Kelm acquired most of the information which appeared some years later in the shape of two large volumes illustrated with plates. A well-known surgeon who figured during the historic period before and following the conquest of Canada by the British in 1759 was the famous Phillippe Badelard. Badelard was present at the battle of Abraham, and seeing that the French troops to which he was attached were giving way, directed his steps to the rear, where he met a wounded Highlander named Fraser, who was bleeding profusely. The doctor immediately attended to the soldier's injuries and then gave himself up to Fraser as a prisoner of war. Both Dr. Badelard and John Fraser lived to a very advanced age, and ever maintained for each other the closest ties of kindly friendship. Dr. Badelard was a person of most gentlemanly presence and constantly wore a sword, as was customary with the Bourgeoisie de Paris. A contemporary of Badelard, Dr. Arnoux, lived for many years in Quebec, and it was in Arnoux's surgery that Montcalm's wounds were dressed while the great soldier was being borne through St. Louis Gate. Another well-known surgeon of this period, De Lejuste, of the French army, came to Quebec after the fall of Louisburg in 1758, and later among the noted medical men of the Province we find Dr. Francois Blanchet, the father of the first Education Bill in Lower Canada. The cause of education had also in Dr. Jean Baptiste Meilleur an able and successful advocate. Meilleur, who was born in 1796, and died in 1830, had the honor of being the first Superintendent of Public Instruction for Lower Canada, and during his lifetime contributed many articles to *Le Journal de Medicine*. He was also a voluminous writer on geology, botany, agriculture, and other scientific subjects, and took a prominent part in the foundation of L'Assomption College. Dr. Jacques

Labrie, born in 1783, and who graduated at Edinburgh, sat for several years in the Lower Canadian Assembly, and besides doing good work as a medical man, also wrote a "History of Canada," which, while awaiting purchase by the Government, was unfortunately destroyed by fire at St. Benoit during the Rebellion of 1837. The mention of 1837 will recall to the minds of every student of Canadian history the names of at least three members of our profession, who were prominent among the agitators of that stormy period, namely, Nelson, O'Callaghan and Chenier. Wolfred Nelson, although an English-speaking Protestant, warmly espoused what was then termed the national cause, and led the insurgents at the battle of St. Denis, where the British forces were obliged to retreat. Twice he was elected to the Presidency of the Provincial College of Physicians and Surgeons, and he also sat in the Lower Canadian Assembly. He constantly contributed to the medical press articles on preservation of public hygiene, reports on penitentiary prisons, etc., and although he suffered for a while political banishment, yet his genuine disinterestedness and other noble qualities ever retained for him a very large share of public esteem and respect. Dr. Edmund O'Callaghan, a brilliant Irishman, was a member of Parliament, editor of the *Montreal Vindicator*, and author of several historical works. He was also an active participant in the troubles of 1837, after which he took up his abode in the United States, and the gallant Chenier immortalized himself by dying a soldier's death at the battle of St. Eustache. A man who followed the more peaceful paths of life was Dr. Andrew Fernando Holmes, born at Cadiz in 1797. Dr. Holmes, who was one of the foremost medical men of his time, collected while a student in Scotland an extensive herbarium of plants, which later on he presented to McGill University. He was a recognized authority on botany, geology and mineralogy, and contributed many articles on these subjects, as well as writing "The History of Cholera in Montreal." In 1827 he established with others "The Medical Institution," which finally in 1828 merged into that of McGill, of which Dr. Holmes was Dean, and where he lectured on "Practice of Medicine" till the time of his death.

The doctor continued his sketch down to comparatively modern times, dealing with Drs. Wolfred Nelson and Chenier, and with others of as late a date as Drs. Morrin and Marsden, of Quebec.

ELECTION OF OFFICERS.

The Nominating Committee reported the following list of officers for the coming year, which was adopted:

President—Dr. Irving H. Cameron, Toronto.

Vice-Presidents—

Prince Edward Island—Dr. J. McLeod, Charlottetown.

Nova Scotia—Dr. Kirkpatrick, Halifax.

New Brunswick—Dr. L. N. Bourque, Moncton.

Vice-Presidents—(*Continued*)

Quebec—Dr. Jas. Bell, Montreal.

Ontario—Dr. J. A. Williams, Ingersoll.

Manitoba—Dr. R. S. Thompson, Deloraine.

North West Territories—Dr. Lindsay, Calgary.

British Columbia—Dr. S. J. Tunstall, Vancouver.

General Secretary—Dr. F. N. G. Starr, Toronto.

Provincial Secretaries—

Prince Edward Island—Dr. S. K. Jenkins, Charlottetown.

Nova Scotia—Dr. W. G. Putnam, Yarmouth.

New Brunswick—Dr. T. D. Walker, St. John.

Quebec—Dr. Charles Marcell, Ste. Eustache.

Ontario—Dr. C. R. Dickson, Toronto.

Manitoba—Dr. George Chigan, Verden.

North West Territories—Dr. Lowe, Regina.

British Columbia—Dr. R. E. Walker, New Westminster.

Treasurer—Dr. H. B. Small, Ottawa.

Publishing Committee—Dr. A. D. Blackader, Montreal; Dr. J. L. Davison, Dr. W. A. Young, Toronto; and the General Secretary and Treasurer.

By-laws—Drs. C. S. Parke, Wyatt Johnston, Jas. Bell, C. R. Dickson, G. S. Ryan, W. W. Dickson, M. Beausoleil, and the President and Secretary.

The next place of meeting is Toronto.

THIRD DAY'S SESSION.

By far the most important meeting of the Canadian Medical Association, so far as general work is concerned, was the closing session, which opened at 9.30 a.m. on Friday, and closed shortly after noon. In this short time an enormous amount of work was achieved, and if all the important measures in which the first steps were then taken are pushed to their legitimate conclusion, the medical profession, and the public in general, will long have occasion to remember this conference just brought to a close.

The first business of the day was the exhibition by Dr. Laplace, of Philadelphia, of an ingenious instrument for the treatment of bowel wounds, or, to use the technical expression, for intestinal anastomosis. It was exhibited by its use on a chloroformed dog.

Dr. T. D. Reed, of Montreal, was then called upon for his remarks upon "The British Pharmacopœia." He said that it was periodically revised, but that at the last revision in 1885 there were few changes. In that of 1898, however, 189 medicines are omitted, 80 new remedies are added and 180 changes are made. All of this necessitates the very greatest care and attention on the part of the practitioner; it is manifestly important that there should be absolute uniformity in the writing and filling of prescriptions. For this reason then the last corrections to the British

Pharmacopœia must be carefully studied, and it should be adopted as the absolute standard for the Dominion. Accordingly, in view of all these considerations, and the fact that no date has yet been settled for the coming into force of the new British Pharmacopœia, he moved :

That, "whereas a revised edition of the British Pharmacopœia has been issued containing numerous and important changes, and whereas uncertainty exists as to the date when the British Pharmacopœia, 1898, is to be considered in force; *Resolved*,—That the Canadian Medical Association in annual meeting assembled, recommends that October 1, 1898, be taken as the date on and after which, in the absence of instructions otherwise, physicians' prescriptions should be compounded with the preparations of the British Pharmacopœia, 1898."

Dr. Roddick also spoke at some length on the matter and read a communication from Great Britain on the subject, after which he announced his intention to move the appointment of a committee to consider the matter.

Dr. Reed, resuming, said that as this was a Canadian Association it should be loyal to the British Pharmacopœia, and announced his willingness that such a committee should be appointed. In some of the Provinces the British Pharmacopœia was not universally followed, as in Ontario, for instance, though it should be so.

Dr. H. B. Small, of Ottawa, said that the British Pharmacopœia was official in Ontario unless otherwise ordered by the Council, and asked where and when it was not followed in Ontario.

Dr. Reed replied that one instance he had in mind occurred two or three years ago in Ottawa, which was in Ontario, and that it took place in the Department which deals with the adulteration of food, etc. A number of tinctures were bought all over the Dominion to be tested, and though they did not conform with the British Pharmacopœia, they were allowed to pass because they were up to the standard of the United States Pharmacopœia. Some time ago the sentiment in Montreal was tested by means of post-card circulars, and ninety-nine per cent. of the doctors who replied favored the British Pharmacopœia.

Dr. Beausoleil made a few remarks upon the importance of settling this subject, and hoped that no means of doing so would be neglected.

Dr. MacNeil said that the United States Pharmacopœia included all that was best in the British, French and German Pharmacopœia, and that it was very extensive and full of information. If the British Pharmacopœia was to be taken as the standard, it should be consolidated, improved and extended.

Dr. Roddick moved the appointment of the following committee to impress the matter upon the attention of the Federal authorities :—Drs. T. D. Reed and A. D. Blackader, Montreal; H. B. Small, Ottawa; Marois, Quebec; I. H. Cameron, F. N. G. Starr, and J. A. MacCallum, Toronto. This motion was also adopted. The

other very highly important matter which came before the meeting was the report of the Committee on "International Registration."

The report was highly favorable to the project in every respect and not only was it so but it suggested admirable bases for the rapprochement, the report being essentially in the following sense:

I. There shall be accepted for matriculation:—B.A. From any recognized university, or in lieu thereof, first class or Grade A Provincial certificate in any of the Provinces, for teachers' license, or an examination in the following branches, which shall be compulsory and conducted by the various councils of the Educational Departments of each Province, viz.:

1. English grammar, composition, literature and rhetoric.
2. Arithmetic, including vulgar and decimal fractions and extractions of the square and cube root and mensuration.
3. Algebra to the end of quadratic equations.
4. Geometry. First three books of Euclid.
5. Latin. First two books of Virgil's *Æneid* or three books of Caesar's *Commentary*, translation and grammar.
6. Elementary mechanics of solids and fluids composing the elements of statics of dynamics, hydrostatics and elementary chemistry.

7. Canadian and British history with questions in modern geography.

8. Translation and grammar of any two of the following subjects, Greek, French and German.

8. In lieu of the above we also recommend that any student presenting a certificate after examination from the professors of any standard or approved university in Her Majesty's Dominion, of having completed of said university, be accepted in any of the Provinces of Canada, for matriculation and registration.

Fifty per cent. of the marks in every subject shall be required for a pass and 75 per cent. for honors.

II. Professional Education. (a) The curriculum of professional studies shall begin after the passing of the matriculation examination and registration, and shall comprise a graded course in the regulation branches of four yearly sessions of not less than eight months in each year.

(b) The subjects to be Anatomy, Physiology, Chemistry, *Materia Medica*, Therapeutics, Practical Anatomy, Histology, Practical Chemistry, Pharmacy, Surgery and Chemical Surgery, Medicine and Clinical Medicine, including diseases of eye, ear, throat and nose, mental diseases, obstetrics, diseases of women and children, medical jurisprudence, toxicology, hygiene, pathology, including bacteriology.

(c) That at least twenty-four months out of the graded four years of eight months each be required for attendance in hospital practice.

(d) That proof of attendance on not less than six cases of obstetrics and two post mortem examinations be required.

III. Examinations (a). All candidates for registration in the various Provinces in addition to having fulfilled the foregoing requirements shall be required to undergo examination before examiners to be appointed in each of the Provinces by their representative councils.

Fifty per cent. shall be required for a pass and 75 per cent. for honors.

IV. Your committee recommend that as soon as the foregoing basis of agreement is ratified by the councils of the various Provinces, each council shall endeavor to secure legislation to authorize the carrying out of the foregoing preliminary and professional curriculum and to embody the following to secure a Board of Examiners for a Dominion qualification, viz :

"That so soon as the various councils of the Dominion shall establish an Examining Board for the Dominion, conducted by examiners appointed by the Medical Councils of the several Provinces, their candidates passing a successful examination before the said Board and obtaining a certificate to that effect, shall be entitled to registration in the several Provinces of the Dominion on payment of the registration fee, providing he is not guilty of infamous or disgraceful conduct in a professional respect."

Your committee desire to recommend that efforts to ascertain the practicability of Federal legislation leading to the establishment of a central qualification which will place the profession in Canada upon an equal footing with that of Great Britain, and Dr. Roddick be authorized to take the necessary steps in said matter.

We further recommend that this Association shall appoint a committee who shall consider and recommend the details as to the number of examiners to be appointed—the method of conducting examinations, the fees to be charged and other necessary details to bring the aforesaid scheme into active operation, which details the officers of this Association shall with the foregoing send to each of the respective councils for approval.

The committee who had the matter under advisement were: Dr. MacNeil, (P.E.I.), Chairman; Drs. Marcil, Chas. Parke, Marsolais, Roddick, (Quebec); Muir, (Nova Scotia); Williams, Thorburn, Mullins, Henry Wright Wright, (Ontario).

Dr. Ahern moved that the following committee be named to continue the good work already begun:—Drs. MacNeill, P.E.I.; Muir, N.S.; Walker, N.B.; Marcil, Quebec; Bain, N.W.T.; McKechnie, B.C.; Williams, Ontario. This resolution also acknowledged the committee's services, and was unanimously adopted without discussion.

Dr. Graudin moved that type-written copies of the report be sent to the registrars of each Province to be laid before their colleges, and that answers thereto be requested in order to feel the sentiment of the country on the subject.

The papers read at this session included "Sero-Therapy," by Dr. Ed. Leberge, Montreal; Laryngeal Diphtheria, by Dr. Gaudier, Sherbrooke; A case of Strangulated Umbilical Hernia, Dr. Gibson, Belleville; Neurasthenia, Dr. Meyers, Toronto; Goitre, Dr. Dickson, Toronto; Infection and Sero-Therapy, Dr. A. DeMartigny, Montreal.

A letter of congratulation to the Association and its president was read by Dr. F. X. DeMartigny, of Montreal, on behalf of Dr. Guepin and Dr. Loze, of Paris, and Dr. Roddick moved that it be suitably acknowledged.

Dr. F. X. DeMartigny also read some communications from Paris on technical subjects.

The auditors, Drs. Dickson and Marois, then reported on the treasurer's books, showing that the balance from last year was \$132, while the receipts this year were \$156, making a total of \$288.52, of which a balance of \$62.40 still remains.

The thanks of the meeting were then unanimously tendered to Dr. Small, in recognition of the able manner in which he had, as treasurer, kept the books.

A vote of thanks was likewise passed to the doctors of Quebec, and especially the local committee, for the handsome manner in which they had received the Convention.

Another very strongly worded motion was also moved, seconded, and unanimously passed, expressing the physicians' high appreciation of their delightful trip to Grosse Isle, and their sense of its magnificent equipment. The mover, Dr. Meyers, of Toronto, dwelt upon the magnificent development made by the station during the last twenty-six years until now it is second to none, and embodied in his motion that the Government should retain Dr. Montizambert as the superintendent of quarantine. He said that almost all that had been done at Grosse Isle was due to Dr. Montizambert, and spoke briefly of his great scholarly attainments, and of the very high stand he took among medical scientists the world over. These remarks were applauded to the echo. Dr. Parke seconded the motion.

Dr. Dickson, of Toronto, moved that the thanks of the Association be tendered to the authorities of Laval University for their splendid building and room.

Dr. Small moved that a vote of thanks be passed to the transportation companies who had carried the members at reduced fare, but suggested that some more convenient means of getting reduction than the bothersome certificate system be sought for.

Dr. Mullen moved that Dr. Beausoleil vacate the chair and that Dr. Roddick act as chairman.

He then proceeded to move a vote of thanks to the highly esteemed President for his efforts on behalf of the Association, which he had so largely contributed towards the success of the meeting, one of the best the Association had ever held. He could well remember the first meeting of the Association, which he

attended, was held at Niagara Falls, and was under the presidency of a Quebec physician, the late Dr. Marsden. Since then he had had the pleasure of knowing many presidents of the Association, and it was with pleasure that he remarked how prominent the men all had been. Having commenced under a Quebec president, it was gratifying for him to now attend under a presiding officer taken from among his French-speaking brethren, one of the most delightful and most successful meetings that the Association had held since its foundation. The motion was warmly seconded by two or three gentlemen and was then put to the house by Dr. Roddick, who transferred the expression of the meeting's feeling to their object.

Dr. Beausoleil made a characteristically happy reply. After thanking the members for the honor they had done him, he addressed himself principally to his French-Canadian brethren, and showed them how foundationless was the assertion that the society was an English one. This idea he desired to correct was all wrong, for the society was essentially Canadian in fact as well as in name. French and English-speaking must unite together, not necessarily in language, but in the effort to promote the general good of the country. That the English-speaking members of the Association were willing to do their share and were eminently fair and just to their confreres was exemplified by the fact that in a committee of fifteen, on which there were two French-speaking members, one had been elected president. At the Kingston meeting every honor that could be asked for by the French-speaking members was accorded them, although they were practically alone, and though their countrymen were only one-fifth of the Dominion's population. Now, the French-Canadians must show by their efforts that they want to maintain Canada's reputation and to keep step with progress, and Quebec Province must realize that though she has long had a tendency to do so, she must not bashfully lag behind the rest of the Dominion, even though she may very exclusively desire to retain some of her legitimate characteristics. Finally, he asked all his French-speaking confreres to rally to Toronto next August, and strongly urged them to busy themselves in securing new members for the Association.

Dr. Dickson, of Pembroke, in a few very neat remarks, proposed a vote of thanks and the usual bonus to the secretary, whom he eulogized in the warmest terms for his assiduous and painstaking, though unassuming, efforts on behalf of the Association. In fact, he attributed much of its success directly to Dr. Starr. In these remarks he was seconded by Drs. Muir, Small, Roddick, Beausoleil, MacNeill and others.

Dr. Starr then read a number of communications, including an invitation to the C.M.A. to send a delegate next month to the annual meeting of the Electro-Therapeutic Association which assembles in Buffalo.

After the consideration of other routine matters three hearty cheers were called for and heartily given for Dr. Parkes, president of the local committee, who so admirably arranged everything for the Association and the gathering broke up to assemble next August in Toronto.

In the afternoon the members were entertained to a very pleasant drive to the Falls of Montmorency, by their confreres of Quebec.

THE MUSEUM.

Amongst the exhibitors of Surgical and Medical Appliances at this year's meeting were such firms as The Jeyes Sanitary Compounds Co., of London and Montreal, H. K. Wampole & Co., Leeming, Miles & Co., B. Lindman, and W. J. Chapman.

Jeyes Sanitary Compounds Co., under the efficient management of W. Braggs, had a most attractive exhibit of that firm's goods, including their refined medical liquor, surgical gauzes, toilet soaps, tooth and soap powder, besides their dog soap and veterinary ointment. Jeyes' Refined Medical Liquor is not only a standard article in the surgery and dispensary, but Jeyes' Fluid is a household requisite in the Old Country and Europe, where it has taken the leading place as a reliable and absolutely safe disinfectant and antiseptic. In fact, ever since Koch and Von Esmarch tested this preparation so fully in their laboratory at Berlin, and stated, as the result of their researches, that Jeyes' Fluid destroyed germs in ten minutes which withstood carbolic acid for four days, the profession has accepted it as the very best disinfectant. The company are now putting up a refined quality for surgical and medical purposes, and as this is not only purer, but also less alkaline, it is recommended for professional use. The disinfecting fluid is put up in bottles, and in drums and tins, for general sanitary work, and samples of the different packages were exhibited. The visitors were all greatly pleased with the surgical gauze, which is specially made of pure fabric, and carries a ten per cent. strength of the fluid. A special surgical soap, also of ten per cent. strength, in a handsome case, for the instrument bag, was also admired. Much interest was evinced in the toilet soaps and tooth and soap powder, in which the antiseptic is cunningly blended with perfumes. The Senalia Soap especially came in for praise, while the Tooth Soap Tablets were much admired. The Dog Soap and Veterinary Ointment attracted attention from the lovers of animals, and it appeared that some believers in Jeyes' goods, who had not met with the Dog Soap, were using the fluid in the washing water for their pets and had found it very satisfactory. It may be added that Jeyes' Company (London) are the inventors and sole manufacturers, not only of Jeyes' Fluid and its many preparations, but also of the cruder form, Creolin (registered), and other forms of the antiseptic.

H. K. Wampole & Co. were represented by their efficient and ever courteous Canadian manager, Mr. Frost. This gentleman drew the attention of the visiting physicians especially to Wampole's New Pulverous Pills, which they claim are more easily dissolved in the stomach's juices and more readily digested than any other pill made. Wampole makes up a full line of these pills, and we are glad to know they are rapidly getting a hold in Canada. Besides these goods, they showed a full line of their other excellent preparations, and it was but seldom that this exhibit was not surrounded by a large number of anxious enquirers.

Leeming, Miles & Co., of Montreal, exhibited a magnificent display of Seabury & Johnson's different goods, under the superintendence of Mr. Benedict, who treated all callers with the utmost courtesy. That the name of Seabury & Johnson stands for efficiency, reliability and absolute purity in the line of medicated plasters goes without saying. "S. & J." stamped on anything in that line is all that is required. We predict a steady increasing sale in Canada for those goods.

Mr. Bernard Lindman "tooted" as usual the good qualities of the Wilkinson Truss.

Mr. W. J. Chapman had a very fine exhibit of the latest articles in the surgical instrument line.

DR. A. MCPHEDRAN returned from England on the 22nd of August.

DR. GILBERT GORDON and his bride are at present in England, but will return in October

DRS. G. A. PETERS, A. Primrose, K. C. McIlwraith, and Mr. Irving Cameron are expected back from Edinburgh this month.

DR. A. R. GORDON has commenced to build on the corner of Bloor and Huron streets, and expects to occupy his new domicile about February.

WE extend our sympathy to Dr. E. J. Barrick, on the sudden death of his daughter, Mrs. Giles, last month. Mrs. Giles was a general favorite, and we know that her father has the sympathy of the entire profession.

DR. ALEXANDER PATTULLO died at his residence, 262 Collège street, shortly before noon on the 10th ult., after suffering for many months from malignant disease of the liver. Deceased was a well-known practitioner in this city. He came here thirteen years ago from Brampton, where for a number of years he had practiced. Dr. Pattullo was born in the township of Caledon sixty-eight years ago, and after attending school at Brampton, took a course at Varsity, and afterwards graduated from Trinity Medical College. Deceased leaves a widow and two children. He was a cousin of Mr. Andrew Pattullo, M.P.P. The funeral took place on the 12th and was largely attended by city practitioners.

The Canadian Journal of Medicine and Surgery

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Oral Surgery—E. H. ADAMS, M.D., D.D.S., Toronto.

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Laryngology and Rhinology—J. D. THORBURN, M.D., Toronto, Laryngologist and Rhinologist, Toronto General Hospital.

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Advertisements, to insure insertion in the issue of any month, should be sent not later than the fifteenth of the preceding month.

VOL. IV.

TORONTO, SEPTEMBER, 1898.

NO. 3.

Editorials.

CHOLERA INFANTUM AND SUMMER DIARRHŒA.

EXPERIENCE obtained in Michigan by Dr. Baker, Secretary of the State Board of Health, shows that cholera infantum and diarrhœa prevail in the months, which follow the hottest months in the year. In the report on vital statistics in Michigan for 1894, the greatest number of deaths from cholera infantum were reported for that year in September, and the greatest number of deaths from diarrhœa in August and September. By far the greater proportion of these deaths occur from causes associated directly and indirectly with the hot weather. It may, therefore, be true that a diseased condition

of the intestines is produced in some children by causes operating during the hot weather of July and August, and that, unless the child dies from a violent attack, it may linger and die later on in September.

Stawel points out that in Melbourne, as in many American cities, diarrhœa becomes epidemic, only when the mean temperature has reached an elevation of 60° F., and no other atmospheric condition can be shown to exert any appreciable influence upon the disease.

Universal experience shows, that infants suckled at the breast do not die in hot weather in the same proportion as bottle-fed infants. It is reasonable to suppose, therefore, that hot weather diarrhœa is largely due to changes in the cow's milk fed to infants. Now, what are these changes, and what relation do they bear to the hot weather ?

Dr. Klein, in his Harlen lectures delivered in the summer of 1897, at King's College, London, stated that the bacillus coli communis is frequently present in milk. He says that it is ubiquitous in towns and populous districts, being present in earth, air and water, in food and drink, and even in saliva and sweat. But it is not found on mountains and moors, and so far from its ubiquity elsewhere negating the theory of its origin (intestine of man or beast), it simply means, that the air and water are nowhere absolutely free from some slight taint. It is the chief cause of the souring and curdling of milk, which, though sterile so long as it is in the udder, becomes inoculated in the act of milking ; while milk being the richest of culture media, that sold in the shops teems with bacilli by myriads in the cubic centimetre. If milk passing from the udder of the cow becomes inoculated with bacillus coli through aerial contamination, it would seem unnecessary to mention grosser forms of infection. The soiled hands of a milker or the udder of a cow stained with fœces would, however, be more likely to communicate this bacillus than the air of the dairy. When several infants occupy the same room, the air of that room would probably be saturated with bacillus coli, and this may account for the rather large prevalence of cholera infantum and diarrhœa in overcrowded nurseries. Baginski finds three forms of bacteria in the summer diarrhœa of infants : bacteria coli, bacteria lactis, and a proteus variety. These bacteria are common residents of the alimentary canal ; but, under the influence of a high temperature and possibly other agencies yet unknown, they acquire virulent power. The products of these bacteria, ammoniacal in their nature, cause in-

flammatory disturbances, which in time bring about degeneration of the mucous membrane of the intestinal wall, and allow the germs to enter the blood and lymphatics and through these the viscera. Klein's views are easily reconcilable with these. The bacteria coli in the intestine, their normal habitat, are inoffensive; but, lodged in milk at a temperature above 60° F., they produce putrefactive or fermentative changes in the milk and acquire a virulent power. Should this milk be used for the nourishment of an infant, it is capable of producing inflammatory and degenerative changes in the alimentary canal of the recipient.

Hence it should be useful to class cases of summer diarrhoea of infants under the heading of "milk infection," in order to emphasize the etiology of the disease. In Stawel's opinion ileo-colitis is a more correct name for the pathological condition, usually found, than gastro-enteritis. Naturally enough, therefore, irrigation of the large intestine has been found satisfactory; the irrigating fluid usually employed being a weak solution of borax. The vomiting associated with the disease is best treated by thorough lavage. For the condition known as "spurious hydrocephalus" free alcoholic stimulation must be employed. Further, a regimen of boiled water, cooled to a suitable temperature, should be given, to the exclusion of all food, every hour or half hour for eight, twelve or twenty-four hours. This dilutes the irritating secretions, dislodges the debris of decomposing alimentary matter, and eliminates the poison from the system.

J. J. C.

THE PLEBISCITE.

DURING the current month a vote on the now famous plebiscite will be taken throughout Canada. That the result will be looked forward to by all classes with extreme interest is quite certain, and for obvious reasons. The Canadian Premier has already stated in Parliament that, should a large majority pronounce in favor of abolishing the manufacture and sale of intoxicants in Canada, it will be incumbent on his Government to introduce legislation to secure prohibition. If, on the contrary, the majority of votes cast should be in favor of not interfering with the liquor business, no legislation will be introduced. It would be impossible, of course, to predict the action of the Government if a narrow majority should be recorded on one or the other side of the plebiscite, but probably no change would be made in the existing laws. Physicians, like

other citizens, will form, according to their own leanings, opinions for or against prohibition. We do not propose to show the commercial, manufacturing and revenue-producing advantages of the liquor traffic, as now carried on in Canada, or to describe the injury to different trades, the loss of value in plant, the growth of smuggling and illicit distilling, if this traffic is prohibited. Neither, on the other hand, shall we paint pathological pictures of injuries to the health of those who drink, "not wisely, but too well," the debased condition of the drunkard's family, the moral wreck in which alcohol entombs all that is best and brightest in man, for physicians, more than any class, know the dire effects of the excessive use of alcohol on the human organism. There is, however, one feature of the question which interests physicians in their professional relations. There is nothing to say against abstinence from alcohol. Many physicians order it but rarely, and then only for a specified time. On the other hand, there need be no objection to people using alcohol, provided they have sufficient good sense to know when to stop. Assuming, however, that an inebriate has been won from his bad habits and has renounced alcohol in every form, he certainly has a right to get pure water. We think that a great deal of the fervid energy, displayed by the teetotallers in decrying the evils of alcohol, should be converted into a force, working for the purification of our domestic water supplies. Personally, we know of an instance in the family of a physician, living in a town in Ontario, in which ale was taken at meals, owing to the impurity of the town water supply. Ale, being made from a boiled water, has certainly a hygienic advantage over an impure or suspected water, when the probability of taking typhoid fever from the latter is considered.

It would, certainly, be of great service to the cause of sanitation and general good health, if the water supplies of Ontario were in every instance perfectly pure. Cold tea may be safe, but it is responsible for a good deal of dyspepsia, and most housewives will acknowledge, that a grumbling dyspeptic is almost as great a curse in a household as the chronic drunkard, for the latter is, at all events, speechless occasionally.

In the Ontario Health Act, chapter 248, section 30, it is stated, that wherever the establishment of a public water supply is contemplated by the Council of any city, town or village, approval of the plans, source of supply, etc., must be obtained from the Provincial Board of Health. Now, in a large proportion of the

745 municipalities of Ontario the domestic water supplies are rendered impure by preventable sources of contamination. Teetotallers, many of whom are in public life, are largely represented in the municipal councils. Let them agitate for pure water. The doing away with surface wells and the securing of an improved water supply for a municipality will cost a little money; but, if teetotallers take an active part in bringing such a work to completion, they will convince physicians and sanitarians that their crusade against alcohol is sincere, and that they really mean to popularize water instead of beer.

J. J. C.

NERVY, TO SAY THE LEAST OF IT.

It has always been understood that members of the medical profession, in making original research in any branch of medicine, gave the results of such work to the world for the sake of suffering humanity. It has, however, recently come to light that one man, for the sake of filthy lucre, has proven an exception to the rule. We refer to Emil Behring, of the Faderland. For some years he has been attempting to secure from the United States Government a patent covering the manufacture of diphtheria antitoxin, claiming to be the original discoverer of this form of treatment. On every application he has been promptly refused, and justly so; but for some unaccountable reason, in June of this year he was granted the privilege asked for, and has now served the manufacturers of diphtheria antitoxin all over the United States with notice to stop the manufacture of this article, and, in fact, to at once shut the doors of their laboratories and allow to go to loss the hundreds of thousands of dollars already expended by them in this direction. In doing so we suppose that he thinks he is acting within his rights; but how it comes that the Government at Washington could possibly give to one man or firm such an unjust exclusive monopoly is beyond our comprehension, especially so when it has been long ere this proven that if any one man could claim to be the original discoverer of immunizing against disease such belongs to Pasteur. What Behring claims as his invention is:

"1. A process of producing diphtheria antitoxin, which consists in inoculating horses or other animals capable of being infected with diphtheria with repeated doses of diphtheria poison or living diphtheria bacilli of gradually increasing quantity and strength so

as to immunize them and form in the blood a counter-poison for destroying the poison secreted by said bacilli, drawing off the blood from said animals, separating the serum from the blood corpuscles, and concentrating the former for use substantially as set forth.

"2. As a new substance, diphtheria antitoxin, consisting of the concentrated serum of the blood of animals treated with diphtheria poison and having the characteristic of immunizing test animals against infection with diphtheria, and curing them when artificially infected with diphtheria, said serum containing a counter-poison having the property of destroying the poison secreted by the diphtheria bacilli substantially as set forth."

That Behring's claim to such is humbug is perfectly plain, as the principles of immunization to diphtheria were laid down by many long before his name came to the front, the basis of this work being undoubtedly laid, as we have already said, by the immortal Pasteur, when he first gave to the profession his method of immunizing against Anthrax, as Dr. F. W. Mann points out in his editorial appearing in the *Medical Age*:

"So long ago as 1887 Sewall immunized pigeons against the poison of rattlesnakes. He says, with genuine modesty, his work was undertaken with the hope that it might form a worthy contribution to the theory of prophylaxis, and it was a most worthy contribution. In 1887 Roux and Chamberland immunized animals against malignant cedema with sterilized anthrax cultures. In 1890, the same year in which Behring and Kitasato published their results in immunizing animals against diphtheria and tetanus, Fraenkel published his results in diphtheria after treating animals by weakened germs and filtered cultures. In the clinical uses of the serum Aronson's name must not be forgotten. His serum was first used in the Children's Hospital at Berlin in 1894. The serum of Roux had been used in one of the hospitals of Paris a month earlier than Aronson's in Germany. Emerich and Aronson both dispute the priority of Behring, and the French Academy of Sciences awarded their prize for antitoxin jointly to Behring and Roux, a fact which very clearly denotes the difficulty of estimating priority of merit in a scientific struggle in which the numerous competitors were so equally distinguished."

To think that one firm would have the temerity to attempt to shut the laboratory doors of those firms in the United States who have for years been turning out such excellent antitoxin savors too strongly of injustice. We are glad to know that the manufacturers have entered vigorous protest in this matter and will fight the case to the highest courts. We are informed that medical men need not have the slightest fear about the use

of serums made in the United States, as the manufacturers will protect the profession at their own expense to the very last.

We cannot forbear quoting the apt and eloquent words in which Dr. Warren sums up this whole matter:

"If Professor Behring admits any merit in the work of his predecessors and contemporaries, his claim to be the exclusive inventor of diphtheria antitoxin is in contravention of all the ethics of a scientist's career. His claim is an offence against common morality. Had Simpson patented chloroform anæsthesia, or had Lister patented antiseptic surgery, the world would have had two selfish empirics, and lost two medical heroes. If Behring, by the righteous judgment of mankind, can be adjudged sole and undisputed inventor of antitoxin, he has a place in the Temple of Fame for achieving the most beneficent discovery of modern times. It remains to be seen whether the temptation to be rich will overcome the ambition to be great, and whether for a tinsel crown he will barter a diadem of everlasting renown."

W. A. Y.

CANADIAN MEDICAL ASSOCIATION AT QUEBEC.

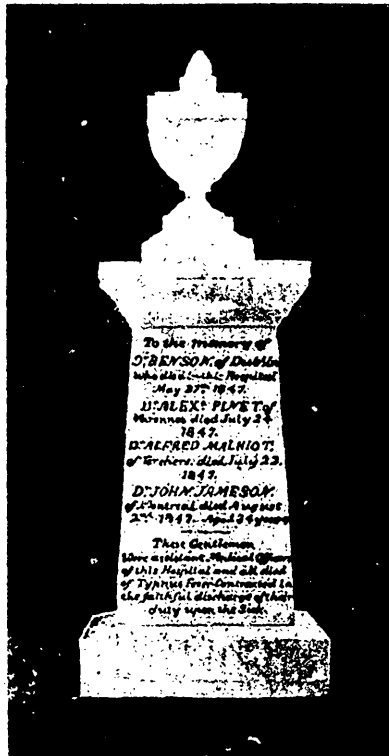
Ah, mighty splendor unsurpassed—
 Yet sight of land is sweet at last,
 And sweet at early morn
 To wake, and from the crowded deck
 Behold the proud walls of Quebec
 And land where I was born.

EZRA H. STAFFORD.

A jaunt to French Canada is always a delight to "upper" Canadians. The sail to Montreal, our courteous reception, and the luncheon tendered by the staff of the General Hospital there were unalloyed pleasures. Then, on by boat again at night, to open our sleepy eyes next morning to find Point Levis on the one side and the grim old Citadel on the other, alike claiming our admiration as the early sunshine touched and tinted their sombre greyness. Quebec is beautiful in its quaintness, historic and interesting, a wondrous place for the artist and his humbler friend the camera fiend, and many of our delegates found stray hours between the sessions to indulge in snap shots and enjoy some funny *contretemps* which, when afterwards related, made even the tapestried walls of Chateau Frontenac resound with laughter.

We all visited Montmorency Falls. We enjoyed a garden party kindly given in our honor at Parent Park, *after* we got there, but owing to the darkness of the night and the state of repair of a portion of the road, it proved (as the darkeys used to sing) "a hard

road to travel." One of the party, a Toronto physician, for whose brightness we thanked the fates (as we came to a halt before the junction of car tracks, earth, rock and general debris), called out to a *habitant* who was passing: "*Garçon, pensez vous que nous sommes — acrobats?*" The doctor *said* what we *thought*. The trip to Grosse Isle, the quarantine station, was as interesting as unusual. Dr. Montizambert, of Toronto, the quarantine officer (who resides on the Isle all summer) was courtesy personified, and placed himself at



The Monument erected on Grosse Isle, St. Lawrence River, to the memory of the Physicians who died in the discharge of their duty in the Plague of 1847.

our entire service. The arrangements for the landing of infected passengers from the steamers, and the provision made for the comfort of "suspects," seem about perfect. The way the clothing is disinfected by superheated steam, the bichloride spraying of the persons of the passengers, the disinfection by formaldehyde of such articles of apparel as would be injured by being exposed to so high a temperature as that necessitated by the steam process, also numerous minor precautions resorted to, were indeed well worth seeing.

Perhaps the only moment of sadness experienced by any of our jolly party was when we visited the graveyard (on Grosse Isle) with its monument to the 5,424 emigrants, victims of the typhus fever and cholera plague in the awful summer of '47. Well might we stand uncovered also beside the last resting place of the physicians whose simple epitaph is, "Died, in the discharge of their duty—of typhus fever." All honor to those who have perished, standing sentinel between our great floating cities and our busy centres of teeming life, to protect and guard from the spreading of the dread plague.

With the closing of the meeting of the Canadian Medical Association (the success of which was largely due to the executive ability and untiring efforts of the General Secretary, Dr. F. N. G. Starr) we say adieu to medical conventions for this season. We have met and profited by what we have learned, and also have enjoyed much meeting once again our confreres and the friends of student days from near and far. Now to work again, conscious that "to-morrow will bring another day."

W. A. Y.

DIAGNOSIS SHOULD PRECEDE TREATMENT IN SORE THROAT.

SUCCESSFUL treatment requires careful diagnosis, and this rule applies with great force in the varied forms of sore throat. To treat a sore throat intelligently, the invading germ, if there be one, should be recognized, and the therapeutic agents adjusted accordingly. If, for instance, the organisms present are staphylococci, which cause fever, the indications are a mixture containing tr. aconiti and sulphate of magnesia; if streptococci, which cause pain, the principal indications are soothing applications to relieve the pain and destroy the germs, such as gargles containing Labarraque's solution of the strength of 50 parts to 1000 of water, or a one per cent. solution of chloral. If the Klebs-Lœfler bacillus is the invading germ, antitoxin diphtheriæ should be injected immediately, and this will often bring on the crisis of the disease in twenty-four hours. If the Klebs-Lœfler bacillus is associated with the streptococcus in its invasion there will be a long, hard fight. Antitoxin diphtheriæ should then be used before ptomaine poisoning, which arises from the Klebs-Lœfler bacillus, has appeared. The early discovery of the Klebs-Lœfler bacillus is of the greatest importance. When dis-

covered, whether alone or in association with other organisms, antitoxin diphtheriæ is the proper remedy, and should be used immediately. While it is true that antitoxin diphtheriæ can be used with confidence to neutralize the virus of the Klebs-Lœfler bacillus, it can do no good in most, and is positively harmful in some cases of streptococcus angina. The toxin developed by the streptococcus is usually of small importance, and, as already stated, the indications called for are soothing applications to the seat of the disease, which relieve the pain and destroy the germs. It thus appears that, in the treatment of the various forms of infectious sore throat, the scientific examination of throat membrane or secretion by the bacteriologist is of the first importance, and should be made as soon as possible, if successful results are to be obtained.

J. J. C.

THE ONTARIO MEDICAL LIBRARY ASSOCIATION.

IN our last issue we called the attention of the reading portion of the profession to this library which has now been in existence for the last ten or eleven years. Though first contemplated by a few of our prominent Toronto confreres, it has been a Provincial library from the beginning. The Ontario Medical Association, in recognition of its advantage to the profession throughout the Province, has shown its fraternal interest by voting a substantial bonus each year. Long may it continue to do so; and be an annual reminder to every one of us that we too may do something to encourage an institution whose only aim is the advancement, not only of the actual members of the Association, but also of the individual members of the profession throughout the Province. In fact, our provincial brethren are treated in a more liberal manner than are the city members of the Association; while the latter are compelled to subscribe for stock in the Association and pay an annual fee, the former have only to write to the librarian and ask for any book or books on the shelves, all the cost entailed being the boxing and express. In this way any physician in good standing may consult the authorities on any subject at the cost of a trifle. Who among us would not give considerable to have at our service the latest literature upon puzzling cases which turn up every few months. The library with its four or five thousand complete volumes, and its list of monthly and weekly journals, offers the opportunity which we trust our rural and urban readers will promptly and persistently take advantage of.

A CORRECTION.

In the "Correspondence" column, page 115, of the August issue of the Journal appeared a letter, signed "Practitioner," in which reference was made to the name of Dr. J. E. Elliott, of this city, appearing upon a card alongside of a telephone in one of Toronto's business houses. We are now informed that the card in question was printed at the instance of an Accident Insurance Company, of which Dr. Elliott is a salaried official. In that capacity it is his duty to investigate promptly all cases of accident in which the Company is interested. Dr. Elliott states that the card was printed by the Company and handed to the employers of labor, who are insured with it, without his knowledge and that it was in no sense an "advertisement." It was simply for the private use and convenience of the Company and its policy-holders. We are pleased to make the correction so as to remove any misapprehension in the matter.

The Physician's Library.

BOOK REVIEWS.

Diseases of Women. A Text-book for Students and Practitioners. By J. C. WEBSTER, B.A., M.D.Ed., F.R.C.P.Ed., F.R.S.Ed.; Demonstrator of Gynecology, McGill University; Assistant Gynecologist, Royal Victoria Hospital, etc., etc.

After a study of Howard Kelly's masterful work on "Operative Gynecology," one looks somewhat askance at any other contemporary work on "diseases of women," but being attracted to the above volume on account of its Canadian authorship—the writer being a teacher in a Canadian University—one is most agreeably and pleasantly surprised after a careful perusal of its interesting and practical pages. The author has certainly proved himself both an original investigator and a skilful compiler in one of the most important branches of our profession. It is really an admirable book, and we predict for it a great and deserved popularity. The work is written in clear and concise English, the arrangement of the various subjects is excellent, it is practical in its details as regards treatment, and it will be of material advantage to the general practitioner as well as a useful text-book for students. At the same time it is thoroughly scientific and up to date, and will be read with interest and advantage by the specialist.

The book is thoughtfully and appropriately dedicated to Dr. William Gardener, the accomplished gynecologist and distinguished professor of McGill College. The objects of the book are set forth in the preface and are fully carried out in the text. Careful and special attention has been given to anatomy, physiology, embryology, pathology and bacteriology, in so far as these bear on diseases of woman; and many of the facts related are the result of original investigations by the author. This, however, would be expected from one who has been awarded the "First Research" prize of the Royal College of Physicians, Edinburgh.

The chapter on "Puberty, the Climacteric and the Disturbances of Menstruation," is worthy of careful study and reflection. Several pages have been devoted to "case-taking," and should be mastered by every student and practitioner. The description of minor surgical measures and instruments is excellent. We observe, however, in referring to the use of the curette, that no caution is given as to the danger of perforating the uterus, an accident we have known to happen in the hands of skilful gynecologists. Preference is also given to Roux's curette. We cannot but think, however, that the perforated instrument which allows irrigation of the uterine cavity during the curetting, washing away the debris at the same time, and doing away with the subsequent use of the double catheter as recommended, is preferable. The aseptic technique, so necessary to successful gynecological work, has been given all the importance and attention absolutely required in a modern scientific work, and the chapter on operative measures is one of the best in the book.

The chapters on "Peritonitis," "Pelvic Cellulitis," "Pelvic Hæmatocele" and "Hæmatoma," are concise, reliable and practical, as is also that portion of the work devoted to the study of affections of the tubes and ovaries. In affections of the uterus, especially in reference to lacerations and injuries of the cervix, in order to avoid "the mistakes of the school whose motto is Michélet's dogma, *Le bassin c'est la femme*," the author reaches the other extreme, when he states that repair of cervical lacerations are rarely needed. This statement will possibly account for the poor and meagre description of the operation necessary for the repair of this lesion. An inexperienced operator would have great difficulty in understanding the necessary procedure from the description given, whilst the diagram would only add to the perplexity. In the treatment of stenosis of the cervical canal, no mention is made of any of the intra-uterine drainage tubes, which are of so much value in preventing contraction and avoiding the after use of Heguis or other dilators. In repairs of the perineum no reference is made either to Tait's or Emmet's special operations, and the operation described is not obviously intelligible, but the chapters on "Uterine Fibroids" and "Carcinoma" are very complete, the operative details being minute and clear.

Kelly's special work in vesical and ureteral affections is given due consideration, and his methods of examination are intelligently described, but no mention is made of the proctoscope or sigmoidoscope—valuable instruments in the study of rectal affections.

We congratulate the profession of Canada upon the acquisition of such a scientific, practical and up-to-date work—a work which maintains a high standard throughout. We believe the book is destined to go through many editions, and should be in the hands of every progressive Canadian student and practitioner.

G. T. McK.

Masters of Medicine—Sir Benjamin Collins Brodie. By TIMOTHY HOLMES, M.A., F.R.C.S. New York: Longmans, Green & Co., 91-93 Fifth Ave.

One of the noticeable features of this century has been the desire of the reading public for biographical sketches of celebrated men. To physicians it is a privilege as well as a pleasure to have in this series, "Masters of Medicine," an opportunity to study the lives of those who occupied the places of honor in their chosen profession. After the author of this sketch has safely perched Benjamin Brodie in his place on the "family tree," and surrounded him with innumerable "cousins and aunts" in true Scotch style—for has not Sir Walter Scott said, "Every Scottish man has a pedigree. It is a national prerogative, as unalienable as his pride and his poverty"—the perusal of the book becomes interesting. The parental sternness and insistence of attention to study, and the choice of his profession for him by the same stern parent, makes "Benjamin Brodie" quaint reading for the youthful student of to-day whose most remote idea is to even consult "the pater" as to his destiny, let alone deviate from the dictates of his own sweet will. At the beginning of his study of medicine, Benjamin Brodie evinced for it a positive aversion, and one wonders

greatly at his dogged perseverance in a study so obnoxious to his tastes. But diligence brought its own reward, and his former aversion turned to enthusiasm as success after success crowned his efforts, bringing him into great prominence in the Royal Society, as a lecturer, writer, and later as physician to the king. In entertaining detail his friends (many titled and prominent persons) and conferees in medicine are introduced to the reader, and frequent references made to his writings. Financially also he was very successful. When only thirty-nine years of age his income had risen to £6,500, and for many years went on steadily increasing. The closing years of his life were full of sadness. His wife died after forty-five years of happy comradeship. While still active in brain and body his life ended in loneliness and blindness, in 1862. W. A. Y.

A System of Medicine by Many Writers. Edited by THOMAS CLIFFORD ALLBUTT, M.A., M.D., LL.D., F.R.C.P., F.R.S., F.L.S., F.S.A., Regius Professor of Physic in the University of Cambridge; Fellow of Gonville and Caius College. Vol. III. London: Macmillan Co., Limited. New York: The Macmillan & Co., 1897. Toronto: A. P. Watts & Co., College Street.

Volume III of Allbutt is more than ordinarily interesting, consisting as it does of "Diseases of the Stomach and Bowels." The book is divided into 1st, General Diseases of Obscure Causation. Under that heading the article on Acute Rheumatism is written by Drs. Church and Cheadle; Chronic, Muscular and Gonorrhoeal Rheumatism is written by Dr. Archibald Garrod; Rheumatoid Arthritis, by Drs. Kent Spender and A. Garrod, and that same disease in children by Dr. Still; Dr. Cheadle contributes a chapter on Rickets, and W. Bowlby articles on Osteomalacia, Osteitis Deformans, Acromegaly and Osteo Arthropathy. Gout is dealt with by Sir William Roberts; Diabetes Mellitus, by Dr. Saundby; Diabetes Insipidus, by the late Dr. Ralfe; and Hardaceous Disease by Dr. Howship Dickinson. Under the heading of (2) "Diseases of Alimentation and Excretion," Drs. Ralfe and Fenwick have an article on the General Pathology of Digestion, while Dr. R. Bradford deals with the General Pathology of Secretion. Dr. Dobbett has written a most lucid chapter on Shock and Collapse; Diseases of the Mouth and Œsophagus have been written by Dr. W. A. Wills and Dr. Fenwick. Under the heading of "Diseases of the Stomach," the principal contributors are Drs. Lauder Brunton, Fenwick, Stocker, and the author himself. Dr. Playfair has written a most instructive chapter entitled Abdominal Diagnosis, from a gynecological standpoint. This chapter in itself is well worth the price of the volume. Dr. Treves contributes an article on Enteroptosis, as also one on Acute Peritonitis under the heading of Diseases of the Peritoneum. "Diseases of the Bowels" include such writers as Lauder Brunton, H. D. Rolleston, Hale White, Eustace Smith, Patrick Manson, and Dr. Allingham. Volume III is fully up to, and, in some respects, ahead of the first and second.

Lectures on Mental Diseases. By HENRY PUTNAM STEARNS, A.M., M.D. Philadelphia: Blakiston & Co. 1898.

In this admirable work the author has very succinctly covered the whole field of nervous disease as generally so accepted; and by omitting a few of the more doubtful forms of derangement, or those whose actual place is not established, has saved the inexperienced reader from the inevitable confusion into which a perusal of some works upon the subject immediately plunges the uninspired. Paranoia, the perversions and syphilitic insanity are not mentioned, and neither is phthisical insanity; but there are several chapters upon paralytic dementia and epilepsy, and all the forms of insanity usually met with in hospitals for insane receive full and careful treatment. It would be hard, for example, to imagine any one reading the masterly description of paresis in this book without forming once and for all a clear clinical picture of that little understood disease. The author does not give way to the anecdotal impulse which carries so many similar authors so far a-sea from their subject and fills such a multitude of pages. An undigested, uncrystallized quagmire of little

stories and puerile recollections may be very interesting to the writer of such gossip, but it is not necessarily of profound scientific value. There are a number of cases described in the present volume—cases graphically and minutely set down—but no little stories. As good and as satisfactory a book upon the subject one seldom comes across—a better one would have to be very good, indeed.

E. H. S.

Atlas and Epitome of Operative Surgery. By DR. OTTO ZUCKERKANDL, Privat docent in the University of Vienna; authorized translation from the German. Edited by J. Chalmers DaCosta, M.D., Clinical Professor of Surgery in Jefferson Medical College, Philadelphia; Surgeon to the Philadelphia Hospital, etc. With 24 colored plates and 217 illustrations in the text. Philadelphia: W. B. Saunders, 925 Walnut Street, 1898. Toronto: J. A. Carveth & Co.

Our readers already are aware as to what opinion we hold regarding the previous numbers of this series of atlases. That each one of them has been almost superior to the last is a fact, and that Dr. Zuckerkandl has in this epitome of operative surgery excelled himself cannot be gainsaid. To a surgeon, a work of this kind with its plates, will be of marvellous assistance in freshening his memory just before going to the operating room, helping him to carry a mind picture as to the various styles of the work before him.

Lectures on Tumors. By JOHN B. HAMILTON, M.D., LL.D., Professor of Surgery, Rush Medical College and Chicago Polyclinic; Surgeon to the Presbyterian Hospital; Consulting Surgeon to St. Joseph's Hospital, etc., etc. Third edition, 21 illustrations. Philadelphia: P. Blakiston's Son & Co., 1012 Walnut Street, 1898.

Dr. Hamilton very wisely decided to publish this, a third, edition to his manual, owing to the rearrangement of tumors as made not long ago by the Royal College of Physicians and since adopted by the American Medical Association. His work does not pretend to be a work going into operative surgery in any way, but, on the other hand, one dealing solely with tumors and their pathology. It really consists of a series of lectures delivered before Georgetown University and afterwards Rush Medical College.

MAGAZINES RECEIVED.

Scribner's Magazine for September contains the following articles: "The Rough-Riders' Fight at Guasimas." Illustrations from photographs taken for *Scribner's Magazine*, and drawings by H. C. Christy. "The Santiago Campaign:" Some Episodes. Illustrations from drawings and photographs by H. C. Christy. A Wounded Correspondent's Recollections of Guasimas—How the Spaniards Fought at Caney—An Artist at El Poso. "A War-ship Community." Illustrations from photographs taken on the San Francisco, Indiana, Brooklyn, New York and Massachusetts. "Mutiny on the Flagship," a naval story. "A New York Day—Noon." Drawings by C. D. Gibson. Luncheon—The May Queen. "On the Sidewalks of New York:" Upper Broadway at Noon. "The Conscience of a Business Man;" illustrations by A. B. Frost. "The Workers—The West;" VI: A Road Builder on the World's Fair Grounds; illustrations by W. R. Leigh. "Dizaine." "The Story of the Revolution:" Greene's Campaign in the South. (To continue through the year.) Illustrated with drawings by Howard Pyle, E. C. Peixotto, F. C. Yohn, and with portraits. Decorations by the author. "Red Rock:" A Chronicle of Reconstruction. Chapters XXXII.—XXXVI. With illustrations by B. West Clineinst. "The Jungfrau Railway;" with illustrations. "The Point of View:" The Future of Scenery—The Question of "Living Longer"—Enter, the Mothers. "The Field of Art:" Newly Discovered Refinements in Architecture. (W. H. Goodyear).

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OF
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NEURASTHENIA AND HOW IT WAS CURED.

BY J. S. KENNDY, M.D., CHAMBERSBURGH, PA.

THERE has been so much printed lately concerning the cause, pathogeny, and the ultimate results of neurasthenia, that it must be something of unusual value to detain the attention of the busy practitioner. The history of several cases which have come under my care the last two years, may be of some value to others laboring under the dread disease, and to the physicians having them under treatment.

Neurasthenia, as we all so well know, takes on divers and multitudinous aspects, and it may take months of careful study to diagnose it correctly—even specialists have been known to make mistakes, and how much more are we who practice in the inland towns, away from hospital facilities, liable to false diagnosis. The name neurasthenia was originally given this disease by Bouchut*, and as we now understand it, it applies to an exhaustion of the nervous system occurring in persons of a peculiar temperament—the neurotic constitution. The most important factor in this peculiar affection is, as is now generally admitted to be—hereditation—from this type we have children who are unusually precocious—very susceptible to moral and intellectual training, by feeble digestion, imperfect secondary assimilation, and a general failing of the excretory organs. They need but little encouragement to expand into a selfish hypochondriac—they are eternally interrogating these organs, imagining this, that, and the other thing, until they have a well developed case of neurasthenia on their hands, aggravated and assisted to a full development by the mistaken kindness of friends and family. The subjects revel in the consciousness of possessing certain incurable diseases, they never (?) sleep, and they are continually—day and night, dwelling in an atmosphere of nervous tension. They are beset by fears that some of the numerous affections may suddenly break out in some unknowable form—all this is increased by petting, and by foolish parents or some bosom friend—approving and magnifying these symptoms. It is not confined to children or young people—all ages are represented. One of the cases is that of a medical officer in the United States Army. This gentleman was a fellow-comrade of mine in the service, and we both spent years in Arizona and New Mexico, both seeing severe Indian scouting, privation and hardships, in winter's cold and summer's heat, under that one great Indian hunter, General George Crook.

Among the causes, above all in my opinion, are self-abuse, sexual excesses after marriage, dyspepsia, excessive study or attention to business, and the alcoholic habit. The spinal pain and tenderness are not present in all cases, consequently there can be no congestion, and in fact there is no change in the nerve centres, and as this disease has shown no tendency to shorten life, we are forced to come to the conclusion that it is functional in character.

Whether this be true or not, I think the experiences of all physicians who have been called to treat this special neurosis, tend towards it being functional, because the manifold disturbances are intimately associated with a peculiar mental state, and one chiefly—if not wholly—of the psychic sphere.

The physician above mentioned, after years of alleged suffering, and two years of "sick leave," was compelled to resign and go on the retired list. He

*Afenfeld "Des Neuroses," p 478.

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complained of capricious appetite, pain in the left side near the apex of the heart, torpor of the bowels, pale, anæmic skin, muscles flabby, pulse quick, heart irritable, and subject to attacks of prostration with semi-unconsciousness, the vaso-motor system in a highly mobile state, with chilliness, cold hands and feet. He also experienced great difficulty in reading, with frontal headache, and a peculiar nervous explosion felt in the brain, just at the time of passing from wakefulness into sleep—something not noticed in any of the authorities on neurasthenia. Here symptoms went on from bad to worse, until my friend was a confirmed neurasthenic. In the treatment I first of all tried moral management and hygienic influences. So long as the patient is kept at home, the object of solicitous attentions of some slave of a mother, wife or husband, little or nothing can be accomplished. Removal from friends, and subjected to an entirely new set of impressions, is the first and paramount object. Systemic feeding and exercise come next. Electricity comes with favorable notice from some—it failed in mine—as did all other remedies, such as cod liver oil, iron strychnia and pirotaxine, arsenic, nuxvom., phosphites, etc.

I had been reading lately of the discovery of Dr. Barclay, of Pittsburg, in the combination of *liq. auri et arsenii bromidi*—commonly called *arsenauro*, (Charles Roome Parmele Co., New York). As the last resort I commenced giving it to my friend, being almost as discouraged at the action of drugs as he was. I ordered five drops three times a day, after meals, but finding this in his case seemed to create some distress which he attributed to it, but I think was due to too much "fried oysters," I gave it a half hour before meals and at bed time. The effect was rapid and remarkable, the irritability of temper and restlessness was appeased, the action of the heart was lowered in beats and lessened in intensity, and the increased excitability of the nervous system very much calmed, the eyes brightened, the frontal headache ceased, the digestive organs resumed their almost forgotten functions, the skin lost its pallor, and the blood coursed through the arteries with increased vigor. It was but a short time until the neurasthenic was compelled to confess that he not only slept some, but that life seemed brighter with future prospects—the often distressing cerebral symptoms became better, and these improvements continued until now he has quite regained his pristine vigor. This case had been treated by nervous celebrities of national fame with negative results, and I make no claim for a more acute diagnosis than others, but only for the merits of *arsenauro*, which alone and unaided by other stimuli, caused the cure of this case, which had continued for fourteen years.

The astonishing results of its action in above quoted case caused me to try its running mate, *mercauro*, in a female patient who had travelled the road of all other neurotic cases, going from one physician to the other, and finally in the course of natural events, came to me. Hers was a case of extreme susceptibility to nervous influences—fright, joy, mental emotions of any character caused her to fall into a cataleptic condition and remain so for hours at a time. Knowing the antecedents of this case, and that the father was a gay young lark, browsing in pastures he had no business to be in, I came to the conclusion that this person was a victim of the "sins of the fathers shall be visited upon the children of the third and fourth generation," and suspecting syphilitic contamination, I gave her *mercauro*. It seemed, as she said, to "take hold at once." She regained her usual spirits, the attacks stopped with but one exception, and that was when her husband was inaugurated as a "Menonite preacher." At the installation services she was seized with one. She was afflicted for seven years, the attacks coming on every week or so but she is now free, having gained thirteen pounds under treatment.

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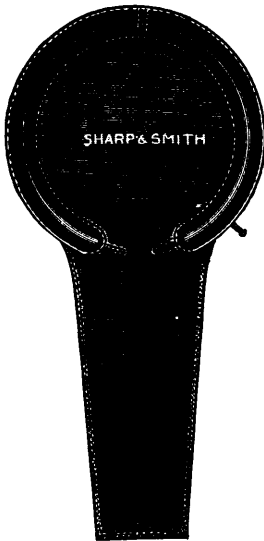
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FEEDING IN GASTRO-INTESTINAL CASES WITH OBSERVATION OF EFFECTS ON THE URINARY EXCRETION.

BY FRANK MASSEY, M.D.,

Member of Philadelphia Pathological Society and North West Medical Society, Asst. Physician Polyclinic Hospital.

WE all know, physicians and laymen alike, how grave a question is the feeding of not only the sick and those recovering from sickness, but also that large number of unfortunates, who, without being actually "sick and sorry," nevertheless suffer more or less from the protean manifestations of dyspepsia.

Take, for instance, ordinary cases of Chronic Gastric Catarrh, with its symptoms of pain and heaviness, swelling after meals, palpitation of the heart and headaches, sometimes diarrhoea (more often constipation), urine unduly colored, high specific gravity, and containing large amounts of urates, and probably uric acid or oxalates. The patient is nervous, irritable and often despondent. Here we have a class where medicines are of little use, but where diet and hygiene are the all-important factors.

Another class of patients embraces those who are suffering from such cachetic diseases as tuberculosis, Bright's disease, and the essential anæmias in which we have to deal with vomiting, almost uncontrollable diarrhoea, and apparent inability to assimilate even simple food stuffs, or simply a distaste on the part of the patient to all manner and kinds of food.

A third class, very common and equally difficult to control, viz., those who without being in any sense either invalids or sickly, have, from irregular habits, such as drinking, over-eating, irregular meals, or excessive work with nervous strain, impaired the digestive functions of the alimentary canal to such an extent that it rebels against the digestion of such foods as are given.

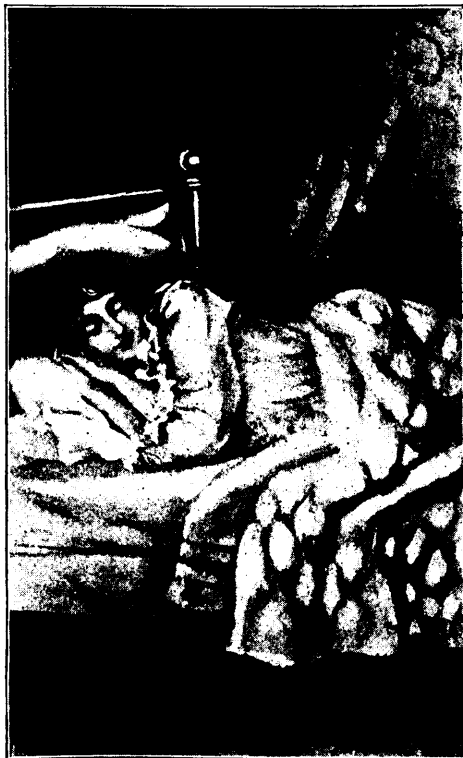
There are various and numerous other cases that come under the physician's notice where diet is the primary factor in the treatment. With these points in view, I beg to report some data which may be of interest, and serve to stimulate extended trials along similar lines.

CASE No. 1.—J. F., janitor, male, aged 53. Family history good. Always temperate, never used tobacco and has never been afflicted with any severe sickness. At about eight years of age he fell from a horse and broke his leg. Some weeks later, this leg was again broken in the same place. Since the second breaking, he has suffered more or less from pronounced tremors, and during the last three years has been the victim of insomnia. Has had dyspeptic symptoms for at least five years, and almost constant headaches for the past year. Bowels constipated. Gave him cascara sagrada for the bowels, and a mixture containing tr. nux vomica, pepsin and hydrochloric acid after meals, with restriction of diet.

Examination of Urine.—Sp. gr., 1024; albumen, none; sugar, none; urea, 1.47 per cent.; uric acid, .0564; sediment, large amount of urates, no oxalates.

Patient did not improve so far as his nervous symptoms were concerned and still complained of dyspeptic symptoms. I then placed him on Eskay's Albumenized Food, and strychnia sulphate gr. 1-30 q. i. d.

Examination of Urine after taking Food a week.—Sp. gr., 1019; albumen, none; sugar, none; urea, 1.65 per cent.; uric acid, .0483; sediment, very little.



THE BEST BED
FOR THE SICK

is made of high-grade curled horsehair interlaced into a soft, but compact, elastic and perfectly level mattress. It is then encased, but not tufted, in a satine ticking cover which can be quickly removed for washing.

The mattress itself can also be washed in hot or cold water without injury, and will dry almost as quickly as the tick.

The bed above described is called

The **B. M.** 
Sanitary Interlaced
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and is manufactured only by

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Write for illustrated booklet and price list.

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Is made from the best Canadian Barley Malt.
Is richer in Diastase and Maltose than any other made.
Is guaranteed free from foreign matter, such as Glucose,
Licorice, Salicylic Acid, etc.

Write for samples and literature to

W. LLOYD WOOD
GENERAL AGENT TORONTO, ONT.

Patient's digestion and appetite have improved, and his diet has been extended. Nervous phenomena have but little improved. However, patient feels much better in health.

CASE No. 2.—J. McD., laborer, male, aged 43. Family history good. Four years ago, he had "typhoid malaria," (?) and was in bed thirteen weeks. Has had cough and profuse expectoration since. Examination shows well-marked tubercular process under right clavicle to second rib. Is very weak. Been troubled a great deal with diarrhoea, some "sick stomach" but no vomiting. Was given a generous diet, with milk and whiskey. Administered bismuth and salol to control the diarrhoea, with strychnia and quinine as tonics. He improved for a time, then diarrhoea became serious.

During one attack the Urinary Examination was as follows:—Quantity passed in twenty-four hours, 23 ozs.; sp. gr., 1026; albumen, none; sugar, none; urea, 1.33 per cent.; uric acid, .0837; sediment, urates and uric acid in abundance and some oxalates.

The uric acid crystals were the largest seen by me.

To check the diarrhoea I ordered morphia, bismuth and salol, and put the patient exclusively on Eskay's Albumenized Food. The discharges were stopped, patient lost his "sick stomach" and relished the food very much.

The next Examination of Urine showed:—Quantity passed in twenty-four hours, 38 ozs.; sp. gr., 1021; Albumen, none; sugar, none; urea, 1.55 per cent.; uric acid, not taken, no deposition on standing; sediment, almost disappeared.

CASE No. 3.—H. I., clerk, male, aged 42. Family history apparently good. Patient has had Bright's disease several years. Has suffered severely from headaches, sick stomach, vomiting and vertigo.

Urine Examined before Treatment:—Quantity passed in twenty-four hours, over 64 ozs.; sp. gr., 1009; albumen, nearly 2 per cent. (Esbach's albuminometer); sugar, none; urea, .53 per cent.; uric acid in 100 c.c., not worth weighing; indican, well marked; casts, none; pus cells and renal epithelium.

He was placed upon Basham's Mixture, strychnia sulph. 1-20 gr. three times daily, and nitroglycerine for his headache. There was but little improvement. Headaches and vomiting continued.

Gave him Eskay's Albumenized Food for breakfast, supper and before retiring, allowed broiled steak or chops with soda crackers or stale bread and a little fruit for dinner.

Urine showed:—Quantity passed in twenty-four hours, 94 ozs.; sp. gr., 1011; albumen, 1 per cent.; sugar, none; urea, .68 per cent.; casts, none; indican, not so marked.

Headaches still severe but no vomiting.

A Third Examination of Urine showed:—Quantity for twenty-four hours, over 64 ozs.; sp. gr., 1010; albumen, under 1 per cent.; sugar, none; urea, .75 per cent.; casts, none; indican, only a trace.

Patient is reported as being much better in general health, but headache still troubling him a great deal.

CASE No. 4.—M. F., male, 39 years. Family history very fair. General health good. Has suffered more or less with dyspepsia for years. Must always exercise care with diet. Swells after eating. Has occasional severe bilious spells.

Repeated examinations of urine reveal nothing abnormal, except a marked acidity (uric acid varies from .0485 to .0857) and enormous quantity of indican.

He was put upon Eskay's Albumenized Food as sole diet for a week. The

Why Under the Hammer?

The significance of the test which consists of driving old mass pills into a board with hammer and block of wood has been questioned by some makers of the "solid kind" of pills.

This test is simply intended to supply the pharmacist and physician with a ready and quick means for estimating the age of factory-made pills and their therapeutic value.

It is effective in showing that there is a difference between **Fresh Mass Pills** and **Old Mass Pills**. The test shows the difference in hardness. Hardness must have some relation to therapeutic value. This is the teaching of pharmacy. The soft pill mass is insisted upon for the pills dispensed extemporaneously by the pharmacist. There can be no exception made in favor of manufacturers whose pills become progressively harder with age. The retail pharmacist cannot be asked with consistency to dispense soft pills extemporaneously and hard pills from the general stock. The stock of ready-made pills should be of the kind that does not deteriorate with age, and that preserves their quality of ready disintegration indefinitely. Upjohn's Friable Pills have these qualities and preserve them indefinitely.



THE UPJOHN PILL & GRANULE CO.

Samples and Price List free on application to

GILMOUR BROS. & CO., Montreal,

Sole Agents for Canada

indican appeared as a trace only and all dyspeptic symptoms entirely disappeared. General diet was resumed. Indican gradually increased, and dyspeptic symptoms began to return, only to disappear on returning to the Albumenized Food.

CASE No. 5.—E. Q., female, 56 years, married. Family history very indefinite. Has done hard work (washing and housecleaning) for fifteen years. Never any severe sickness, until the "grip" three years ago. Has never been well since. Bowels have been habitually constipated all her life. Complains at present of want of appetite, of severe pains on attempting to eat or even take liquids, of headaches and loss of sleep. (This is one of the worst cases of aggravated dyspepsia I have ever met with.) Restricted diet and the usual remedies in such cases were tried without any effect whatever.

Examination of Urine.—Quantity passed for twenty-four hours, 24 ozs.: sp. gr., 1023; albumen, present; sugar, none; urea, 1 per cent.; indican, marked; urates, large amount; uric acid, small amount.

Put patient on calomel, 1-5 gr., pepsin 3 grs., salol 3 grs., before meals and at bedtime, and Eskay's Albumenized Food, made with milk, as sole diet.

Mrs. E. Q. improved very materially, is able to take the food at all times without any distress following, and does not vomit when the food is used as an exclusive diet.

Next Examination of Urine.—Quantity for twenty-four hours, over 32 ozs.: sp. gr., 1019; albumen, a trace; sugar, none; urea, 1.23 per cent.; indican, a trace; casts, none; sediment, very slight.

Patient is too old (she is manifestly old beyond her actual years) and her gastric catarrh too advanced to hope for material physical improvement, but the food makes her comfortable, and she is very grateful for it.

CASES NOS. 6 and 7 are very similar in character and results.

CASE No. 8 is a drinking man, and frequently his stomach rebels against any food. He can, however, always retain Eskay's Albumenized Food when given at first in small quantities, about every two hours.

To sum up.—The urine in all cases examined, where there were marked dyspeptic symptoms, with high specific gravity, a large sediment, and indicanuria, showed a manifest tendency to improvement, as is to be confidently expected when a patient is put upon an easily digested, clean, wholesome food, as nearly sterile as possible, and hygiene carefully attended to.

In the cases of Mrs. E. Q. and Mr. McD. the improvement is to be traced directly to the "food" as almost every variety and modification of diet had been tried previous to the use of Eskay's Albumenized Food.

FLAVELL'S ELASTIC TRUSSES, fitted with their celebrated Pneumatic Pads can be worn day and night with comfort and ease. Are far superior and give more general satisfaction to patients than any covered iron appliances. A descriptive circular can be had at Flavell's, 1005 Spring Garden St., Philadelphia, Pa.

THE seventeenth annual announcement of the New York Post-Graduate Medical School and Hospital, University of the State of New York, for 1898-99, has just been issued. It shows that 523 practitioners of medicine have attended its courses during the past year. They came from the various States of the Union and the Dominion of Canada. There were ten physicians from foreign countries, two of these being from India and one from Japan. Only ninety-six were from the State of New York.

Progress in Surgery



SIR ASTLEY COOPER

Has been largely due to antiseptic preparations. One great want of the surgeon and general practitioner has been a surgical dressing that was thoroughly antiseptic and applicable wherever inflammation was present.

UNGUENTINE

fills this want. It is made upon the modified formula of Sir Astley Cooper, the most renowned surgeon in the world in his time. Its ingredients are Alum, Carbolic Acid and Ichthyol, combined with a pure Petrolatum base. Its superiority is due to the fact that all irritating properties are eliminated from the Alum. This gives a surgical dressing of marvelous healing qualities—that is astringent, but not irritating. It gives us a dressing that is indicated whenever inflammation is present.

The physician or surgeon who will give Unguentine a fair trial will find it the best surgical dressing ever made, with the widest field of usefulness. It is convenient because always ready when wanted. Keeps in any climate. Without acidity. Never grows rancid. Heals without leaving scar tissue.

We ask the profession to give Unguentine a fair trial, and judge it by what it does—not by what is said about it. Write to-day for a free sample, clinical reports and a biography of Sir Astley Cooper, originator of the working formula.

Successful Medication

ALUM COMPOUND

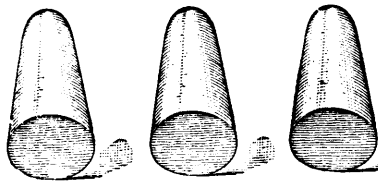
Vaginal Pessaries

**Astringent, Antiseptic,
Antiphlogistic, Analgesic.**

Alum (with its irritating properties eliminated) with Carbolic Acid and Ichthyol added.

Owing to the complete elimination of the irritating properties of alum these Pessaries will be found especially valuable in leucorrhoea, gonorrhoea, vaginitis, ulcerations and erosions of the os uteri, pruritis vulvae and as a general antiseptic, astringent or alterative remedy.

These have been submitted to leading gynaecologists who, after critical clinical tests, have heartily endorsed them. The size and shape renders their application exceedingly easy. The glycerine exerts a decided osmotic and decongestive action on inflamed tissues. Their prolonged contact on the tender surfaces of the vagina is a decided advantage over any treatment in which tampons or pads are used.



Haemorrhoid Cones

Formula—Alum (with its irritating properties eliminated) Ergotin, Menthol, Ichthyol, Ext. Opium, Ext. Belladonna and Carbolic Acid.

This formula recommends itself as an Astringent, Anesthetic, Anti-septic, Antiphlogistic remedy. The drugs have been scientifically combined making the cone perfectly non-irritating. Its adaptation to thorough treatment of internal haemorrhoids is all that can be desired. While the absorption of the medication is gradual, it is complete and immediate results are noticeable without pain or inconvenience to the patient.

To effect a cure without the use of a knife is desirable and Haemorrhoid Cones will for stall its use in many cases.

SAMPLES OF EACH SENT UPON APPLICATION

**THE NORWICH PHARMACAL COMPANY,
SOLE MANUFACTURERS, NORWICH, NEW YORK.**

RELIEF OF PAROXYSM IN DYSMENORRHŒA.

BY W. R. DALTON, M.D., NEW YORK.

AMONG the *dyscrasæ feminae* nothing so often presents itself to the physician for amelioration as *dysmenorrhœa*.

It is one of those diseased pathologic conditions, where, aside from all technical, gynecological knowledge, an urgent, absolute demand is made for immediate alleviation of pain. The mere cessation of pain leads the patient to believe in the skill of the doctor more than a discourse upon the finest powers of discriminating diagnosis.

That saturnine warrior, Napoleon, once said: "Give them grapeshot—quell the mob—then talk!" The sufferer echoes, "Give me relief from agony and then descant all you want to concerning pathological conditions."

To expect a drug to cure a *dysmenorrhœa* due to obstruction of the menstrual flow, caused by a stenosis of the os, is absurd, but to find a woman willing to be satisfied by a mere narration of causes alone, is equally so.

I have made it a rule, when called to a case of *dysmenorrhœa*, to relieve the pain at once, then, at my leisure, I can study out the cause. For all practical purposes *dysmenorrhœa* can be divided into two heads—constitutional and local. Systemic causes arise from a depraved blood supply, or neurasthenia. Local ones from some abnormality of the uterus, ovaries or Fallopian tubes. It is extremely difficult sometimes to make a differential diagnosis between these two—indeed, it taxes the utmost skill of the gynecologist.

It is not the purpose of this paper to discuss that subject. I only propose to devote a few lines to the medical-therapeutical side, and to present a few cases to demonstrate the beneficial effect accruing from the use of some remedies upon this distressing complaint.

CASE 1.—Miss H., December 6, 1896, aged 32, had suffered for ten years; weight, 112 pounds; anemic, no appetite. Upon examination found ante-flexion just above os, cervix thin and quite long, bent acutely; made forcible dilation and prescribed rest for two weeks in bed. Made good recovery, but caught cold in April, 1897, and presented herself again for treatment on April 19. Complained of insomnia, anorexia, and constant "bearing down pains," lasting for forty-eight hours from beginning of menstruation. Showed me "what passed" that day, which proved to be a case of membranous *dysmenorrhœa*, enough to excite suspicion. It was a large fragment, representing almost the whole interior of uterus, there being three openings in it, the external one and two others for Fallopian tubes. I prescribed chloral, extract *hyocimus* and camphor, which seemed at the time to relieve the spasmodic attacks, but at next period all the above mentioned symptoms reappeared. Gave her *cannabis indica* with belladonna and *asafoetida*, to be taken three times daily, beginning three days before contemplated attack. Very little relief obtained. Tried all sorts of anti-spasmodics and alteratives for the following four or five periods, but with rather poor results until I happened upon ammonol. "Eureka!" Ten grain dose was exhibited, followed in half an hour by another. Afforded complete relief in less than an hour. Since then she anticipates the *dysmenorrhœa* by taking a tablet, five grs., every night for two or three days before expecting the catamenial flow, and ten grs., two tablets, when the flow is established, with complete cessation of former distress and agony.

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Chemicals for medicinal use are recognized as the standard for Purity, Reliability and General Excellence.

When ordering, please specify—**MERCK'S**

COCAINE HYDROCHLORATE.	SALICYLIC ACID.	ALKALOIDS.
CHLOROFORM.	IODIDE OF POTASSIUM.	
LITHIA SALTS.	IODOFORM.	BISMUTH SUBNITRATE.

Please direct attention to MERCK'S

Hemogallol

It is the IRON-bearing proteid molecule of the red corpuscles of healthy animal blood, unaltered in its essential structure, and freed from adherent oxygen, discovered by Prof. Dr. R. Kobert, of the Sanatorium Görbersdorf. Hemogallol imparts to the blood: tone, vigor, color and substance. It is indicated in all cases of **Malnutrition**, and consequent **Pallor**, emaciation, exhaustion or nervousness: from care, worry, overstrain, excesses, irregularities, indoor or sedentary life, loss of sleep, general unrest, or from any other disturbance of the system.

Hemogallol Powder, Compressed Tablets or Tablets with Chocolate. Dose: adults, 8 grains; children, 4 grains, three times daily, half an hour before meals.

TO BE HAD OF ALL DRUGGISTS AND CHEMISTS, OR DIRECT OF

E. MERCK, Chemical Works, Darmstadt

MERCK'S ANNUAL REPORT ON APPLICATION

GOVERNOR OGILVIE'S OUTFIT.—The newly appointed governor of the Yukon, Mr. Ogilvie, who will shortly leave for Dawson City to assume his duties, is now busy equipping himself for the rigors of that extremely cold climate. In the place of blankets he and his party are taking eiderdown sleeping bags and eiderdown quilts made of strong canvas on the outside and lined with a pure natural wool. By an ingenious device the down interlinings are arranged in such a way that when the bag is in use every seam is protected by a layer of down, either inside or outside, and therefore provides absolute immunity from even the lowest temperature. The bag is waterproof and windproof and its weight is about that of two pairs of blankets. (Weight is an item of considerable importance in an arctic outfit.) The bags and the quilts are made by the Alaska Feather and Down Company, Limited, the well-known makers of high class bedding and down goods in Montreal.

INTESTINAL ANTISEPSIS IN FEVERS.—Though the typhoid, malarial and yellow fever epidemics in Cuba have not yet reached this country, it is well to guard against them by taking precautionary measures. If it be true, that the *materies morbi* of these diseases belong to the bacillus group, the remedies manifestly are an antiseptic and an antipyretic. As an intestinal antiseptic we have nothing better than salol. The consensus of opinion is in this direction. When we add the antipyretic and anodyne effects of antikamnia, we have a happy blending of two valuable remedies, and these cannot be given in a better or more convenient form than is offered in "Antikamnia and Salol Tablets," each tablet containing two and a half grains antikamnia and two and a half grains salol. The average adult dose is two tablets. Always crush tablets before administering, as it assures more rapid assimilation. It is not our desire to go into the study of bacteriology here; our aim is simply to call attention to the necessity of intestinal antiseptics in the treatment of this class of diseases. If in the treatment of these diseases, an intestinal antiseptic is indicated, would not the scientific treatment of the conditions preceding them be the administration of the same remedies? Fortifying the system against attacks is the best preventive of them.

FOOD AND TEETH.—George W. Williams, D.D.S., of Richmond, Indiana, one of the leading dentists of that State and a popular writer on dental subjects, in a recent article says: "Many of the prepared foods sold for children are destitute of the qualities necessary to form sound and painless bones and teeth, and there is a great difference in growing up with fine grained, well glazed teeth in comparison with having the brittle, chalky teeth we commonly see. Diet is of the first importance in promoting the upbuilding of the bony system, and incidentally we would state that as a food for this purpose there is nothing that will equal 'Imperial Granum.' It is a pure, unsweetened food, made from the most nutritious portions of the finest growths of wheat. No derogatory word has ever been uttered by the medical or dental profession against Imperial Granum and its bone-building qualities. Perhaps the most important period in childhood is when the first set of teeth are erupting. It has been calculated that one child in ten has its life destroyed in consequence of diseases which have their origin at this time. Thus it is evident that children should be watchfully cared for, and I believe that besides those who die from diseases readily traced to irritation during the eruption of the first teeth, a number are the victims of diseases superinduced by general neglect of the mouth and the consequent tooth decay and improper mastication of food."



(Trade Mar.)

BAYER'S PHARMACEUTICAL PRODUCTS

SOMATOSE A tasteless, odourless, nutrient meat powder; it contains all the albuminoid principles of the meat in an easily soluble form. It has been extensively employed and found to be of the greatest service in consumption, diseases of the stomach and intestinal tract, chlorosis and rickets. It is of great value in convalescence from all diseases. **SOMATOSE** strengthens the muscles and stimulates the appetite in a remarkable manner. Dose for adults: a level teaspoonful three to four times a day with milk, gruel, coffee, etc.

IRON SOMATOSE (Ferro-Somatose). A first-class tonic, containing the albuminous substances of the meat (albumoses) organically combined with iron. Special indications: Chlorosis and Anaemia. Daily dose: 75 to 150 grains.

MILK-SOMATOSE (Lacto-Somatose). A strength giving food containing the albuminous matter (albumoses) of the milk.

TRIONAL A most reliable and quickly-acting hypnotic of the Sulfonal group. Dose: 16 to 20 grains, in a large cup of hot liquid.

IODOTHYRINE The active principle of the thyroid gland. It is most efficacious in Strumous Diseases, Myxoedema, Obesity, Rickets, Psoriasis, Eczema, and Uterine Haemorrhages. Dose: 5 grains two to eight times a day for adults; 5 grains one to three times daily for children.

LYCETOL Tartrate of Piperazine Anti-Arthritic, Uric

Solvent. Has a marked effect on the diuresis. Dose: 16 to 32 grains daily.

ARISTOL An Iodine Cicatrisant which is an excellent odourless substitute for Iodoform and highly recommended for Burns, Wounds, Scrofulous Ulcerations, etc.

EUROPHEN A perfect substitute for Iodoform. Odourless and non-toxic. Has a covering power five times greater than Iodoform. Especially useful in *Ulcus molle et durum*.

LOSOPHAN A cresoltriiodide particularly efficacious in the treatment of all kinds of cutaneous disorders caused by animal parasites.

PROTARGOL A new silver preparation. Most reliable in cases of Gonorrhoea. Antiseptic wound healer. Excellent results in cases of Gonorrhoeal Ophthalmia. Solutions of ¼ to 2%. Ointments.

TANNIGEN An almost tasteless intestinal astringent. Most efficacious in Chronic, Acute and Summer Diarrhoeas. Adult dose: 8 grains every three hours.

TANNOPINE (Formerly "Tannone"). A new intestinal astringent. Special indications: Tuberculous and non-tuberculous Enteritis, Typhus. Dose: 15 grains, three or four times daily.

SALOPHEN Specific for Influenza, Headache, Migraine, Acute Articular Rheumatism, Chorea, Sciatica. Dose: 15 grains four to six times daily. In powders, etc.

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SANMETTO, LISTERINE AND CHLOROFORM.—Three great blessings to suffering humanity. Sanmetto and Listerine being as great as Chloroform.

H. DRENNAN, M.D., Verdery, S.C.

DOCTORS' SPECIAL SCOTCH WHISKEY, as manufactured by Robert McNish & Co., will be found a specially suitable form of stimulant for the sick during the stage of convalescence. It is very mellow to the taste and most palatable to those most particular in such matters. Physicians will find that their patients will rapidly improve under its influence,

THE body and aroma of Monsoon (Indo-Ceylon) Tea satisfies tea thirst perfectly. It permeates the palate with its grateful zest, and refreshes the system with its vitalizing strength. Yet, Monsoon is simply a carefully selected tea—without any of the usual artifices which make most other package teas heavy, astringent and so highly flavored.

NEW PRICE LIST.—We are in receipt of H. K. Mulford Company's new price list of Pharmaceutic and Biologic products. It is thoroughly revised and enlarged to 228 pages by the addition of new and enlarged sections. The catalogue is attractive in style and a compendium of valuable information. Among other new and interesting additions we note a list of standard ointments, soluble elastic capsules and granular effervescent salts. The nomenclature of their diphtheria antitoxin has been materially changed, a fact which will be appreciated by the numerous friends of this product.

ONE of the most embarrassing questions which frequently confront the doctor in his office work, especially in the fall of the year, when the evenings are short and the days as a rule dark, is what is the best form of artificial light for examination of the cavities of the body. Ordinary gas cannot always be used, and that at best is most unsatisfactory. Electric currents can only be obtained in cities. For all-round use, where a pure white light is desired without too much heat, acetylene gas comes first. It is cheap, and very clear and penetrating. We refer our readers to the advertisement of The Safety Light and Heat Co. of Dundas, Ont., appearing in this issue.

MEDICAL men should recollect in those days when a camera has become indispensable to the practice of surgery, especially so since the X Rays has come to be used so generally, that for an instrument which will give perfect satisfaction, and a lens which will yield wonderful clearness and the best of definition, The Gundlach Optical Co. of Rochester, N.Y., will be found a most satisfactory and reliable firm to deal with. This company manufactures also a line of microscopes which for pathological use are unsurpassed. Their objectives are superior to all others, and at the same time very moderate in price. We are pleased to put in a word in season for The Gundlach Optical Co., as we have used their goods and they have *not* been found wanting.

GRATIFYING ADVANCE.—The most gratifying of the recent advances in Medical Science is that which resulted in a sweeping reduction in the old-times uniformly high mortality from diphtheria and membranous croup. This reduction is variously stated at from one-half to three-fourths, and is large in proportion as Antitoxin treatment is employed early. The *International Medical Annual* for the current year make this statement: "If the profession and public once grasp the truth that, with rare exceptions, *no child ought to die of diphtheria*, it is probable that the actual mortality will become very low." In this connection it is gratifying to recall that the highest rate of recoveries ever recorded in a large number of cases followed the employment of Mulford's Concentrated Diphtheria Antitoxin.

BOVRIL

THE DOCTOR'S
ASSISTANT



THE PATIENT'S
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We shall be pleased to send sample, charges paid, to any Physician writing for same.

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25 and 27 St. Peter Street,
MONTREAL, CANADA.

SANMETTO IN URETHRAL AND BLADDER DISEASES—IN PRE-SENILITY AND ENLARGED PROSTATE.—In nearly thirty years' practice I have never written to the proprietors of any medicine extolling its virtues, but after some years' constant use of Sanmetto I can but say it is my sheet-anchor in all urethral and bladder diseases. In pre-senility it has no equal. Have recently used it in two cases of enlarged prostate with marked benefit in both cases.

GEO. E. GILPIN, M.D., Berkeley Springs, W. Va.

DURING the past twelve months O'Keefe's Malt Extract has been rapidly gaining favor with the medical profession. This preparation is made by a firm whose head has the minutest possible knowledge of brewing in all its branches, and in turning out his malt extract has followed the same course as he always has regarding the absolute purity of all ingredients and care in manufacture. We recommend O'Keefe's Malt Extract to the profession as an ideal food for a nursing mother, as well as for anæmics and dyspeptics.

WE direct the attention of the medical profession to the Gail Borden Eagle Brand Condensed Milk, as made by the New York Condensed Milk Co. of New York City. The great trouble in the past with so-called condensed milks has been that in some, when the tin is opened, the milk is found to have soured, making it unfit as an infant's food. The Eagle Brand, however, will be found to be always fresh and palatable and is made from the purest milk obtainable. As an infant's food it cannot be surpassed, and medical men will find it at all times satisfactory.

THE Griffiths & Macpherson Co., of 121 Church St., Toronto, are introducing to the medical profession a preparation which is said to be well-nigh a specific in asthma. It is Clarke's Kola Compound, and has been endorsed by a great many physicians all over Canada. This firm will be pleased to send a sample bottle to any medical man who will intimate his desire to have one by sending a postal card to above address. It is hoped that the profession will show their interest in a preparation which deserves their endorsement by using it in cases of bronchial asthma, as they will find that, as the manufacturers state, it will greatly assist convalescence.

A SHEET-ANCHOR.—On September 10, 1897, a well-known New York physician of The Third Avenue Cable Railroad Company returned to the New York office of the Norwich Pharmacal Company ninety-four one pound empty Unguentine jars. In a letter accompanying the jars the doctor says: "The jars I return to you represent the number of pounds of Unguentine I have used since December 1 last. I have from twelve to fifteen cases a day—motormen, conductors and stablemen—suffering from slight wounds, abrasions, cuts, bruises and burns, and about the only treatment I make is to give them a small box of Unguentine. It is certainly my sheet-anchor in practice, as in every instance it heals all the above cases quicker than anything I have ever used."

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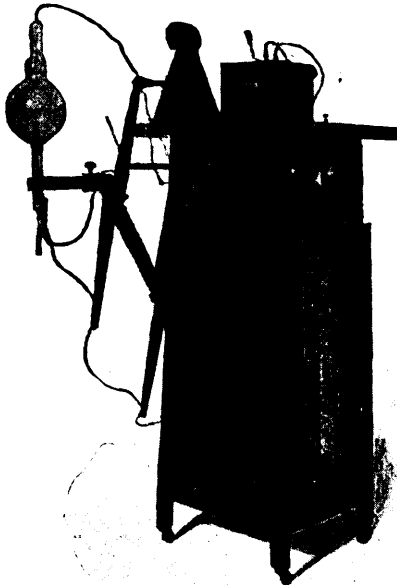
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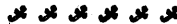
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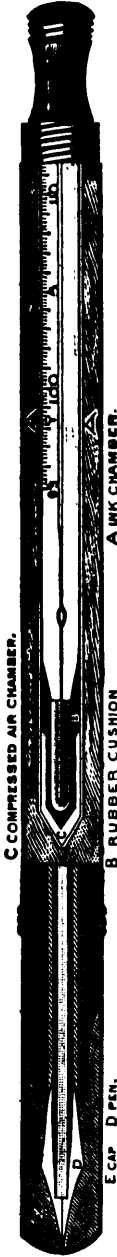
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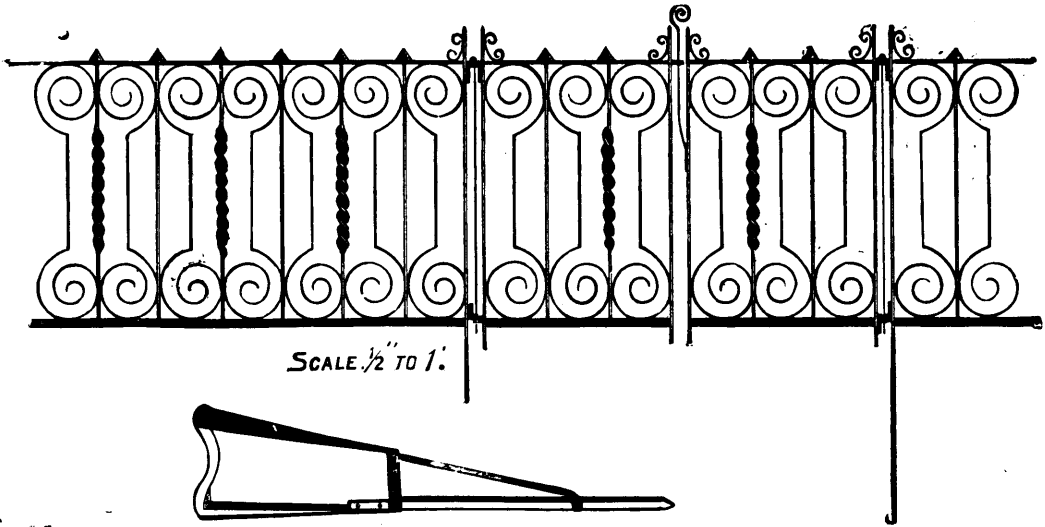
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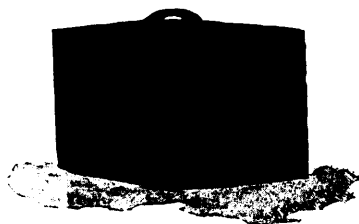
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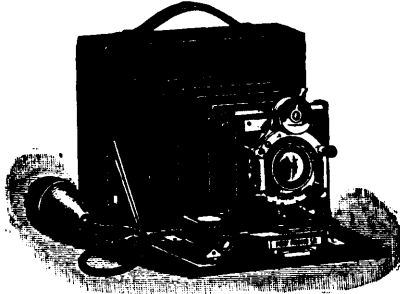
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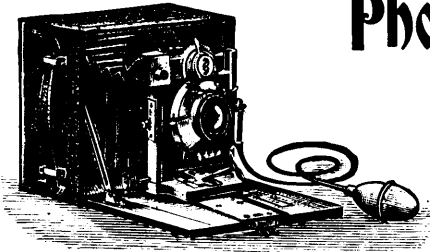


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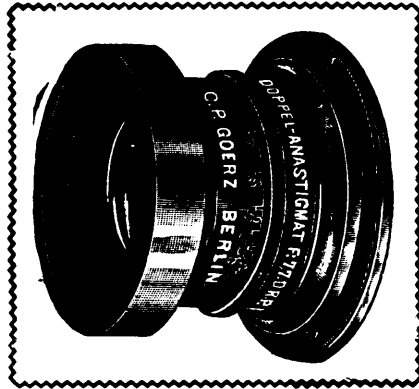
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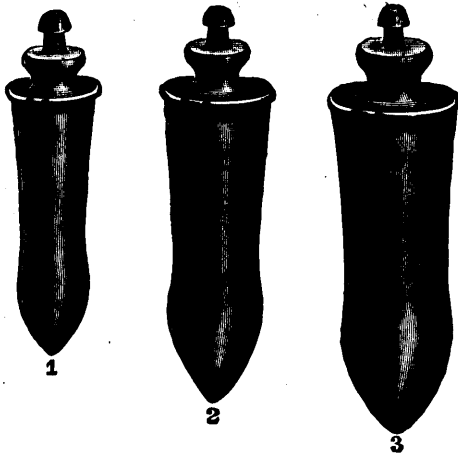
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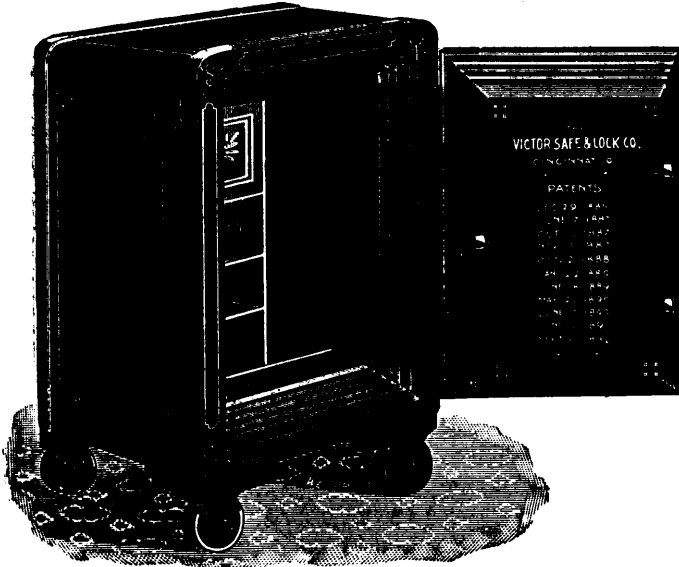
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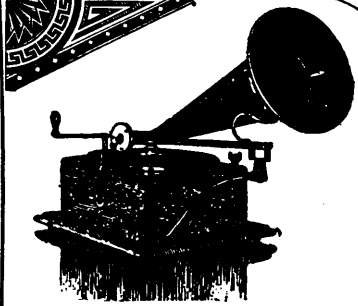
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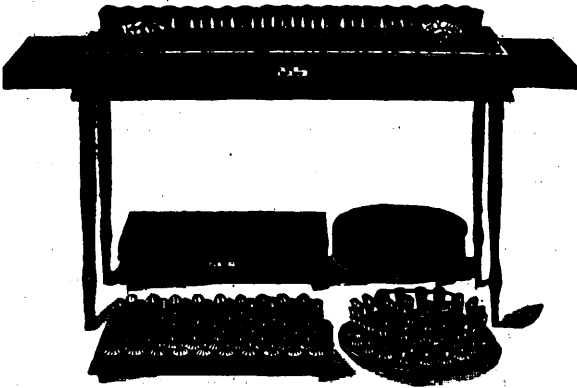
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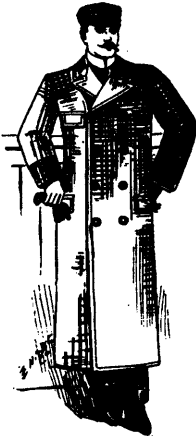
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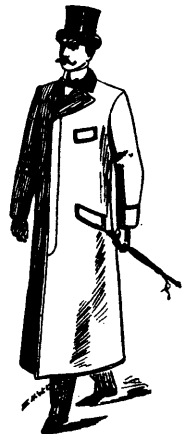
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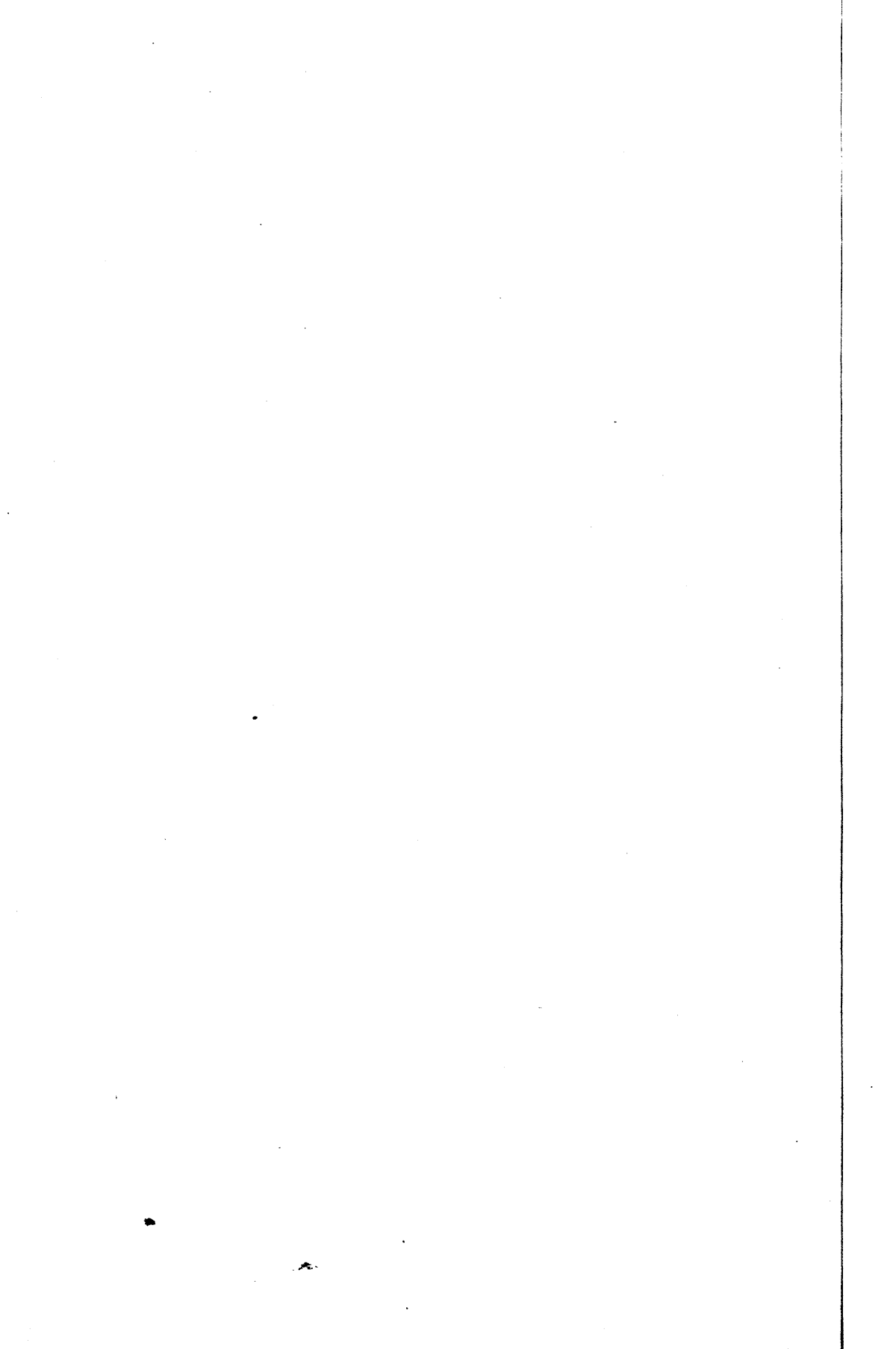


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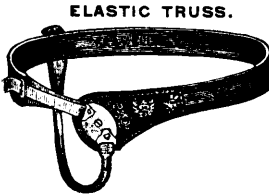
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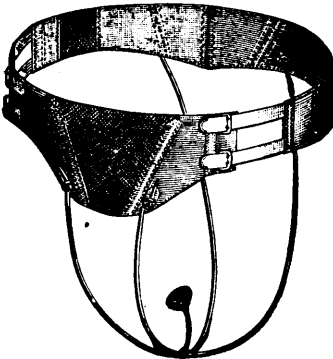
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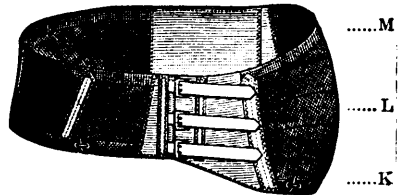
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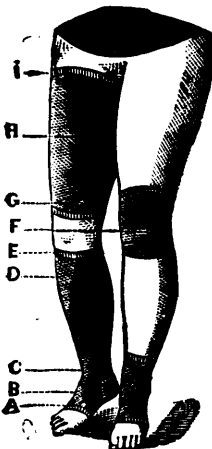
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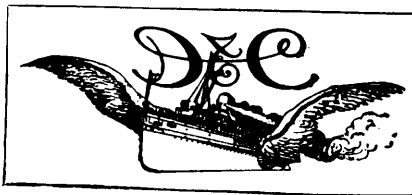
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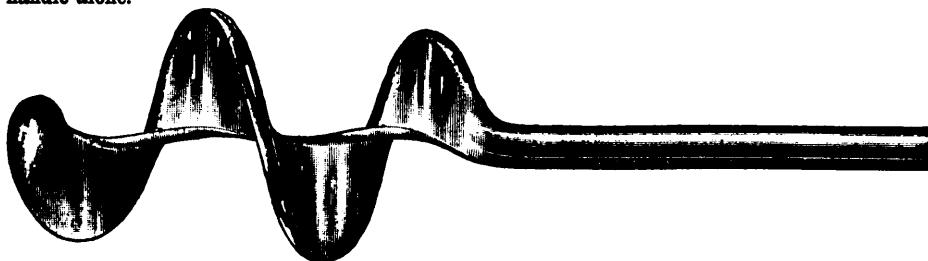
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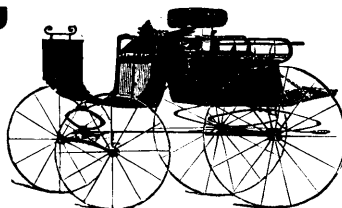
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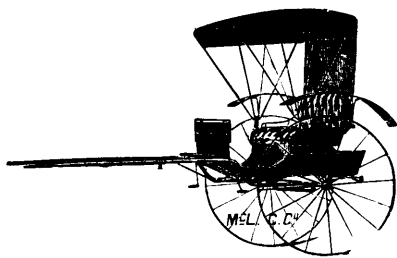
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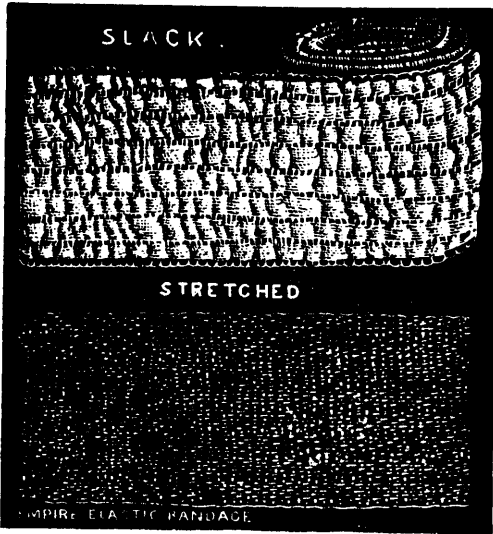
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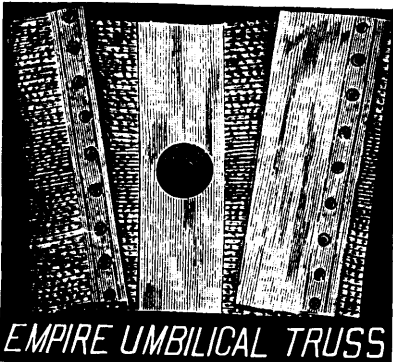
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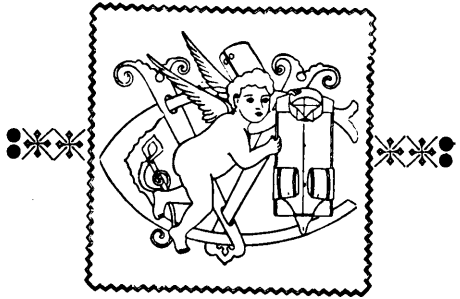
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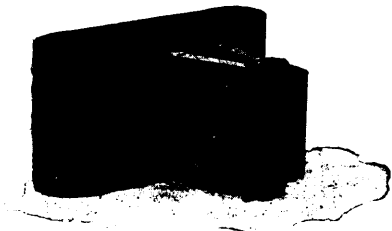
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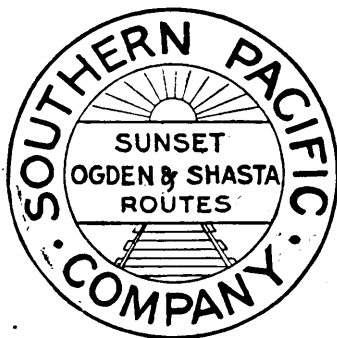
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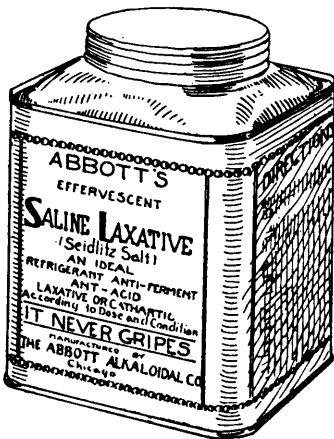
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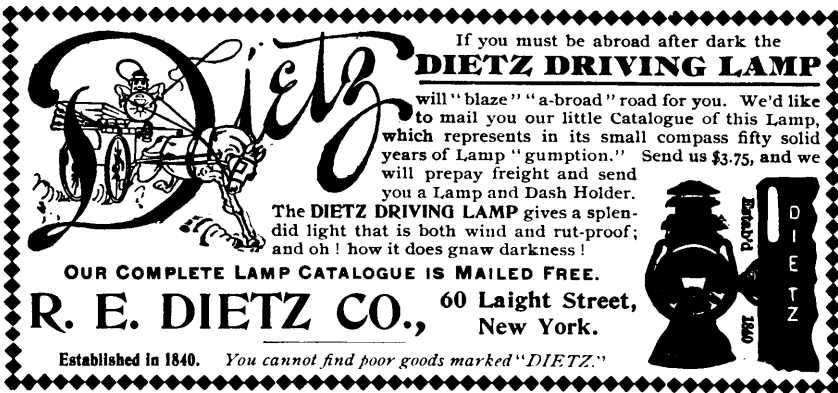
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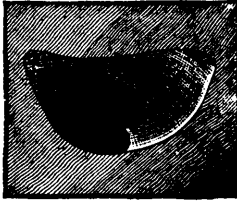
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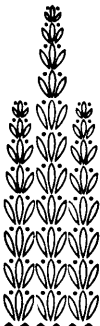


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