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ABSTRACT OF AN ADDRESS ON A PROPOSED SCHEME FOR A DOMINION MEDICAL COUNCIL.

BY T. G. RODDICK, M.D., LL.D., M.P.,
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As you are all aware, by the British North America Act, the subject of education was placed within the exclusive jurisdiction of the Provincial Legislatures. Section 93 of that Act reads: "In and for each Province the Legislature may exclusively make laws in relation to education, subject and according to the following provisions." These provisions do not, however, interest us, as they have reference entirely to common schools. This fact would give one the impression that professional education was not meant to be included in the section, or that it was overlooked or forgotten by those who were responsible for the framing of the Act.

The confederation of the Provinces had scarcely been consummated when our profession realized that a mistake had been made, and that the multiplicity of medical boards throughout the Dominion would lead to great abuses and untold complications. Therefore we find the Canadian Medical Association at one of its earliest meetings, in 1869, suggesting a Dominion medical bill, called "The Medical Act of the Dominion of Canada." This bill, most comprehensive, was presented before the Association at the third meeting, in the city of Ottawa; and after a long and somewhat acrimonious debate, was finally abandoned; and so far as I know, was never brought up for reconsideration. Doubtless the fact that the profession in Ontario had, in the meantime, put into

operation their own medical Act, militated against the greater scheme. I am inclined to think that other reasons for its early demise are to be found in the attempt made, practically, to expunge the provincial boards, and also to give a preponderating influence to the universities.

Nothing further was done, however, in this direction, until a very few years since, when, at a meeting of the Canadian Medical Association in Kingston, a committee was formed to discuss and report upon the question of interprovincial registration or some scheme of reciprocity, all with a view to harmonizing the practice of the profession throughout the Dominion, but more especially on the frontier settlements of the various provinces.

Little of a practical character was accomplished until last year, when the committee reported very fully, making among other recommendations the following: "That so soon as the various councils of the Dominion shall establish an examining board of the Dominion, conducted by examiners appointed by the Medical Councils of the several provinces, their candidates passing a successful examination before 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 they are not guilty of infamous or disgraceful conduct in a professional respect.

"Your committee desire to recommend that further efforts be made to ascertain the practicability of federal legislation leading to the establishment of a central qualification, which will also place the profession in Canada upon an equal footing with that of Great Britain, and that 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 following were named as a committee to strengthen Dr. Roddick's hands before the Government: Dr. McNeill, Prince Edward Island; Dr. Muir, Nova Scotia; Dr. Walker, New Brunswick; Hon. Dr. Marcell, Quebec; Dr. Williams, Ontario; Dr. Thornton, Manitoba; Dr. Bain, North-West Territories, and Dr. McKechnie, British Columbia.

(The delegates from Quebec on the committee could promise nothing with regard to a central examining board for the Province of Quebec, the universities having already positively refused to surrender their charter rights.)

Feeling the responsibility of this charge, I have been engaged more or less, ever since the meeting, collecting information from various sources (among others from the law officers of the Crown),

and am now in a position to place before the profession of Canada a scheme which, if acceptable to the various medical boards of the Dominion, may, I trust, with some modifications, become law at no distant date.

At first sight it would seem as if any plan were impossible that looked to united action. The Dominion Parliament cannot, on the one hand, infringe on the provincial jurisdiction, while, on the other hand, the Provincial Legislatures cannot unite in creating a central or federal medical board, because their powers are, in each instance, confined strictly to their own territory. If this opinion be correct, any scheme looking to interprovincial registration, or, in other words, any bargain made between the profession in the various provinces, or between the Boards as representing the profession, would be *ultra vires*.

Under Section 91, however, of the British North America Act, the Dominion Parliament has power "To make laws for the Peace, "Order and good Government of Canada, in relation to all matters "not coming within the Classes of Subjects by this Act assigned "exclusively to the Legislatures of the Provinces." Under these general terms it is believed that the Dominion Parliament may create a corporation for such objects relating to medical education and practice as are of general Dominion interest and importance, and as are beyond the provincial powers.

Uniformity of medical education and the promotion of interprovincial registration are just such objects. The plan by which it is now proposed (for our purpose) to effect them is as follows:

By an Act of the Dominion Parliament, a corporation may be created, called, let us say, *The Dominion Medical Council*, which would be composed of medical practitioners from each province and from the North-West Territories. The principal function of this council would be to register all persons who have complied with certain requirements, as to education and training for the practice of medicine and surgery, and all applicants who shall have complied, would receive what might be termed Dominion registration by the council.

This registration would, however, *per se*, confer no right to practise in any province of the Dominion. The Dominion Parliament has, of course, no power to make such an enactment; but it is within its power to enact that such registration shall alone confer the right to practise in any of the territories over which it has direct legislative control; and it may provide that such registration shall be a condition of employment in any medical capacity in the active service of the Dominion, as, for example, the quarantine service, penitentiary surgeons, mounted police surgeons, the surgeons of the militia force generally, etc. Besides another important result of the establishment of such a system would be that medical practitioners registered under it could claim registration under the Imperial Medical Act of 1886, without undergoing further examination. By this Act (as you are aware), where

parts of a British possession are under both a central and a local legislature, the authority of the central legislature is requisite to entitle a colonial practitioner to British register. Under the existing systems of provincial registration, Canadian practitioners are debarred from entering the extensive field of medical employment in the various departments of the Imperial service, such as, for example, the army and navy, the Indian medical service, the colonial medical services, medical service under the *Loam* of Trade, including ships' surgeons, etc., also from employment as sanitary officers in the United Kingdom.

At this point, however, the powers of this council would cease. *In order to bring about what we most desire*, viz., interprovincial registration, all the medical boards in the Dominion would have to be consulted, and their consent obtained to the passage of a short Act in their own Legislature, giving the right to any person registered under the Dominion Act to practise in any province, subject, of course, to the payment of any fee that the Province may impose. It will have to be shown further, that the person obtaining Dominion registration has given evidence of possessing qualifications at least equal to those required for registration under the existing law of any province. In other words, the educational standard as to preliminary examination for study, the professional curriculum followed and the final examination must be fixed by the Dominion council at a level as high as or higher than that of any province, with power in the council to keep it always so; and in case of failure at any time to maintain the standard, the Governor-General in Council might have power to intervene.

In the case of some of the Provinces, where the medical councils already possess the power of determining such equivalents, this matter could, perhaps, be arranged directly by these councils. The medical councils of Ontario, Nova Scotia and the North-West Territories have by recent enactments obtained such powers.

It will be observed that the proposed plan avoids in every possible way any encroachment upon the exclusive right of the Provinces as to maintaining their own system of medical education and registration. *I fully realize that any scheme, to have a sound constitutional basis and prove acceptable in working, must not encroach upon the provincial autonomy.* The various provincial medical boards or councils (as they may be termed), shall continue their work of examination and registration as before, and to them shall be left all questions of taxation, discipline, etc. In a word the establishment of a Dominion Medical Council would simply provide a direct and efficient way of interprovincial registration, while promoting a high level of professional education.

One of the most difficult problems in connection with this subject is the composition of the proposed council. It is evident that it must be thoroughly representative of the Provinces; and as it will have to deal with professional questions, it should be kept above the plane of political interference. The matter, however, being one of great public importance, and the assistance of the

Dominion Parliament being invoked, some provision would doubtless have to be made for the representation of that interest.

Let me suggest, then, that a Provincial Council consist of three classes of members, all of whom would be registered medical practitioners:

(a) One from each Province, including the North-West Territories, to be appointed by the Governor-General in Council.

(b) One from each Province, including the North-West Territories, to be appointed by the Medical Council of the Province.

(c) The President of each Provincial Medical Council to be an *ex-officio* member.

This would give a council of twenty-four members.

It is a question whether all the Provinces should have an equal number of members in the council as permanently constituted, or whether the representation should be in some measure graded according to the relative number of practitioners in each Province. In any case it would be desirable to keep the council of moderate number, for ease and efficiency of working, and to secure a representative majority at all times.

Now, so far, the outline of the proposed scheme deals only with students of medicine wishing to qualify themselves for practice in all or any of the provinces which accept Dominion registration as sufficient evidence of professional capacity.

With regard, however, to medical practitioners actually practising at the time of the passing of such an Act, should the right be given them to avail themselves of the privileges under the Act admitting them to practise in other provinces than that in which they had originally qualified? Should it be retroactive?

Many objections would doubtless be raised to such a clause, especially by the profession in the younger provinces who might dread a stampede in their direction. This could readily be overcome, however, by making some time limit, say, five or seven years of actual practice, coupled with evidence of good professional standing. Medical men in practice for that length of time would not be so likely to migrate as the more recent graduates.

There are many matters of detail that might be introduced, but my chief purpose to-night is to excite a discussion on the general practicability of such a scheme as that which I have endeavored to outline.

The present state of affairs in connection with the practice of our profession in this country is anomalous, and exists, perhaps, nowhere else. Where we have simply imaginary lines or narrow rivers separating our provinces the present arrangements must continue to lead to hardships, both to the public and to medical men themselves, and sometimes to grave abuse. Besides, the provinces are all congested, the number of medical men being far too numerous in proportion to the population. This scheme would not only lead to a more equable distribution, but it would throw open the entire British Empire to our Canadian youth who have adopted medicine as a profession.

ON THE ROLE OF THE GONOCOCCUS IN SURGICAL PATHOLOGY AND SECONDARY INFECTIONS.*

BY THOMAS H. MANLEY, M.D., NEW YORK,

Professor of Surgery, New York School of Clinical Medicine; Visiting Surgeon to Harlem Hospital.

It is most extraordinary to note, what recent researches have done in the way of demonstrating the dreadful lethality of various types of gonorrheal infection. But, many years ago—now more than a century—the celebrated Hunter proved that gonorrhoea was something more than a harmless infection and was more destructive than syphilis, if indeed, it was not but one phase of this malady.

Ferro has shown that so great is the virulence of some types of gonorrhoea, that the gonococcus can enter tissues without any pre-existing lesion, "for," he asserts, "if a virulent culture be simply touched on the meatus urinarius the disease will be established." It is curious to note that Von-der-Pegu insists on the importance of a bacteriologic examination in all forms of urethral inflammation, because, he claims, this may be produced by colon-bacillus and staphylococcus-pyogenus. In this connection it is interesting to observe, that Walsh claims that the epidermis-staphylococcus always penetrates deeply into the Malpighian layer, while we always have on epithelial surfaces a harmless saphrophyte, which, however, may promote suppuration—the staphy-pyogenus-alba. Bumm and others have found cocci simulating the true blennorrhagic in the healthy urethra, and declared that neither the shape nor the grouping in the epithelia, is positively characteristic or diagnostic.

Bangs is a strong believer in the innocent propagation of gonorrhoea, as Kratter was able to demonstrate the presence of gonococci upon washed clothing, six months after the original soiling.

It is rather remarkable, however, that a disease which is said to possess such tenacity and such contagious properties is not more widespread.

On this, McFarland observes that "one of the most astonishing facts observed in physiology or pathology, is the resistance which certain animals show to the invasion of their bodies by the germs of disease." It might be added that this immunity which often baffles scientists and constitutes one of the greatest barriers to the germ theory of disease, is not only true of animals, but also organs and structures of the same body.

Sternberg says that the mucous-membranes which are peculiarly susceptible to gonorrheal infection, are those of the urethra, the conjunctiva, the cervix-uteri; and, the vagina in children; though this escapes in adults.

In May, 1767, John Hunter inoculated himself with gonorrhoea, by puncturing his glans-penis and prepuce with a lancet dipped in

* Written specially for THE CANADIAN JOURNAL OF MEDICINE AND SURGERY.

the secretion. Both incisions were then cauterized. They then healed, but suppuration followed, and later, the most virulent type of syphilis followed. This experiment on his own body very naturally convinced Hunter that gonorrhoea was something more than a local disease. Recent events have quite fully sustained Hunter's position, though the weight of opinion is, that gonorrhoea and syphilis are by no means identical.

Scientific advances have demonstrated, that of all causes there is none so potent in provoking suppuration in the pelvic organs of women as gonorrhoea; and that, in the male, of the many grosser lesions of the kidney necessitating radical surgery, none plays a more important role as an etiological factor.

In former times, the arthritis, the iritis, the pericarditis and other more remote effects of blennorrhagia were said to be "metastatic," but now we have proof that infection is directly conveyed, either through the blood-stream or the lymphatics.

For some reason not yet clear, the secondary infections of gonorrhoea have, like the toxic agent of rheumatism, a special affinity for the fibro-serous structures, as the peritoneum, the meninges, the pericardium, the pleura, iris and joint envelopes. It is well when these parts are the seat of acute inflammation in young people, to inquire into the previous history of the patient, whether or not they have not had a recent, acute attack, the discharge suddenly ceasing; or whether, there may not have been a recrudescence, in a chronic, imperfectly cured case.

Once assured that the system is infected, and a life is imperilled, Fournier and Record to the contrary, notwithstanding, we must accept the dictum of Hunter and speedily saturate the system with mercury, or all is lost.

MY LOVABLE FRIEND THE LAPIDO-MANIAC.

BY ALBERT S. ASHMEAD, M.D., NEW YORK.

CAPTAIN SAMUEL W. DEWEY, seventy-five years of age, a diamond-tester by trade, lived in Philadelphia. He wore, winter and summer, a long rather heavy overcoat, double-breasted, ornamented with two rows of brass buttons. This coat was further remarkable by an enormous number of pockets; there were no less than fourteen in it. His collar was equally phenomenal, being exceedingly high and stiff, and encompassed by an old-fashioned black stock. He was a retired sea-captain; he had followed the sea for twenty-three years. It was his great love for mineralogy which made a diamond-tester of him. That love produced its first practical effects at so advanced an age, sixty, that there was something phenomenal in that, too. It was perhaps the habit and delight he had of looking at smooth, brilliant stones that made it

impossible for him to look at his own face in a hirsute state; it was always polished, that is, shaven. His eyelids, when he spoke to you, were always moving rapidly, which reminded you also of the glitter of a diamond. When he spoke of his favorite subject they were, however, devoutly closed.

Just as there is in a brilliant, something that catches at once, keeps and delights the eye, so there was in the expression of his face, a charm of benevolence which took possession of you at once and kept your attention irresistibly. His face was lovable, and I knew no man to come in contact with him without loving him. His home was a second-story back room in a Philadelphia dwelling-house. But he made apparently little use of it. He liked to roam about second-hand book-stores and hunt for old books on gems, which he used to read in somebody else's room, mostly at night. He lived on St. John's bread, loaf sugar, and crackers. He has spent many entire nights in my office, ruthlessly burning my gas till the peep of dawn, reading some tattered, yellow-leaved and curiously smelling cadaver of a book just resurrected from a common sepulchrum. And with what exuberance of eloquence and enthusiasm, with what beaming eyes he would exult over his luck, and praise his conquest, and explain to you what treasures it contained, the equal of which no other book could own, not the Bible, nay, not even the Koran or the Zend Avesta!

I am sure that any reader of ordinary acumen understands or guesses at once what was the use of his fourteen pockets; none was empty, for they were his library, his safe, his larder, his museum. They contained diamonds, pigeon-blood rubies, topazes, amethysts, the stones of the twelve tribes of Israel, books, St. John's bread, a few pennies, his precious tests, etc. He had two tests for diamonds. One was a sharp-pointed stone, in the shape of a lead pencil, which, by scratching, determined the hardness of the gem under examination. This test was original with him. While traveling in North Carolina many years before, of course on a mineralogical excursion, he found that a certain stone which he had picked up rattled, and that it was elastic; when he made sections of it, it appeared that its crystals were of a peculiar sort unknown to him, being loosely hooked together instead of faceted. He took this stone to Professor Henry, of the Smithsonian Institution, and for twelve years tried to make him place it as the Adamite stone, that is, the *vertebrated* stone of the mineral kingdom. As man is the head of the animal kingdom, said Captain Dewey, this stone was the chief of the minerals. Professor Henry was of a cold nature that could not see the thing in the same light; he would have nothing to do with the vertebrate stone. The stone was then submitted to Professor Agassiz, or Professor Agassiz to the stone. It appeared then that the skull of Professor Henry must have been of enormous thickness, pachyosteal in fact, for what Captain Dewey had tried for twelve years to hammer into it without success, penetrated the gray matter of Professor Agassiz with the

rapidity of lightning. Here was indeed the Adamite stone. Afterwards Captain Dewey, in experimenting with the stone in a crucible, found that heat intensified its hardness and permitted it to scratch all other stones except diamonds and sapphires. Rating precious stones then from 1 to 10, the diamond being at the top, the Adamite would scratch all up to nine. It was, therefore, a test for the diamond, the color of the sapphire (9) being characteristic enough.

The second test was a solution of carbon and gave only the brilliancy of the stone, as it would show through the carbon water. You see that the Captain was in mineralogy, in the knowledge of precious stones, a perfect expert. He was the tester of Bailey, Banks & Biddle, and James E. Caldwell & Co., of Philadelphia.

He claimed distinction for two things only: the discovery of the Adamite, and for having sawed off the wooden figure-head of General Jackson from the United States frigate *Constitution* in Boston harbor, having swum out, on a stormy night, a mile and a half in the harbor to perform this patriotic feat. (Andrew Jackson was a hated man in Boston.) I do not know how much they gave him for that in Fort McHenry.

These were the great performances of his life, and comparing the latter to the first we may well say, *dissimile hoc illi est*. Yet I believe he enjoyed their remembrance equally.

His two tests were always carried each in a tin box with a brass padlock; but his precious stones were borne loosely in his pockets—diamonds, pigeon-blood rubies more valuable than diamonds, emeralds of enormous size, etc. He took them out at times, content to enjoy, absorbed and chuckling, their beauty of cut and their brilliancy.

Carbolic-acid Poisoning.—In a case of carbolic-acid poisoning by vaginal douches the patient felt extreme burning as soon as the syringing was begun; nevertheless, the entire fountain-bag was allowed to empty itself. In a few minutes the patient complained of agonizing pain all over her pelvis, and began to shriek with suffering. On examination the tissues were found to be very tender to the touch, and large eschars appeared wherever the solution had touched the skin. *Treatment:* The patient was immediately syringed with a warm solution of sodium sulphate, one drachm to the pint, and cloths saturated with the same solution placed on her blistered thighs, etc. Within ten minutes she felt somewhat relieved, and in thirty minutes all pain was gone. Saturated cloths were kept on the blistered parts all night, and next day the patient was perfectly well. Sodium sulphate forms with carbolic acid sulphocarbonate of sodium, which is soothing in effect and prevents the carbolic acid from doing further damage.—B. WEISS, *New York Medical Journal*, January 7th, 1899.

Clinical Medicine....IN CHARGE OF...
ALEX. MCPHEDRAN, M.D.**THE ADIRONDACK COTTAGE SANITARIUM FOR THE
TREATMENT OF INCIPIENT PULMONARY
TUBERCULOSIS.**

BY E. L. TRUDEAU, M.D., SARANAC LAKE, N.Y., U.S.A.

THE Adirondack Cottage Sanitarium was the first institution in America to attempt the cure of incipient tuberculosis in persons of moderate means. It had its origin fifteen years ago in a desire on the part of the writer to make a practical application of the sanitarium methods of treatment adopted by Brehmer, and to extend the benefits of these methods and of an open-air life spent under good climatic influences to working men and women whose lives are constantly sacrificed on account of their pecuniary inability to avail themselves of these means of restoration.

In 1884, by personal appeals, a few thousand dollars were obtained, with which one small cottage and a wing of the intended main building were erected. Each year the work was developed step by step, and the running expenses met, principally through the generous aid of guests at Paul Smith's Saranac Inn, and other hotels in the Adirondack region, who contributed and held annual fairs during the summer for the benefit of the institution. Its growth has been steady and uninterrupted, until a small village consisting of twenty-two cottages, accommodating one hundred patients, now stands on the original site where, fifteen years ago, the institution made so humble a beginning.

The requisites for admission to the sanitarium are that the applicant should be in the earlier stages of the disease, or, at least, that in the opinion of the examining physician he has a fair chance of more or less complete restoration to health, and that his pecuniary circumstances should be such that he cannot afford to pay the usual prices asked at the hotels and boarding houses in the region. Every effort is made to reduce to a minimum the expenses of the patients who wish to avail themselves of the advantages of the institution. The regular charge—five dollars (or one guinea) a week—is made to all alike, and includes everything except laundry and medicines, which are furnished at cost. No charge is made for medical attendance, and there are no accommodations for private patients.

The deficiency in the running expenses is made up each year by subscription. An attempt to place the institution on a firm financial basis has also been made; and, principally by personal appeal, an endowment fund of 120,000 dollars (£24,000) has already been secured, which it is hoped, by bequests and subscriptions, may some day grow sufficiently to assure the permanence of this work for all time.

The sanitarium also has a small free bed fund, the income of which is applied to defray the expenses of patients whose resources have entirely given out. Last year twenty-one were maintained for varying periods of time without charge, and twenty others had their expenses paid by benevolent persons interested in the work.

Since the wards of general hospitals in the past had shown that aggregation is a real danger to the consumptive, the cottage plan was adopted from the first, in spite of the greater cost of building and operating an institution on this plan, although the germ origin of tuberculosis was not as yet generally accepted. The new light thrown by science on the infectious nature of the disease, and an experience of fourteen years in developing a sanitarium on this plan, have but strengthened my confidence in this method of construction, which represents an attempt at segregation, separates patients as much as possible from one another, and affords each individual so large an air space as to make it difficult, when rigid precautions as to the care of the expectoration are enforced, for the buildings to become contaminated. Besides, it affords patients a regular walk to and from their meals, which are served in the main building, encourages them to lead an out-of-door life, and allows them to select as companions those who are congenial to them and to avoid unnecessary contact with those who are not.

The cottages of the Adirondack Sanitarium are one-story buildings, which accommodate from two to ten persons each; but the greater number have a capacity for four or five inmates only, and these have been found the most satisfactory. Each patient has his own room, which opens into a central sitting-room in direct communication with the veranda, on which the out-door plan of treatment is carried out, a good shelter from the prevailing winds being secured by means of a single glass screen. The partitions between the sleeping and general sitting-rooms reach but seven feet from the floor, an arrangement which gives the patient the benefit of the entire air space of the cottage, and allows of it being heated by a single fire-place or stove situated in the central sitting-room; but the walls which separate the sleeping-rooms from each other reach to the ceilings, and are of solid construction. Good ventilation is insured by transoms located over the front veranda. In the main or administration building are to be found the dining-room, kitchen, reception and general sitting-rooms, superintendent's and doctor's offices, rooms for servants and nurses; while the upper floor of the building is

devoted to large rooms to a limited number of patients. The library, recreation pavilion, doctor's cottage, chapel and infirmary are all separate buildings. Should any patient in one of the cottages become rapidly worse or be taken suddenly ill, he is at once removed to the infirmary, where every convenience for his care and proper treatment is at hand. The separation of those who are failing rapidly, or are acutely sick, from the comparatively well not only furnishes the former with the constant and necessary attention and nursing which they require, but withdraws them from the daily observation of their more fortunate cottage mates, and prevents in these the depression which would otherwise occur from the contact of the very sick. The success of this plan is attested by the general cheerfulness of patients while in the institution, who, contrary to what might be supposed, are very rarely depressed in spirits at their enforced exile.

The efficacy of the cottage plan, when combined with rigid measures for the care of the expectoration, in protecting the patients from the dangers of infection, has been well shown by the experience gained at the sanitarium. A study of the dust of all these buildings, by Dr. Irwin H. Hance, indicated that, with one exception, the dust taken from these cottages failed to infect guinea-pigs when injected subcutaneously in these susceptible little animals, although the buildings had been inhabited by consumptives for many years. The exception was a small cottage accommodating but two patients, one of whom had already been reported for carelessness in the matter of expectoration. Additional evidence bearing on the protection against infection afforded by the methods in use at the sanitarium is furnished by the significant fact that during fourteen years not a single employee has been known to have contracted tuberculosis in the institution.

It has been objected by some, familiar with all the foreign sanitarium which are not on the cottage plan, that this method of construction makes it impossible for the patient to be under the constant supervision of the physician. To my mind, however, this objection has but little weight when applied to an institution which treats only early and favorable types of pulmonary invalids, because almost all these patients are so well as not to require such constant supervision, and those who are in need of it are placed at once in the infirmary, where they are constantly under the physician's and nurse's eyes. Indeed, the infirmary should represent on a small scale the ideal foreign sanitarium, with its nurses, conveniences, and many appliances for treating the more advanced and acute types of the disease. But at the Adirondack Cottage Sanitarium the number of this class of patients is limited to those who are suffering from some of the accidents incident to the disease, or who have grown worse while in the institution. The only valid objection which I know of to the cottage plan is the greater expense entailed in constructing and operating so many detached buildings.

As a laboratory for bacteriological work seemed an indispensable requisite of the outfit of such an institution as the sanitarium, the Saranac Laboratory was established in 1894 in connection with the institution. Besides the valuable aids which laboratory methods bring to the study of the disease and the diagnosis of obscure cases, it is to these methods that we must look in future for much needed light upon many of the still unsolved problems relating to etiology, prophylaxis and disinfection, and through their application only can we reach satisfactory conclusions as to the real value of many of the specific methods of treatment which are constantly proposed, or make any advances in the development of such methods.

In combating tuberculosis, however, we must at present rely on prevention and the early detection of the disease. Familiarity with the results obtainable by sanitarium methods emphasizes the importance of an early diagnosis and a prompt resort to radical measures.

Rigid rules as to the selection of suitable cases for treatment are by no means easy to lay down in a disease which runs so irregular a course. The first rule is to make as early a diagnosis as possible, for the earlier the diagnosis is made the better will be the prospect of effecting a cure or arresting the progress of the destructive process. The first few months after the onset of the disease present often the one golden opportunity of re-establishing the balance of health, and many lives are constantly sacrificed by the neglect of this opportunity. If the curability of the earlier stages of tuberculosis could be more generally accepted, and for this reason the grave responsibility which rests on the physician in making an early diagnosis better realized, the patient's best chances of recovery would not be so constantly sacrificed.

The apathy of the profession as to the importance of making an early diagnosis seems almost incomprehensible, and would indicate that the general opinion held is that climatic and sanitarium treatment should be advised only as a last resort. The microscopical examination of the expectoration, instead of being repeatedly applied as soon as any expectoration is obtainable, is very generally neglected, or only resorted to when the symptoms have become unmistakable, in order to confirm the diagnosis.

Fourteen years ago but few really incipient cases presented themselves for treatment, and the earlier stages of the disease were generally labelled pleurisy, bronchitis, or malaria, until hemoptysis, rapid emaciation, marked hectic or cavity signs appeared. But the microscope and the light which had been thrown on the etiology of pulmonary affections by the discovery of the germ origin of tuberculosis, and the variety of its many manifestations, have already wrought some change for the better in this direction. The occurrence of slight hemoptysis as an initial symptom, and before any constitutional impairment is noticeable should be a most fortunate event for the patient, and

in many cases proves to be the first symptom of pulmonary tuberculosis. Such an occurrence makes imperative a most careful study of the rational and physical signs, together with a microscopical examination of any expectorated blood or sputum obtainable from the patient. Unfortunately, he is too often lulled into a false, and to him a most acceptable, sense of security, by the verdict that it is nothing—that the bleeding came from his throat or his stomach—and he continues his usual mode of life until a more alarming hemoptysis or the occurrence of constitutional impairment makes the nature of his malady evident.

The fully developed chest or comparatively robust appearance of many patients with early tuberculosis often proves misleading to the examiner, and induces him to relax his vigilance, to minimize the symptoms, and to wait for further developments. Too great reliance is, perhaps, placed on the physical signs alone, which at first may be either absent or can be detected only by a trained ear, and too little importance is attached to the study of the history and the rational symptoms. In insidious cases lassitude, some loss of appetite, a little quickening of the pulse-rate, a temperature reaching occasionally 99.5° to 100° at irregular intervals, with or without slight loss of weight, are a group of symptoms which usually attracts little attention, but which should be regarded with suspicion. And if, in addition to these, morning pallor, disappearing towards evening, some cough, prolonged expiration, or even impairment of vesicular murmur, are noted, the patient should be closely watched, every effort made to obtain more positive evidence; and if it is not obtainable otherwise, the aid of laboratory methods in helping to clear up the diagnosis should not be neglected. If there is expectoration, and the presence of the bacillus cannot be detected by repeated and thorough examinations, a positive conclusion can often be reached within three weeks by inoculation of the expectoration in the guinea-pig. A careful examination with a good X-ray machine and the fluoroscope will often confirm the diagnosis by showing the diaphragm to be higher on the suspected side, or its excursion diminished on one or both sides, and in many cases a slight shadow can also be detected at the site of the suspected lesion.

If additional or more conclusive evidence is required, the tuberculin test should be applied. By a resort to this test a positive opinion one way or the other can often be reached; and if the initial dose does not exceed one milligramme, the constitutional disturbance caused by it is slight, and no injury to the patient has, in my experience, ever resulted from such a test in the cases in which it has been necessary to employ it. I usually inject one milligramme at bedtime, and as the reaction should appear in from eight to sixteen hours, a two-hourly record of the temperature, beginning early in the morning of the following day, will show if any fever is present and indicate its character. If

no effect is produced, I wait three days, and inject three milligrammes at bedtime, and, if the result is again negative, a last dose of five milligrammes after another interval of three days. It is rarely necessary or advisable to go beyond this. The value of the tuberculin test in shedding light upon obscure cases of suspected tuberculosis, whether pulmonary or surgical, has not yet been generally realized.

As soon as the diagnosis of tuberculosis is established, particularly if the bacillus has been demonstrated in the expectation, no matter how well the patient may appear, he should at once be told the grave nature of his malady, and an immediate removal from his surroundings should be urged, while it is explained to him that the best and possibly the only chance of restoration lies in prompt action and the adoption of thorough measures. Although obedience to this advice undoubtedly necessitates great sacrifices on the part of the patient, he will, if it is at all possible, rarely hesitate to make them, provided the gravity of the situation is plainly laid before him and the necessity for prompt action explained; and if this is not done, he will be called upon to make the same sacrifices later, and when they can prove of little or no avail.

The position physicians take who purposely deceive patients as to the nature of their malady by telling them the bleeding comes from the throat, or that they have influenza, malarial disease, or bronchitis, is difficult to understand, and does the patient a grave injustice.

It will be justly urged that in a great majority of cases among the poorer classes it is absolutely impossible for the patient to follow the advice given. This is greatly to be regretted; and while it in no way relieves the physician of the responsibility of making an early diagnosis, and advising prompt and radical measures to those who can afford to follow his advice, it is a strong plea for attempting to provide sanatoria for a greater number of these unfortunates, where they can find at a moderate cost the climatic and hygienic surroundings necessary for the treatment of their disease as soon as its presence is recognized.

The principal aim of the modern sanitarium treatment of tuberculosis, which can only be briefly outlined here, is to improve the patient's nutrition and increase his resistance to the disease by placing him under the most favorable environment obtainable. The main elements of such an environment are an invigorating climate, an open-air life, rest, coupled with the careful regulation of the daily habits, and an abundant supply of nutritious food, with the exhibition of such restoratives and tonic measures as may be indicated in each case. A discussion of the advantages of various climates will not be considered further than to call attention to the fact that for truly incipient cases the more tonic and colder climates seem indicated by the comparatively good condition of the patient; and this view is strengthened by a study

of the influence of cold on the weight of the patients at the Adirondack Sanitarium, the average gain in weight every year being greater during the autumn and winter months than in the spring and summer.

The invigorating influence of a life spent constantly out of doors for many months can hardly be overrated. To remain, in most cases, the greater part of the time quietly sitting, well wrapped up, out of doors in all weathers, is one of the main duties imposed upon every patient at the sanitarium, and, irksome as such a course would at first seem, it is, in a majority of cases, faithfully carried out by them after their timidity and prejudices as to its danger have been gradually overcome by the benefit derived in their own persons. This constant exposure to atmospheric influences in so severe a climate as that of the Adirondacks at all temperatures and in any weather, proves the best possible stimulant to the assimilative powers of the patient whose life has been almost entirely spent in close and overheated rooms, and has, in my experience, been free from danger when intelligently applied. Patients but rarely suffer from colds or intercurrent attacks of bronchitis, and only one case of lobar pneumonia has occurred at the sanitarium among the hundreds treated there during the last fourteen years.

Besides warm clothing in winter, protection from the wind is the only requisite for this treatment, and a good shelter is obtained by a single glass or wooden screen placed on the exposed side only, the usual glass-enclosed piazza being an abomination never allowed. The out-door method is applied to all patients, but the details of the treatment, and, above all, the amount of exercise allowed in carrying it out, are regulated by the activity of the patient's disease, his nutritive condition, and more especially his temperature record. Thus, the few infirm cases who may be suffering from progressive tuberculous processes or cheesy pneumonia, and running high temperatures, are carried out doors daily, and kept there in a recumbent position in bed or on a lounge the greater part of the day, while those who have less fever and are improving are allowed to sit up in steamer chairs on the veranda and to walk about the infirmary, but not to go over to their meals in the main building until their temperature record and improved condition warrant it, when they are returned to their cottages. In the class of cases which is represented by the inmates of the cottages, the temperature rarely goes above a hundred in the afternoon, or they are entirely apyretic. The former are ordered to remain quiet out of doors during the afternoon, when slight fever is apt to occur, and to walk to their meals in the main building, but not to go off the grounds; while the apyretic cases are generally allowed, so long as they live out of doors and obey rules, to go where they please and, while under daily observation, to take as much exercise as their condition seems to render permissible.

It is much better, however, always to err on the side of over-caution in prescribing active exercise to tuberculous patients, and I feel confident that many lives are constantly sacrificed to a deep-rooted and very general misconception which exists in the lay, and to a great extent to the professional mind as well, in regard to the advantages of active exercise in this disease. If there is any one rule that should be generally applied to the treatment of tuberculosis, it is, that when any degree of fever is present the course of the disease will be injuriously affected in direct proportion to the amount of active exercise the patient is allowed to take. Still further, I constantly see an apparently quiescent and arrested process fanned into renewed and often uncontrollable activity by one single over-exertion.

This position in regard to exercise may seem rather an ultra one, but it has been amply sustained by abundant and unfortunate experience in this direction. What is but moderate exercise for a man in health means over-exertion and exhaustion to the phthisical invalid. To see a man with a daily afternoon temperature of 101° to 102°, and a pulse above one hundred, trying to gain strength by rowing a boat, riding a bicycle, or attempting to climb a mountain, as he is often advised to do, and to note the baneful effect of this course on his disease, will prove more convincing than any form of argument. Absolute rest, so long as it is taken in the open air, is the best measure at our command to reduce the pyrexia of tuberculosis and to conserve the patient's energies, and should be persisted in for some time after the afternoon fever has ceased to be present, moderate exercise again being allowed only with caution.

At the sanitarium the utmost attention is given to the alimentation of the patient, and every attempt is made to induce him to take and digest as much nourishing food as possible, but the details of this part of the treatment cannot be entered into here.

Alcoholics are never prescribed in early cases as a part of the treatment.

Little stress is laid on the administration of drugs except when necessary to relieve symptoms, but cod-liver oil, the hypophosphites, and arsenic are very generally made use of. Creosote is prescribed in small doses only, and in cases where cough and profuse expectoration seem to indicate its administration, or where its tentative use has been shown that it improves rather than impairs the patient's appetite and digestion.

Tuberculin* treatment has been employed for the past seven

* Koch's original tuberculin was used at the sanitarium for a year after the announcement by this investigator of this new method of treatment. From that time, however, all the tuberculin has been produced at the Saranac Laboratory, and has been modified according to the indications which the latest researches on this subject seemed to call for. For several years a tuberculin made like Hunter's modification B, was principally in use. The general plan of separating the albumoses from the culture fluid laid down by Hunter was adopted, except that no heat was used at any time in the process.

Before making an extensive trial of Koch's new TR tuberculin, it was thought best to study this substance in the laboratory. The researches made there by Dr. E. R.

years with the utmost caution, and in selected cases only, in order that some evidence as to its specific influence when given under the most favorable conditions of environment might be obtained. Its use has been found inadmissible in the active types of the disease, and its administration in large enough doses to produce repeatedly marked reactions inadvisable and even injurious. In the apyretic types of the disease, when the patient's nutrition is good, if given in very small and very gradually increasing doses, so as never to produce any marked rise of temperature, its use has been found free from danger, and the proportion of recoveries in the patients treated has been encouraging. In such cases, if the treatment be extended over a period of from six to eight months, the dose may be gradually raised from the equivalent of a tenth of a milligramme of Koch's tuberculin to so large an amount as a hundred milligrammes without causing any marked reaction. As the cases, however, in which this treatment seems permissible are likely to do well under the ordinary climatic and open-air treatment alone, little evidence as to its curative value can be claimed from their recovery. The injections, nevertheless, seem to have had a favorable influence in preventing the natural tendency of this disease toward relapse, which occurs in many who recover under climatic and hygienic methods alone.

An attempt has been made to trace as many as possible of the patients treated by this method who have been discharged as cured in the past seven years, in order to determine whether or not tuberculin treatment has any influence in preventing relapse. The result was as follows:

Not traced	8
Remained well.....	36
Relapsed (living)	4
Relapsed (died)	3
Died of insanity	1
Died of alcoholism.....	1
	53

Unfortunately, it is impossible to determine positively whether this apparent immunity to relapse is the direct result of the tuberculin treatment, or whether the tolerance to large doses of tuberculin shown by these patients indicates that from the first their tuberculosis was of a subacute or benign type.

The exact results obtained by the combined climatic and sanitarium treatment are difficult to express in figures, because

Baldwin and myself showed that samples of TR, as it was first put on the market, contained living tubercle bacilli, and for this reason the substance as then produced was considered as unsuitable for the treatment of human tuberculosis. Dr. Baldwin has also recently shown that, although the directions accompanying the new bottles of the new TR tuberculin state that it contains ten milligrammes of solid substance, if the water and glycerin be evaporated only about four milligrammes of solid substance remain.

During the past year Hahn's tuberculo-plasmine made after the method of Buchner and Hahn, of crushing the bacteria with excessive hydraulic pressure, has been used in a limited number of cases.

these results are greatly influenced by the class of cases accepted for treatment, and the classification of these cases is necessarily purely arbitrary. Many cases, no doubt, would be classified by one physician as incipient, by another as advanced, according to the views held by each as to the disease and the personal bent of the individual. In addition, the term *cure* can also be used only in a relative sense. Of late the results obtained have been better than formerly, and this is due, no doubt, not only to the improvements in methods and plant, but to the fact that more really favorable and early cases are available than formerly.

In making out the yearly reports of the institution I have adopted and printed in each report the following classification, imperfect as I feel it to be, as the best I could devise to express the class of patients treated and the results obtained. An idea of the best results thus far attained can perhaps be gained by a glance at the following table copied from the last two annual reports, of 1897 and 1898, provided the figures are considered together with the classification adopted. Patients who have remained less than three months are put into a separate class, as little can be accomplished in the way of permanent results by so short a period of treatment :

203 PATIENTS WHO REMAINED AN AVERAGE OF 9 MONTHS.

Condition of patients when admitted.	Apparently cured.	Disease arrested.	Improved.	Unimproved or failed.	Died.
75 Incipient cases	55	16	2	2	0
84 Advanced cases	15	38	19	11	1
44 Far advanced cases..	0	7	19	13	5
203 Total	70	61	40	26	6

DEFINITION OF TERMS EMPLOYED.

(1) *Incipient*.—Cases in which both the physical and rational signs point to but slight local and constitutional involvement.

(2) *Advanced*.—Cases in which the localized disease process is either extensive or in an advanced stage, or where, with a comparatively slight amount of pulmonary involvement, the rational signs point to grave constitutional impairment or to some complication.

(3) *Far advanced*.—Cases in which both the rational and physical signs warrant the term.

(4) *Apparently cured*.—Cases in which the rational signs of phthisis and the bacilli in the expectoration have been absent for at least three months, or which have no expectoration at all, any abnormal physical signs remaining being interpreted as indicative of a healed lesion.

(5) *Arrested*.—Cases in which cough, expectoration and bacilli are still present, but in which all constitutional disturbance has disappeared for several months, the physical signs being interpreted as indicative of a retrogressive or arrested process.

It will be seen at a glance that of the forty-four patients classified as far advanced not a single one recovered, while of the seventy-five who represent the very earliest stage at which the disease can be detected, fifty-five, or 73.5 per cent., were apparently cured; and the importance of making an early diagnosis, and of the immediate application of radical measures is strongly emphasized by this experience. No doubt some of the apparently cured patients suffer more or less severe relapses, but the majority do not.

The education which the patients receive at the sanitarium, as to the nature of their disease and the methods to be relied upon in combating it, is of the utmost value to them in enabling them to care for their health and avoid relapses after they have left the institution.

CONCLUSION.

From an experience gained during many years in the practical application of sanitarium methods in the treatment of pulmonary tuberculosis, the following conclusions have been reached:

Tuberculosis, if detected in its earlier stages, is curable in a large proportion of cases.

It is of vital importance, therefore, that the diagnosis be made early.

The best results in treating incipient tuberculosis are obtainable by the open-air treatment in special sanitarium situated in good climates.

The best plan of construction for such sanitarium is the cottage plan or some of its modifications.—*Practitioner*, (English).

A. MCP.

THE SERUM TREATMENT OF DIPHTHERIA IN THE NEW YORK FOUNDLING HOSPITAL DURING 1898.*

BY W. P. NORTHRUP, M.D., OF NEW YORK.

DURING 1898, 103 patients with diphtheria were treated with anti-toxin at the New York Foundling Hospital, with 13 deaths, a mortality of 12½ per cent. The diagnosis was confirmed by bacteriologic cultivation in pharyngeal cases. Laryngeal cases to the number of 12 have been included, in which on one cultivation the bacteriologic report was negative. It is stated by Health Board experts that frequently such cultures taken from the pharynx are negative, while at the same time the lesion has been proved to be

* Read before the New York Academy of Medicine, February 16th, 1899.

laryngeal diphtheria. Two of these patients required intubation, but all recovered. Experience at the Foundling Hospital leads the writer to believe that these cases may fairly be considered diphtheritic. Rejecting these twelve cases altogether leaves a mortality of 14 per cent., which figure we may consider very satisfactory.

	Cases.	Deaths.	Per cent.
Pharyngeal.....	67	4	.06
Laryngeal.....	36	9	.25
Total.....	103	13	.12½

Statistics of immunity are not easily compiled. The strongest statement that can be made from the Foundling Hospital is that there have been so few cases as 103 (most of these patients even being brought in from the out-patient department) and that we have within two years (see *Medical News*, December 25th, 1897), passed through an epidemic of measles without having a single fatal complication of diphtheria.

The antitoxin used in recent years has been that made by the Health Department of the City of New York. There have been no antitoxin joints, no pains, and transient rashes in (estimated) only one-fourth to one-third of the cases. These have been of so little moment as not to be recorded in the histories. As an immunizing agent it has attained the highest ideal of therapy; it has preserved most lives, and preserved them intact.

In many ways the Foundling Hospital is a favorable place in which to test antitoxin. Greater New York thrusts into our care a large proportion of poorly developed new-born infants. Five of the thirteen fatal cases occurred in children under one year of age, and ten in those under two years; five patients that died were under one year of age; five were between one and two years, and three were between two and three years.

Finally, I submit that 12½ per cent. fatality in infant foundlings is an extremely good result; that in immunizing, antitoxin has attained even higher, almost ideal results.—*Medical News*.

A. MCP.

The Medical Profession of Chicago.—A curious feature of Chicago (medical) life is the willingness of the doctors to impart their knowledge to others. According to the catalogues issued in 1898, there are in that city 572 men who hold full "professorships" in colleges of acknowledged good standing—not to mention those in ill repute; 328 who are "instructors, assistant professors and demonstrators"; and 96 other than these who are clinical workers in college dispensaries! A total of 996 engaged in active college work! There can be no question that nowhere else on this globe can a showing one-fourth as great be made. Truly Chicago is to be the great "medical centre" of the world.—*Amer. Jour. of Surg. and Gynec.*

Surgery.

IN CHARGE OF . . .

BRUCE L. RIORDAN, M.D., C.M.,
AND F. N. G. STARR, M.B.

OPERATION FOR CANCER OF THE BREAST.

WATSON CHEYNE (*Lancet*, March 18th, 1899) makes a further statement as to results obtained by operation for cancer of the breast. At the time of his publication of the last series there were 21 cases in which 3 years or more had elapsed since operation. In 9 of these recurrence had taken place, while 12 (57 per cent.) had remained well for over 3 years. Of the 12, one died of bronchitis; of the remaining 11, nine are still alive and well more than 6 years after operation, one having been lost track of, and the other is reported to have died of hemorrhage from a cancer of the intestine.

In his other series in which the 3 years had not elapsed, there were 40 cases; of these at that time 10 had shown signs of fresh disease. Of the remaining 30, one had died of the operation, two had been lost sight of, and 27 had had no recurrence. Of these 27 at the present writing 18 are still alive and well, and one died without recurrence. "In other words, of the 37 who lived after operation and the fate of whom can be traced, 19 or over 50 per cent. remained free from recurrence, 16 certainly had recurrence. . . This gives a total in the 61 cases of 30 patients who remained free from recurrence, 29 of these having passed the three-year limit, one died from operation, and three having been lost sight of. The results therefore in cases where they are ascertainable, are about 51 per cent. of successes—*i.e.*, of patients remaining alive and well for over three years."

Up to the end of 1897 he had added 38 fresh cases to his series in which from one to three years have elapsed since operation. Of these, "26 patients remained well without recurrence; one refuses to say how she is, but appears well; in one the result is unknown; one died suddenly about a fortnight after operation, seven died of recurrence; one (in whom there had been recurrence) has probably died; and one (in whom there had been a slight recurrence) has been operated upon and appears well. The total is 99 cases in which from one to nine years have elapsed since the operation, and of these 56 certainly have as yet had no recurrence."

As to methods, he condemns the preliminary exploratory incision, and lays down the rule that "in the case of an exploratory operation, the suspected swelling should be excised along with an area of apparently healthy tissue around, and it should only be cut into

after its removal from the body and from the vicinity of the operation. He insists upon the "free removal of skin," notwithstanding the fact that there may be subsequent difficulty in closing the wound. The idea is to remove all tissue in which there is a possibility of infection. The entire breast and all its lobules must be excised. As to the fascia, he removes all of the pectoral fascia, together with a superficial layer of the muscle, so as to insure the removal of the fascia and the lymphatic vessels. The fascia over the pectoralis minor should also be removed, including the costo-coracoid membrane. Halstead removes both muscles as well, but Watson Cheyne's results are just as good, hence the removal of the entire muscle hardly seems necessary. The glands and lymphatic vessels should be removed well up into the axilla. This may be done when the lower part of the major muscle and the overlying breast have been detached, and turned forward; the fascia is dissected off the serratus magnus along with its superficial fibres, and then separated from the latissimus dorsi, and thus the whole of the fat and glands in the lower part of the axilla are raised in one mass up to the level of the vessels. After the front of the axillary vein has been well cleared, the vessels and nerves are lifted up and the glands and fat which run up toward the posterior triangle of the neck, are cleared out. As to the after treatment, instead of fixing the arm to the side, he fixes the arm at right angles to the chest by means of a spinal splint. By keeping the arm out from the side, he thinks a good deal of the contraction which usually follows these extensive operations, is avoided. He concludes his most interesting paper as follows: "Taking the results which I have given in this paper along with the results obtained by Halsted, Butlin, and a variety of other operators, I think that we are justified in drawing the following conclusions: 1. Taking cases of all kinds together, not merely selecting favorable cases for operation but operating on all cases in which operation is possible with the exceptions which I have already mentioned, we may, I think, reckon that about 50 per cent. of the patients will remain free from recurrence if the operations are carried out on the lines laid down by Heidenhain and Stiles. 2. That even in the cases which do recur recurrence is considerably delayed and the patient enjoys a considerable interval of good health. 3. That the repeated operations which take place after the old operation are now very rare, recurrences when they do appear being usually in inoperable situations. 4. It will be evident from my results that the chance of recurrence is extremely slight after these extensive operations in patients who have remained well for from one to two years, and after three years there is only one example in my list of fresh cancer, and in that case there is no evidence that that was one of recurrence of the original disease rather than a fresh development. 5. I may add my firm conviction that *the patient's chance lies in the first operation*. If this fails, either from imperfect removal of the disease or on account of the extent

of the disease in the first instance, further operation, however extensive, is seldom successful. This is my experience. I see a good many cases which have been operated upon elsewhere and in which recurrence has taken place, especially cases in which the old operation has been performed, and in the few in which I have been tempted to give the patients another chance by an extensive operation the results have been almost uniformly disappointing. Where a cancer is quite small patients and practitioners are very apt to be content in the first instance with a small operation, thinking that if recurrence takes place an extensive removal can be performed afterwards. This is, I am satisfied, an utter fallacy, and the performance of a partial operation in the first instance takes away the patient's best, and often her only real, chance of getting rid of the disease."

F. N. G. S.

Furuncle.—*Treatment*: Furuncles are always caused by infection from the surface, usually along the hair-follicles. In order to prevent general furunculosis, the surface of the boil should be washed with a one to five hundred solution of mercuric chloride, the washing being extended for some distance around the primary abscess. The application should be made at least twice daily, and, after rupture or incision, the abscess-cavity should be carefully irrigated with a weak mercuric-chloride solution.—H. H. STONER, *Medical News*, January 14th, 1899.

The Invention of Spectacles.—Who first invented spectacles? These aids to vision appear to have come into use about the fourteenth century. The earliest reference to them is in the work of Bernard Gordon, Professor at Montpellier, who speaks of a collyrium devised by him which allowed a person to read without spectacles. In 1360 Guy de Chauliac in his treatise on surgery refers to the use of lenses. The invention of spectacles is sometimes attributed to Roger Bacon, who died in 1294. Further research, however, has shown that in 1285 Savino degli Armati, a Florentine, worked glass into the form of a lens as a help to vision. For him, therefore, may justly be claimed the honor of having invented spectacles. He died at Florence in 1317, and was buried in the Church of Santa Maria Maggiore. On his stone is the following inscription:

QUI GIACE
SAVINO DEGLI ARMATI
DI FIRENZE
INVENTORE DEGLI OCCHIALI
DIO GLI PERDONI LE PECCATA
ANNO D MCCCXVII.

(Here lies Savino degli Armati, of Florence, inventor of spectacles. May God forgive him his sins! A.D. 1317.)—*British Medical Journal*.

Oral Surgery.

IN CHARGE OF
E. H. ADAMS, M.D., D.D.S.

CALCIC WASTE IN PREGNANCY.

At the union meeting of the Maryland State Dental Association, Washington City Dental Society, and Virginia State Dental Association, Dr. W. A. Montell, Baltimore, read the following paper on the above subject:

Every dental practitioner has had brought to his attention the old adage, "For every child a tooth," and while attempting during his professional career to combat the fallacy of such a necessity, has been forced to admit that during the period mentioned there has usually been a loss of the calcic material of the mother, which has been more or less evinced by the destruction of dental tissues and the impairment of fillings which we have viewed with pride.

In 1887 the writer was led to make some investigation looking to amelioration of these conditions, and submits the results, asking the members to draw their own deductions from the facts submitted. Mrs. T., mother of two children, was under his care for dental services, and stated that she desired nothing permanent done, as in a few months she would be confined and would have to lose one or more teeth before the fulfilment of her time.

The writer combated the idea, and prescribed for her a table-spoonful of lime-water three times a day internally, and an alkaline wash of sodium bicarbonate and water twice a day. The child was safely born, and, like the others, a boy, but, unlike the others, whose temporary teeth were apparently frail, the last one, who has been with the others frequently under the writer's care, had dental organs of a character far superior to the first two, and the mother lost neither a tooth nor filling during the period of gestation.

Mrs. L., whose husband informed the writer that his wife was *eniente*, was given the same treatment, with similar result. She was the mother of four children previously, all of whom suffered from caries of their deciduous teeth, while the fifth was observed by the writer within the last year, and such teeth as were still retained showed no symptoms of caries, while those which had been removed by the usual physiological process were perfect except the usual absorption of the roots.

Mrs. A., to whose husband the writer suggested the treatment, used syrup of hypophosphites internally, and lime-water as a wash during pregnancy. She is the mother of two children, and shows the loss of dental structure herself, while the children, now four and six years old, have perfect teeth. There are nine more cases

of similar results which the writer has carefully recorded, but the data obtained therefrom are not sufficiently complete to give in this paper.

While wishing to allow his professional brethren to draw their own conclusions, the writer wishes to record a few of his own views as deduced from the cases cited, viz., that undoubtedly there exists a good and sufficient ground to believe that during pregnancy there is an unusual strain upon the system of the mother for the construction and maintenance of the fetus, whose supply of nourishment is derived solely from the maternal source. That during this period, the osseous structure of the mother being deprived of its usual pabulum, which is diverted for the purpose of the fetus, the secretions of the body and the condition of the blood are less alkaline than usual, and thus produces the chemical solution of the teeth; for the writer observed that the ravages of the structure of the teeth at this time appear to differ somewhat from the usual phenomena of caries, showing the effects of simple decalcification by acids on extracted teeth. And if the secretions of the various organs are, as we all well know, decidedly acid during this period, there must be a heavy strain and demand upon the system for such calcic constituents as are required during a normal condition; and the results of the writer's observation lead him to believe that we can supply this calcic material in a readily assimilable form through the use of lime-water and kindred preparations, not only preventing the usual loss of dental structure on the part of the mother and replenishing the strain upon her resources, but we can by this method give that foundation for the future dental organs of the fetus so much to be desired.

DISCUSSION.

Dr. C. Lenox Curtis, New York, said that the paper was of interest to all dentists because they were responsible for the condition of the dental organs of their patients; but they are not often in as good a position to give advice as to precautions to be taken as physicians are. The speaker emphasized the necessity of supplying lime to the system, but treatment should go beyond this and build up the whole system and create a healthy state, in which there would be a natural appetite for such foods as contain an abundance of lime-salts. If a supply of lime can be gotten from regular foods, it is better than to administer it as a medicine.

E. H. A.

THE RELATION OF DISEASES OF THE TEETH TO THE CHRONIC SWELLING OF THE LYMPHATIC GLANDS.

AMONG three thousand one hundred and sixty-one children with swellings of the glands were two thousand three hundred and thirty-four, or seventy-eight and eight-tenths per cent. who had bad teeth of the third or fourth degree in the lower jaw. With one thousand six hundred and forty-six, or seventy per cent. of

these children, the bad teeth, with regard to their position, intensity of illness, etc., corresponded exactly to the position and the degree of the swelling of the glands; with six hundred and eighty-eight, or twenty-nine and five-tenths per cent. the bad teeth and glands did not agree, or partly only. The third table proves that more than half of all the teeth made responsible for any swelling of the glands, had still a living pulp. The author states the summary of the result of his work in the following sentences:

1. Bad teeth, carious ones especially, play an important part as etiological factors in swellings of those lymphatic glands in the regions of which the teeth are situated.

2. As long as the caries is limited to the enamel and dentine of the tooth, without influencing the pulp, there is no swelling of the gland to be feared.

3. If the pulp is deprived of its epithelial protection, which consists of the enamel and dentine of the tooth, there is the possibility of a swelling of the lymphatic gland through the medium of infectious or otherwise injurious matter.

4. Not only dead teeth with open cavity and root canals must be considered the entrance way for infectious matter, but also the teeth, the pulp of which is still alive, if exposed to the injurious influence of outer contact.

5. There are no lymphatic capillaries and no lymphatic vessels existing in the pulp, and yet the pulp possesses the capability of absorption.—DR. H. KORNER HALE, in *Items of Interest*.

E. H. A.

A CASE OF ALVEOLAR HEMORRHAGE CAUSING DEATH.

REPORTED BY GEORGE RANDORF, BERLIN, GERMANY.

MR. E., who suffers from hemophilia, after extraction of a molar, suffered from bleeding of the gum and the alveolus of the upper jaw. Having applied various well-known remedies without success, he went on the second day to his doctor, who succeeded in partly stopping the bleeding.

The mouth, after it had been thoroughly cleansed, was found in the following condition at two o'clock on the same day: The mucous membrane had become sore through chloride of iron and other means which the patient had applied himself in a rather concentrated solution, and was strongly inclined to bleed.

By means of the electric cautery the doctor succeeded in stopping the bleeding, and sent the patient away, recommending him to use all possible measures of precaution.

In about an hour the packing was again soaked with blood. Unfortunately the alveolus, or rather the gum behind the second molar, began to bleed also. Whenever the packing or its substitute touched the bleeding spot, the bleeding became more profuse in consequence of the inclination of vomiting which overcame the

patient. The doctor tried to stop the bleeding by applying hot water and steam, iron chloride packing, turpentine oil, antipyrin, ergotin and secale, bags of ice, but without result. A vulcanized rubber plug could not be made, because no exact cast could be taken. Nor could two other doctors consulted master the bleeding. A solution of pure salt was three times administered to the patient as a substitute for the loss of blood. On the eighth day the patient died in consequence of the bleeding.

It is noteworthy that the same patient some time before had himself pulled out a loose premolar and that the bleeding ceased spontaneously after two days.—*Items of Interest.* E. H. A.

Appointment of Dental Surgeons in the Army and Navy of the United States.—Mr. Hull, of the National House of Representatives, has brought in a bill for the reorganization of the army of the United States, and other purposes. Section 11 provides for the appointment of "one hundred dentists."—*Dental Cosmos.*

Does License to Practise Medicine Permit the Practice of Oral Surgery?—A curious case for medico-legal decision has arisen in the State of Rhode Island, where registration for medical practice is granted upon application of the State Board of Health, by graduates of recognized medical colleges, while dentists are required by a recent enactment to pass an examination before the State Board of Registration in dentistry. A graduate of dental surgery, and in medicine, after being registered by the State Board of Health and securing his license, engaged in the practice of medicine, including dental and oral surgery. He was forthwith arrested for infraction of the law requiring examination and license for the practice of dental surgery, and the case now awaits judicial decision.—*Dominion Dental Journal.*

Caries of the Teeth and Diseases of the Stomach.—Aaron (*Charleston Medical Journal*, October, 1898) states that caries is produced by the acid fermentation set up by micro-organisms. Over twenty-two kinds of germs, concerned in caries, have been isolated. The empty stomach always contains germs, and, contrary to the general belief, the HCl of the gastric juice, while inhibiting up to a certain degree the process of fermentation, does not completely destroy the germs in the stomach. When caries exists, some of the germs from the teeth may become incorporated with the food, enter the stomach and there develop, giving rise to various disturbances. The multiplication of the micro-organisms and their products induce a state of hyperemia, and then a hypertrophic condition of the mucous membrane of the stomach, which becomes covered with a heavy, viscid, ropy, tenacious mucus. The food is not digested and acts as an irritant. The proteolytic process yields to fermentation. It must be remembered that not all micro-organisms that excite inflammation are pyogenic. Germs which usually produce pus in interstitial tissue, developing on mucous membranes, only produce a chronic inflammation. E. H. A.

Pharmacology and

IN CHARGE OF
A. J. HARRINGTON, M.D., M.R.C.S.(Eng.)

Therapeutics.

PRESERVATIVES.

Alcohol.—Most common preservative and solvent, it enters into the composition of nearly all our official solutions. The germination of most of the micro-organisms occurring in aqueous solutions of vegetable or animal substances is inhibited by the presence of 20 per cent. by volume of absolute alcohol. It is in no way germicidal, as on evaporation the anesthetized germs readily take up life and propagate.

Glycerine, a good solvent, has a curious preservative action over some inorganic substances by preventing oxidation.

Salicylic Acid.—The well-known uses antiseptically of this acid for surgical purposes, although prohibited from being used for preserving wines in France, have rendered it serviceable in preserving the official solution of hydrochlorate of cocaine, which contains $1\frac{1}{2}$ per mille of the acid, with 10 per cent. of the cocaine salt. I find that this solution, even if diluted with four times its volume of water, still keeps free from fungoid growths. The use of this acid might be objected to in the solution, because salicylic acid forms with cocaine an indefinite compound rather than a salt, the so-called salicylate of cocaine; but it does not appear to throw the hydrochloric acid out of combination, and has proved very serviceable in preserving the solution of this cocaine salt, which has a great tendency to develop fungoid growths. The salicylic compound appears to be allied to the benzoic compound, benzoyl-ecgonine. It forms a pasty mass which has not, that I am aware of, been studied. If any defence were needed for using a preservative, perhaps this official solution of cocaine is a typical case. The use of this solution of salicylate acid $1\frac{1}{2}$ per mille, which is nearly saturated, as a vehicle, might be extended to other solutions—for example, the official solution of sulphate of atropine—but I have not found this solution, if made with a well crystallized salt, prone to grow fungi. Its use, however, cannot be extended to the hypodermic injection of morphine; if a solution of tartrate of morphine 1 in 12, or even 1 in 20, be prepared in it, a crystallized salicylate of morphine separates; $16\frac{1}{2}$ tartrate keeps well alone.

Of the salts of morphine suitable for hypodermic injection, the tartrate seems to be now favored; the acetate solution, prepared by dissolving pure morphine in just enough acetic acid, has

till lately been mostly used, but it has the objection of possessing a tendency to decomposition and becoming muddy and dark-colored. Still I have two solutions here over eighteen years old, and no extra sterilizing precautions were taken when made: they are well preserved and are perfectly transparent, although they have slightly changed color. One is of the strength of one grain in six minims, which I advocated in a paper in 1870, the other is one grain in twelve minims. A small dose is generally preferred for hypodermic injection, but the strength of one grain in six minims is considered now to be dangerously strong in the hands of an unskilled operator. The more nearly saturated, however, the aqueous solution of any salt or crystalline principle is, the better it will keep; in fact, it was a curious argument of an advocate for spontaneous generation that there was a debatable land between that of crystallization and the germination of organisms in these solutions—that is, between the growth of crystals and of organisms; this applies widely in pharmacy, as we well know, in keeping syrups, for example. A nearly perfect syrup consists of two parts of sugar and one of distilled water; kept at a uniform temperate heat, this neither crystallizes nor grows fungi; and our solid medicinal extracts are preserved if they contain no excess of moisture.

Further, these remarks especially apply to the official solutions of acetate and citrate of ammonium, which are much better kept in a concentrated form.

The salicylic acid solution cannot either be used for preparing the hypodermic injection of apomorphine; a one-per-cent. solution of the hydrochlorate of apomorphine prepared in it gives a quantity of a crystalline deposit.

Hydrochlorate of apomorphine in aqueous solution rapidly develops a green color; this has been attributed to the influence of ammonia in the atmosphere, but although a drop of solution of ammonia does develop the green color immediately, it is apparently not due to this alone. This salt is now prepared much purer than formerly, and it is also not so soluble. The official strength of the hypodermic injection, 1 grain in 50 minims, *i.e.*, 1 in 45.5 parts, of camphor-water is not held in solution at 60° F. Dott gives the solubility in water as 1 in 50.89, Squire as 1 in 56 to 60. I find 1 part in 60 of boiled and cooled distilled water dissolves, but turns green within a few hours; if acidulated with a trace of hydrochloric acid, say, an equal weight of the official diluted hydrochloric acid, the color is preserved, but it is rendered less soluble. More than a one-per-cent. solution, if acidulated, is not certain to keep free from crystals at the variable temperature to which it may be exposed, and less than the quantity of acid I have named does not keep it free from color.

Mercuric Chloride.—A simple solution in distilled water or even in spring waters containing supercarbonate of lime in solution, is more stable than it is with a preservative added, especially one of such a nature as chloride of ammonium in the official solution. This, as I showed so long ago as 1870, instead of being a preserva-

tive, forms a double salt in solution (*sal alembroth plus* an excess of chloride of ammonium), and the solution, if prepared with common water in place of distilled water, or even if prepared with distilled water and diluted, throws down a quantity of one of the white precipitates of mercury. To such an extent is this the case that I found in preparing a pint of the official solution with New River in place of distilled water, that 2.7 grains of this precipitate was deposited, thus about one-fourth of the mercurial salt was rendered insoluble in preparing the solution, and more deposited on further dilution with the water. In fact, a time arrived when there was scarcely a trace of mercury salt in solution, and as this preparation is most largely used in hospitals where common water is always used to dilute the medicines, it leads to very discrepant results therapeutically. It has also been suggested that chloride of sodium should replace chloride of ammonium in the official solution, as this salt is largely used in making the sublimate tablets for the convenience of surgeon's use, but I have found that although sodium chloride helps these tablets to disintegrate readily it has no advantage—in fact it is detrimental to the keeping properties of the solution. I have here two specimens prepared in November, 1895, with water from the Brighton constant supply, which is a very calcareous water; one is a simple solution of the perchloride, and the other has an equal weight of pure chloride of sodium added. The latter has deposited much more than the former, in which there is hardly a trace of deposit. This strongly illustrates the undesirability of tampering with solutions in order to make them, as we consider, more stable; in fact, with few exceptions no preservative should be added to a pharmacopeial preparation unless the label indicates boldly that it is there.

While on the subject of mercuric salts, I should like to illustrate the importance of having our lime-water of full strength, and well preserved. In making the yellow mercurial lotion of the B.P., which has eighteen grains of sublimate to ten ounces of "lime-water," if the lime-water be only three-fourths, or from keeping so low as one-half, the pharmacopeial strength, a brick-red preparation—an oxychloride—is produced, rather than the yellow mercuric oxide.

Sugar.—A useful preservative from oxidation of the ferrous preparations, such as the saccharated carbonate of iron, mixture of iron, Blaud's pill and iodide of iron pill, it also preserves lime in solution, as in the well-known *calcis saccharate* of a strength of about sixteen times that of the official lime-water. If a pure marble lime is used as much as 8.16 grains in a fluid ounce is found.

Boric Acid.—Of the preservatives suggested for keeping apomorphine injection, boric acid has been mentioned, but this I find, in a solution containing 2 per cent. of each—boric acid and hydrochlorate of apomorphine—forms an opaque white jelly, and even with 1 per cent. of each a curious translucent jelly is formed, quite unsuitable for hypodermic injection. Boric acid has been recommended and is used largely for preserving solutions for hypodermic injection, but as a solution of it, 1 in 30 parts of water,

which is nearly saturated, will itself develop some peculiar fungi, I can see little advantage in employing such a preservative pharmaceutically. Mr. Lee has mounted a specimen of a *torula* which has been grown in a saturated solution of boric acid in distilled water.

Chloroform.—The addition of chloroform to vegetable infusions and other aqueous preparations of vegetable and animal substances was recommended by Mr. J. B. Barnes in the proportion of from one-eighth to one-half per cent. by volume. The addition of chloroform as an inhibitory in suspended pharmaceutical operations is of great service, and it has the advantage that by gently warming the solution for a short time it can be easily dissipated, but it has also the disadvantage that the chloroform evaporates too easily for prolonged preservation; yet I have tried the experiment of preserving fruit (damsons) in stoppered bottles, adding about one-three-hundredth part of their weight of chloroform to them. The preservation was complete, but the flavor of the chloroform was not dissipated by even baking the fruit in piés.

Heat and Cold.—These are the most important preservatives we possess, especially as regards our food supplies, commercially keeping in a fresh condition meats and many articles of our daily food.—WM. MURRELL, *Pharmaceutical Journal*. A. J. H.

ULCER OF THE LEG.

AMONG the numerous modes of treatment which are employed, says a writer in the *Gazette Hebdomadaire de Médecine et de Chirurgie*, two are worthy of consideration, "cauterization with tincture of aloes, recommended by M. V. Dehaine, and Unna's dressing, recommended by M. R. AuBouin."

The advantages to be derived from tincture of aloes, which is suitable in the treatment of deep, rebellious, and anfractuous ulcers with profuse suppuration, are that it hastens the formation of granulations and favors the formation of epidermis, and that, in consequence of its rapidly drying action, it is not necessary to renew the dressing frequently. The only inconvenience is a sharp, although temporary, pain caused by the application of the tincture. The treatment is contraindicated in very extensive circular ulcers, which are amenable only to surgical intervention. The mode of treatment is as follows:

1. Careful cleansing of the ulcerated surface with an antiseptic lotion.

2. Drying the ulcer with absorbent cotton.

3. Painting it with the tincture of aloes according to the following directions: If the ulcer is superficial, it is sufficient to pass the brush once over the affected spot; if it is deep, a second layer may be applied after the first has dried. These applications must be allowed to dry completely, so that the second dressing will not adhere to or detach the crust formed by the first.

4. Over the painted surface a piece of impermeable linen is placed, which insures contact with the alcoholic preparation and prevents the dressing from adhering to the crust.

5. The leg is wrapped entirely in aseptic gauze and cotton.

Very frequently, however, aside from the ulcer itself, the skin of the varicose limb is diseased; it easily becomes excoriated by the liquids secreted by the ulcer, it is eczematous, and it presents various troubles of nutrition. It is in these conditions that, apart from topical applications, such as aloes, Unna's dressing is indicated. In this way the skin is treated at the same time as the ulcer, and after cicatrization is obtained ulceration of the neighboring parts, which is usually seen with other modes of treatment, is rarely observed. The procedure is as follows:

After prolonged cleansing of the ulcer with hot water and soap, brushing with a rough piece of linen which has been rendered aseptic, and disinfection with an antiseptic liquid, the entire region invaded by the varicose eczema is covered with a thick layer of Lassar's paste, of which the following is the formula:

R Starch,
Zinc oxide..... āā gr. 300.
Vaseline gr. 600.

M.

The ulcer is dusted with iodoform, aristol, or dermatol and then covered with a layer of cotton. The entire leg is then painted with Unna's paste, which is melted and applied with a brush. The parts that are covered with Lassar's paste must also be coated with a layer of Unna's paste, which is composed of the following:

R Aq.,
Glycerine..... āā ℥ 2.5.
Gelatin,
Zinc oxide..... āā gr. 300.

M.

The leg is then bandaged with tarlatan which has been starched and soaked in hot water, and the bandage is drawn somewhat tight in order to make a moderate compression. Over this a dry linen bandage is placed. At the end of from two to six days the secretion will pass through the dressing, which is then changed. A hot bath is sufficient to soften Unna's paste, after which a second dressing is applied.

Under the influence of this treatment the secretion dries up and the bandages are renewed only once in two weeks; the appearance of pus is the only indication for the renewal of the dressing.

When surgical treatment cannot be employed, the tincture of aloes is preferable as a topical application, especially in deep ulcers of medium size. At the same time, if the skin is eczematous, Unna's dressing is indicated, for it is a valuable adjuvant to the employment of topical agents of any kind, and it has the advantage of preventing a recurrence of the affection—*N. Y. Med. Jour.*

Pathology.

IN CHARGE OF . . .

W. H. PEPLER, M.D.

THE PATHOLOGY OF GAS POISONING ILLUSTRATED BY
FIVE RECENT CASES.

BY J. LORRAIN SMITH, M.A., M.D.,
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THE following cases of poisoning by lighting gas occurred in Belfast in October, 1898, and January, 1899. I was asked by the coroner to examine the bodies, and in each case an exact determination was made of the percentage to which the hemoglobin of the blood was saturated with carbohic oxide, the details of which are here recorded. As far as I am aware, no similar determinations have hitherto been made in cases of gas poisoning.

The lighting gas supplied in Belfast is a mixture of coal gas with about 40 per cent. of carburetted water gas. This mixture contains about 16 per cent. of carbonic oxide, whereas the coal gas contains only about 6 per cent. Water gas is now being extensively used in this country, and the serious extent to which its admixture with coal gas increases the risk to the public has just been reported on by a Home Office Department Committee.

On October 4th, 1898, S. H., a young woman, went to bed at 8.30 p.m., and was found dead at 6 next morning. The room occupied was of about 330 cubic feet capacity. It had no chimney. The ventilation by door and window was relatively small, as they were close fitting. The gas was found turned half on when the deceased was discovered.

Post-mortem Appearances.—A large amount of froth was observed about the mouth and nose. The lips were pink in tint. There was a distinct pink color in the skin of the dependent parts. The left hand was extended; the right hand was flexed. *Post-mortem rigidity* was well marked.

Internal Appearances.—No pleuritic or pericardial fluid. Right heart collapsed; left heart moderately rigid. The cavities of the heart were nearly empty of blood. A few drops of blood were allowed to fall into a vessel of water, and at once showed the characteristic pink tint of carboxyhemoglobin. The lungs were slightly congested, but there was no edema. The larynx and trachea were congested, and had a very pink appearance on the mucous surface. Some frothy mucus was in the bronchi. Emphysema very slight. The stomach contained half-digested food

The intestines had a diffused scarlet tint. The kidneys and liver were congested, but otherwise normal. The meninges of the brain were markedly congested. There was complete absence of any lesion to which death could be ascribed except the saturation of the blood with carbonic oxide.

Samples of the blood were taken in sealed tubes, and examined by the carmine method as soon as I had reached the laboratory. It was found to be 83 per cent. saturated with carbonic oxide. The conclusion was, therefore, perfectly clear that the patient had died from poisoning with carbonic oxide.

On January 4th, 1899, two fatal cases of gas poisoning occurred. A maidservant and two children had gone to bed in an attic room about 11 o'clock at night, and were discovered next morning shortly before 10 o'clock. The cubic capacity of the room was about 1,000 feet. There was a window, but no fireplace in the room. The floor and walls were imperfect in construction, and ventilation was probably fairly good. One child was discovered alive, and Dr. McHarry, by artificial respiration and other means, succeeded in restoring it. The other child and the maidservant were dead.

Post-mortem Examination of M. A. (Maidservant).—The lips and conjunctiva were pale. There was froth at the mouth and nose. There was a bluish-pink lividity on the dependent surfaces. *Post-mortem* rigidity was well marked. The body was scarcely cold twenty-four hours after its discovery. The muscles were red on incision. About eight ounces of pink serous fluid was found in the left pleural cavity, and about six ounces in the right. About two ounces of a similar fluid was found in the pericardial sac. The lungs were pink in color, and in both there was subpleural emphysema. There was a large amount of frothy mucus in the bronchi. The larynx and trachea were injected, and pink in color. There was no edema or congestion of the lungs. The stomach and intestines were pale pink in color. The stomach contained fluid food, and its internal surface was pale. The esophagus and spleen were blue. The liver and kidneys were redder than normal on their cut surface. The meninges of the brain were congested and bluish-red in color, but otherwise normal. The brain substance was normal.

Samples of the blood were taken from the right auricle, and on examination by the carmine method were found to be 76.6 per cent. saturated with carbonic oxide.

Post-mortem Examination of M. C., aged 4 years.—The appearances were similar to those of the case just described. There were some punctiform hemorrhages on the surfaces of both lungs, but no subpleural emphysema. There was, however, some vesicular emphysema in both lungs; otherwise the two cases were practically identical in their appearances.

The blood was examined by the carmine method, and was found in this case to be 69.5 per cent. saturated with carbonic oxide.

The conclusion was, therefore, that in these two cases also death was due to carbon monoxide poisoning.

A point of interest in connection with these cases was that a young man who slept in an apartment, separated by lath and plaster wall alone from that in which the escape of gas had occurred, also suffered from the effects of the gas. He was able to move about when he was discovered, and walked without assistance into the ambulance, which conveyed him to the Royal Hospital. Twenty-four hours later he had not completely recovered, and had no recollection of the occurrence, or of being brought to the hospital. It is probable, however, that the exertion he was allowed to make had considerable effect in aggravating his condition.

On January 10th two cases of gas poisoning occurred. One of these was a woman aged 72, who had retired to bed about 11 p.m., and was found dead at 8.45 next morning. The other was a young child sleeping in the same room, who was breathing when discovered, and was still alive when Dr. Tomb arrived. I am indebted to him for the following notes of the clinical condition of the case, and of the treatment he administered: "The child, when I arrived, was lying motionless and unconscious. The breathing was labored, and there was froth exuding from the mouth. It had a cyanotic appearance, and the pulse was quick and thready. It was to all appearances in a dying condition. I wrapped the child in blankets, allowed free access of air to the room, and applied artificial respiration by Sylvester's method. I found a difficulty in this, because, when the arms were extended, the muscles were thrown into a rigid condition from spasm. I administered coffee *per rectum*, and injected ether hypodermically, as the heart seemed to be in a weak, paralyzed condition. The child remained motionless, but could be made to cry out when flapped with a wet towel. About three hours after I first saw it there occurred a fit of vomiting, when it died. There had been no sign of improvement during this time." I was requested by the coroner to obtain for analysis samples of blood from the bodies. There was no further *post-mortem* examination.

The blood, when examined, showed in the case of the woman the distinct pink color of carboxyhemoglobin. It was found by the carmine method to be 57 per cent. saturated. The blood of the child, on the other hand, showed merely a recognizable trace of the pink color, and was not more than 5 per cent. saturated. As she had been exposed to at least as poisonous an atmosphere as the woman, there is no doubt her blood must have had at one time approximately the same saturation. The carbonic oxide had, however, disappeared from the blood, presumably from the artificial respiration applied by Dr. Tomb.

The saturation in the cases was, therefore, as follows: No. 1, 83 per cent.; No. 2, 76.6 per cent.; No. 3, 69.5 per cent.; No. 4, 57 per cent.; No. 5, 5 per cent.

This series of cases affords an opportunity for raising some

important questions in regard to the pathology and treatment of poisoning by coal gas. As is generally believed, and as was proved experimentally in an investigation which I recently carried out at the request of the Water Gas Committee,¹ the poisonous effect of gas is due to the carbonic oxide, and not to the other ingredients present, although there is no doubt that other poisonous bodies are present. The chief of these is probably benzene vapor; the quantity of this, however, which would be present in the atmosphere from accidental leakage would be harmless. Carbonic oxide is poisonous because of its affinity for hemoglobin, taking the place which oxygen occupies in the normal process of aëration of the blood. This affinity of carbonic oxide for hemoglobin is almost exactly 300 times as great as that of oxygen. A sample of blood in a flask exposed to air containing 0.07 per cent. carbonic oxide, and shaken well up so as to absorb the gases until the hemoglobin is completely saturated, will, when examined, be found 50 per cent. saturated with oxygen and 50 per cent. saturated with carbonic oxide. Similarly, if we breathe air containing 0.06 to 0.07 per cent. carbonic oxide, the hemoglobin becomes equally saturated with oxygen and carbonic oxide. Speaking generally, the larger the percentage of carbonic oxide present in the air the higher the resulting saturation with this gas. The limit for the circulating blood is reached when its hemoglobin is so highly saturated with carbonic oxide as to be unable to carry sufficient oxygen to support life. The first case in the series had reached the highest limit which has been observed (83 per cent.). The patient in this case had survived until only 17 per cent. of the total oxygen-carrying power of the hemoglobin was left unoccupied by the carbonic oxide. The other percentage in the cases is distinctly lower. The same variation in saturation, however, is observed in the blood of coal miners who have died from the carbonic oxide resulting from an explosion in the pit.²

Since the most important point in such cases is the saturation of the hemoglobin by the carbonic oxide, it may be well to refer to the method by which it is estimated. The carmine method was first described by Haldane.³ The color of a dilute solution of blood in the normal condition is yellow, but if carbonic oxide be combined with the hemoglobin it is pink. The intensity of the pink color in a given sample depends on the relative proportions of carboxyhemoglobin and oxyhemoglobin present. It is possible by adding a dilute solution of carmine to normal blood to give it the pink color of the blood containing carbonic oxide, and if the carmine solution be added from a burette we can measure the amount needed to give a pink of the same intensity as that due to any given saturation with carbonic oxide.

As regards the pathology of the condition, two facts of importance must be kept in view. The first is the effect of the saturation of the hemoglobin with carbonic oxide is equivalent to that of depriving a person of oxygen by decreasing the amount in the air.

breathed. The patient poisoned by gas actually suffers from a form of suffocation. When a person exposed to carbonic oxide is found while still breathing and placed in normal air the carbonic oxide is gradually eliminated from the blood, so that after some hours it has completely disappeared. The eliminating force is the affinity of the oxygen for the hemoglobin. This gradually displaces the carbonic oxide, and the higher the percentage of oxygen the quicker the elimination. The case of the child No. 5 is of importance because it is the first on record in which it was proved that in three hours practically the whole of the carbonic oxide had been eliminated from the blood. In any case, when urgent symptoms of suffocation are present, pure oxygen should be administered, or if this cannot be procured, artificial respiration should be performed. It is desirable that the patient should remain as short a time as possible under the influence of the carbonic oxide, and for this reason oxygen should be administered even when the sole advantage would be a hastening of the recovery.

To the second fact—the after-effect on the patient of being nearly suffocated—I wish to call special attention, since it forms the real problem with which a physician has to deal. The more important elements of the after-effect are as follows:

1. A most important effect which the deprivation of oxygen has on animals is a fall in the body temperature. This is especially true of very small animals, such as mice; it is also true of man. The patient, if cold, should be warmed as rapidly as possible by the ordinary means, applied externally and internally. It has been noted by Haldane that after an explosion in a coal mine the men are often observed to become unconscious or even to die suddenly when they reach the outside air. The comparative coldness of the fresh air is in all probability an important factor in producing this sudden effect. Again, cases are recorded in which the temperature has risen before death, suggesting that the nerve tissues concerned in regulating the body heat have been seriously damaged by the deprivation of oxygen. In this condition of the nervous system the effect of cold air may be greatly exaggerated.

2. When the blood is over 30 per cent. saturated with carbonic oxide even slight muscular exercise such as walking produces violent headache, and if the saturation be a little higher the exercise, unless extremely moderate, causes the person to become giddy and unable to proceed. In the record of the cases Nos. 2 and 3 I mentioned that a young man in the next room had suffered from the effects of the gas, but that at first he was able to walk about and yet did not recover for over twenty-four hours. The probability is that he aggravated his condition by the exertions he made. When the blood is highly saturated with carbonic oxide treatment should include complete rest. Any exertion causes a drain on the available oxygen, and when this is much reduced the smallest additional drain is probably very serious. A most valuable account of the effects of exertion on those poisoned by carbonic

oxide will be found in the Blue Book on the Snaefell Mining Disaster. An abstract of this report was given in the *British Medical Journal* of July 2nd, 1898.

3. An increased excitability of the nervous system is seen in the convulsions or tetanic spasms which occur. Effects of this nature have been obtained by the partial suffocation of animals, and it is not infrequently the case that patients die from damage to the nervous system hours, or it may be days, after they have been removed from the gas. On this question interesting notes will be found in Dr. Shaw Lyttle's Appendix to Haldane's Report on Colliery Explosions, 1896.

4. The heart is frequently affected. Dr. Tomb remarks that the great source of difficulty in the case he treated (No. 5) was the condition of the heart.

5. More remote effects still have to be noted. Dr. J. R. Davison, of Belfast, described a case of gas poisoning in which the patient died after four days from pneumonia. This patient never completely recovered consciousness. Part of the general damage which the suffocation had caused was a lowering of the normal resistance to the pneumococcus.⁴

The fact on which all the symptoms depend is the deprivation of oxygen. The mechanism of the circulation and various nerve centres are affected because they continue in activity, during the period of suffocation, at approximately the normal rate, while the available oxygen has been reduced to a minimum. This doubtless causes in the living tissues profound pathological changes. The nature of these changes is unknown apart from their functional manifestations.—*Brit. Med. Journal.* W. H. P.

REFERENCES.—1. Report of the Committee, 1899, Appendix 7. 2. *Vide Haldane's Report on the Causes of Death in Colliery Explosions, 1896.* 3. *Journal of Physiology*, vol. xviii, p. 430. 4. Report of Carlisle meeting of British Medical Association, 1896.

Constipation, Habitual.—In cases of obstinate chronic constipation the systematic administration of enemata of water retained until completely absorbed is a method of treatment often attended by very satisfactory results. At the commencement a lavement of eight ounces of tepid water is given at bed-time, or, if one has to deal with a patient who is intolerant and sensitive, a weak infusion of camomile is given instead. The disagreeable sensation provoked by the presence of water in the rectum rapidly subsides and does not prevent the patient from sleeping. The administration is repeated every evening, the quantity of liquid being gradually increased to twenty-four ounces and its temperature lowered to 68° F. The patient should go to stool in the morning, and, if the attempt at defecation be unsuccessful, an ordinary enema should be given. The duration of this treatment varies from a month to six weeks. At the end of this time spontaneous defecation is generally established.—KLEMPERER, *La Sem. Méd.*, January 4th, 1899.

**REPORT OF DEATHS FROM CONTAGIOUS DISEASES IN ONTARIO FOR THE MONTHS OF
FEBRUARY AND MARCH, 1899.**

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

FEBRUARY, 1899.

Total Population Reporting.	Total Municipalities Reporting.	Total Deaths Reported.	Rate per 1,000 from all causes.	Scarlatina.	Diphtheria.	Rate per 1,000 per Annum.	Measles.	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.
2,237,882 98%	725 93%	2,568	13.7	32	0.1	35	0.2	0.01	3	0.01	16	0.08	215	1.1

MARCH, 1899.

2,271,760 99%	730 94%	2,301	12.1	36	0.2	25	0.1	0.01	9	0.05	17	0.09	235	1.2
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Population of Province 2,283,182
Registration Divisions of Province..... 777

The Canadian Journal of Medicine and Surgery

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Doctors will confer a favor by sending news, reports and papers of interest from any section of the country. Individual experience and theories are also solicited.

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VOL. V.

TORONTO, JUNE, 1899.

NO. 6.

Editorials.

PUBLICITY OF THE DEATH PENALTY.

WE learn that Mr. Ethier, M.P. for Two Mountains, who defended Samuel Parslow and Madame Poirier, the homicides, will introduce a bill to so amend Article 941 of the Criminal Code as to add that the sheriff shall have no power to admit to witness executions persons other than those whose presence is by law permitted.

Article 940 of the Criminal Code of 1892 provides that "The Sheriff charged with the execution, and the gaoler, and medical

officer, or surgeon of the prison, and such persons as the sheriff requires should be present at the execution."

Article 941 states that "Any justice of the peace for the district, county or place to which the prison belongs, and such relatives of the prisoner *or other persons* as it seems to the sheriff proper to admit within the prison for the purpose, and any minister of religion, who desires to attend, may also be present at the execution."

In Canada, so far, no serious effort seems to have been made to exclude the public from the legal but disagreeable performance of an execution. On the contrary, these lugubrious functions take place in the full light of day, and in the presence of enormous crowds of people. The little procession leaves the prison, arrives at the scaffold, the hangman performs his office, and the spectators, animated by an unworthy but perfectly human curiosity, struggle desperately and even injure each other in their efforts to secure some coigne of vantage from which the sad drama may be witnessed, with more convenience to themselves. The reporters, pad and pencil in hand, take rapid notes of what transpires. Special editions of the newspapers will be published to meet the eyes of indifferent, interested, or even enthusiastic readers. A phrase, that does not make the pulse of one man beat more frequently than is usual, fires the heart of another with enthusiasm. In describing an execution the reporter will give prominence to "the colossal nerve," "unprecedented coolness," and other dauntless characteristics exhibited by the prisoner. Such stereotyped phrases strike no sympathetic chord in the breast of the normal man, but fellow reprobates, who knew the condemned man and emulated his actions during his lifetime, now that he is dead admire him as a hero and an example to tyros in crime. All this publicity and effort to make known to others the details of what should be shocking and repugnant, do not indicate that Canadians are cruel and fond of exhibitions of sanguinary violence. Until the law limits the attendance at an execution, the people will flock to witness it, as well as any other unusual or striking spectacle. Even if people were given to feel admiration for such degenerate sports as cock-fighting, dog-fighting, and prize-fighting, the law would prevent their enjoyment, or punish it with a heavy fine. And why should the criminal law punish a spectator for witnessing a cock-fight, and yet encourage him to obtain through the intervention of a sheriff, the opportunity of witnessing the dying struggle of a fellow-creature,

who, with his hands tied behind his back, is permitted to dangle from the end of a rope? "Quite illogical," some one will say, for society must protect itself against rampant crime, and there is nothing more efficacious than the fear of death to frighten sinners. An execution and its forceful portrayal in the newspapers may stay the downward steps of men and women who are dallying with crime, but have not yet developed into murderous criminals. We do not say that the law regulating executions in Canada should be repealed and penal servitude, combined with education, adopted instead of hanging. We think that when privacy in the conduct of executions shall have shown that the people are becoming ashamed of a judicial homicide, it will then be opportune to advocate better methods for repressing the evolution of crime. In Germany, executions are conducted in a comparatively private manner. Article 486 of the German criminal procedure states, "Every execution shall take place in a locality, surrounded by walls. The persons who shall assist at the execution are: two police magistrates, an imperial procurator, a registrar, the gaoler, and twelve inhabitants of the municipality designated by the Council, as well as the prisoner's lawyer, and an ecclesiastic of the religion to which he belongs." It must be confessed, however, that in addition to the twelve citizens of the town in which the execution takes place, representatives of the press, and this is a grave error on the part of the German legislators, are also permitted to be present.

Recently at an execution which took place at Strasburg, in Germany, the reporters were excluded by a neat piece of *finesse* on the part of the local bar. To the official bill, placarded on the court house, announcing the time and place of the execution, the following notice was added: "In view of the smallness of the place the bar believes that it is its duty not to authorize the representatives of the press to assist at the execution." Generally speaking, the guillotine is erected in the largest yard of a prison, but in this instance the smallest yard was chosen by the bar precisely to secure the absence of the reporters, and thus save the public from some dithyrambic effusions on the possible nerve, courage and coolness of the condemned prisoner.

We hope that Mr. Ethier's amendment to the Canadian criminal procedure in the matter of executions will be adopted, and that the powers of the sheriff to admit reporters or "other persons" than those who are legally entitled to be present, will be withdrawn.

GANGRENE AND PHAGEDENA IN VENEREAL SORES.

MERCURY is said to be one of the principal adjuvant causes in the production of that destructive gangrene of the genitals, which sometimes attacks a chancre in these parts. The bacteriology of this formidable affection, in which the loss of the penis occurs in a few days, remains unknown. It is reasonable to think, however, that the pyogenic bacteria, the staphylococcus, streptococcus and proteus vulgaris will not act on the tissues of man in a destructive way, unless the parts into which they are introduced are deeply injured, bruised or devitalized. If the organism is vigorous, reaction ensues and is exhibited under the form of suppuration; if, on the contrary, it is incapable of reaction necrobiosis and gangrene are developed. In what way mercury can contribute to the development of gangrene is purely a matter of conjecture, and yet, in groping for a cause, medical writers do not hesitate to incriminate this friend of mankind and sheet-anchor of the physician. Thus, in 1898, a writer in the *British Medical Journal* contended, that the sloughing and phagedena, observable in the genitals of the British soldiers treated at Netley Hospital, were due principally to the active use of mercury. He alluded to the historic gangrene known as "the black lion," which attacked the genitals of British soldiers in Portugal, during the early years of this century, and stated that that lesion was also due to mercury. No evidence, either clinical or experimental, was adduced, except a graphic description of chronic mercurialization. Such a statement merely helps to prejudice the practitioner's mind against the use of mercury in syphilis.

Bryant ("Practice of Surgery," p. 463) says: "Sloughing and phagedenic sores are rarely seen except in connection with syphilis or hospital gangrene. In syphilis, sloughing is found in the intemperate and ill-fed and mostly in gin-drinking prostitutes. It attacks any surface that has been made sore, either from venereal contact or other cause. It is marked by the rapid way in which the process destroys tissues, the fetid character of the discharges, the great depression of power invariably present, and the constitutional disturbance."

That phagedena is caused by mercury is denied by Dr. Jullien, a recognized authority on venereology, who gave to the Medical Society of Paris (April 8th, 1899) a report of three cases, in each.

of which phagedena attacked a chancre, and in all three a history of paludism was made out. Dr. Jullien does not accept the old-time view that a sloughing venereal sore is probably a chancreoid. He says: "Confronted with phagedenic chancre, the practitioner should think of syphilis and look out for paludism. In the matter of treatment, he should remember the benefit of absolute rest in bed, which calms the painful insomnia, the most distressing symptom of this condition, and, if there is an opportunity, should use calomel freely." Dr. Jullien also extols the advantages of hydrogen peroxide as a lotion for phagedenic ulcers.

His defence of mercury in the treatment of syphilis, and his novel incrimination of paludism as the efficient cause of phagedena, are timely. He had the courage of his convictions to use mercury *larga manu*, when he was in the presence of a redoubtable complication.

As paludism is prevalent in some parts of the United States and Canada, it would be interesting to learn from American and Canadian practitioners, if in their experience it has been found associated with phagedena.

J. J. C.

WHY DON'T CLERGYMEN PAY DOCTORS?

THE question raised in our caption, though it has never been considered of enough importance to occupy the minds of philosophers by profession, is by no means as simple as it seems on the surface; for the usage is not wholly based on self-interest, nor wholly on charity, while it has a certain smack of both and a strong suggestion of neither. Usages which partake of this nature may be called complex.

In the rural districts of this province, where the average stipendium enjoyed by the minister of the Gospel falls somewhat short of a dollar a day, the eleemosynary sentiment is very general; and while the farmer makes votive offerings of cabbages, and the storekeeper of baking powder, it is only reasonable that the physician, not to be outdone by these, should pour out libations of black draught in the same spirit.

But it is not of the country preacher that we ask this question, but of the city representative of the Cloth, who receives as many thousands as his rural brother does hundreds, and, what with free rent and tax exemption, lecture and other fees, may be said to be

fairly comfortable in a worldly way. Why should not *he* pay his physician, as the modest and retiring life insurance agent cheerfully does? As the school inspector, the alderman, the merchant, the music teacher and the cabinet minister do? The clergyman does not know. The physician himself does not know, but would like to.

In an unobtrusive, amateurish way, we will attempt to answer this question, premising in the first place that it is the physician's fault and the clergyman's weakness. Under the guise of respect for the Cloth, or charity if you will, the physician, in the remission of his fee, is nevertheless tacitly acknowledging a counter account of generally far greater amount than the fee in question. For what were the last words of his mentor as he started practice? "Never neglect the Church, my friend—in Ontario it is the hallmark of respectability! Take an active part. Be as officious as you can be. Pose as a person of 'Moral Fibre.' Take as your maxim in life those moving lines from 'Hymns, Mournful and Mediæval':

"Crime, Wickedness, Villainy, Vice
And Sin, only misery bring;
If you want to be happy and nice,
Be good—and that sort of thing;"

meanwhile assiduously cultivating the tender beginnings of a practice." To follow these precepts it was necessary for the physician to "stand in" with the parson. If he had a wife, therefore, he placed her in the choir. If he hadn't one he straightway married a member of the Ladies' Aid. In return it was a very natural part of the Sacred Function to "boom" so exemplary a member of the medical profession. And in return for a favor so marked it was only natural that the physician (in his purer moments) should give his professional services gratuitously when they were called into requisition by the shepherd, though (in his sordid moments) he might feel that it was an excellent advertisement for the flock, and one for which others, if he held back, would willingly pay upon the same terms.

But not only do clergyman and physician frequently become colleagues from the very nature of this social relationship, but there is a striking analogy between their callings, though apparently so diverse, which must necessarily inspire mutual sympathy. A considerable part of the dealings of both is with hypochondriacs. And the mental flaw in these melancholy worthies is quite

identical, whether the patient be anxious about the care of his kidneys or the salvation of his soul; though in one case he persecutes his physician privately with his tireless fear, and in the other throws himself publicly at the feet of the evangelist with loud bellowings of terror. The difference is merely a clinical one, though in the matter of remuneration the physician has somewhat the advantage.

That such a usage speaks little for the dignity of either profession goes without the saying; and it is to be hoped that the present tendency towards independence upon both sides will become more and more pronounced. Certainly the paltry motives of self-interest, which operate in the conditions mentioned, apply to only a certain class of professional men. Physicians with any respect for themselves will not willingly barter a denominational allegiance for an advantage so cheap as that which is offered in return. In the practice of every physician there must always be much that is gratuitous, but let the physician decide such cases himself, for personal, and not for professional reasons. E. H. S.

THE CHARITY AID ACT.

ACCORDING to the report of the Inspector of Prisons and Public Charities, Ontario divides annually *pro rata* \$110,000 among its hospitals—some fifty in number. One could wish that this money could be expended as originally intended, in charity to the poor; but many means have been devised to divert it into other channels. In Toronto there is no charity hospital; every patient must be paid for in some way, by friends, municipality, or Government aid. The nearest approach to such a charity hospital is one where free treatment is the right claimed, not for the poor, but for a privileged class, the members of the Masonic Order.

In this province it is the custom to charge hospital patients \$2.80 per week. Whether that sum bears some magic relation to the actual cost of maintenance, or whether its virtue is that it divides evenly by seven, we have long been unable to decide. A perusal of the Charity Aid Act throws light upon the subject. The Act provides that no institution shall receive aid for pay patients, and defines such patients as "one who pays or for whom is paid to such institution from any source other than the public funds of the province, a weekly sum of not less than \$3.00."

Any patient who pays \$2.80 per week is able to pay \$3.00; many of them are well able to pay \$4.00 or more. But the hospital trustee, who desires to gain renown among the public, or it may be to secure a pull on some fraternal order, says, "No, my poor friend—my heart is wrung for you—you shall pay but \$2.80 per week, not \$3.00." His philanthropic vest heaves with the pride of a good deed, and of having made \$1.80 by "doing" the Province out of \$2.00 per week for each such patient.

In the Victoria Hospital for Sick Children free treatment is given to the children of Masons, although some of them are well able to pay for private ward accommodation as well as medical attendance. Why this invidious distinction in favor of the Masonic Order is made we are unable to say; that, too, in a hospital which owes so much to the contributions of the general public for the support of the poor. Wealthy Masons have—to their shame be it said!—been too ready to debase a charity. Masons who would scorn to regard themselves as unable to pay a hospital, or to become a charge upon the public funds, have drawn pay from the Government and the city for the maintenance of their children as free public ward patients, in the name of charity, and to the glory of the Masonic Order. The trustees of this hospital seem to have gone out in search of patients, and have compelled them to come in, for we are loath to believe that any self-respecting Mason would put himself or his child in the position of being supported by the public funds. Already one member of the staff of this hospital has resigned, and, owing to the above condition of affairs, we hope that his example will be followed by other members of the staff.

How long will the Province of Ontario permit the public funds to be diverted by a public institution; under provincial inspection, for the advantage of any privileged class? Let not only this but all the other abuses of the Charity Aid Act be corrected. The sooner the better.

W. A. Y.

TO PUT CHRISTIAN SCIENCE TO THE PROOF.

To cure the ills that flesh is heir to, to preside at an accouchement and usher the little stranger into this vale of tears with a solemn "imposition of hands," is one of the offices of a prominent member of the Christian Science cult in this city. He is said to get \$5 for the imposition of hands at an obstetric case. Another man boasts

that, in addition to his salary as a dry-goods salesman, he makes \$1,000 a year as a Christian Science healer; and the best of it is that he has "heaps of fun" in the doing of it, for, with true Celtic versatility, he can perform his medico-religious part with an unction which even Hamlet could not cavil at, while when among his fellow-salesmen he dilates upon the superstitious silliness of his dupes, whose religious imaginings fill him with inextinguishable laughter. Truly a strange revelation of successful charlatanry and besotted human weakness!

And while the healer is selling his soul for a few dollars, the dupes are loudly proclaiming the fact that they have turned their backs on modern scientific discovery. They care not for vaccination, isolation or disinfection; faith and prayer are their helmet and shield. Fortunately for them, though it has not been called into existence through any agency of theirs, State Medicine is powerfully operative in Canada to prevent and control epidemic disease. With increasing intelligence and a less narrow view of the medical situation, the Christian Scientists will probably imitate the homeopaths and call in the aid of hygienic measures, although it is likely that any advance in this respect will be credited by them to the Mosaic sanitary code instead of the regulations of the Provincial Health Board. In the meantime the struggle goes on. As an evidence of good faith, the healers operating in American cities have offered to establish hospitals or sanitariums at their own expense, and let unprejudiced investigators compare their results with those obtained through the use of drugs. With certain branches of surgery they do not intend to meddle, but they propose to use prayers and laying on of hands wherever regular physicians use drugs, and let outsiders record the comparative efficiency of the two systems.

This harping on drugs would make an uneducated person suppose, that the armamentarium of the modern physician consisted simply of pharmaceutical preparations. This would be an error. Some of the best agencies used in the cure of disease, such as massage, hydrotherapy, electricity, and many others, are not drugs. The Christian Scientist reasons from his own narrow past, and because he has gone ten times to the pharmacist, when he has consulted the physician but once, and because he has reaped failure from patent medicines, he claims the right to sit in judgment on modern medicine.

By all means let this bold challenge be accepted! If the Chris-

tian Science healers and their backers in Toronto will start a hospital in which they will demonstrate their powers, the experiment will be carefully watched by the public and the medical profession. They may expect a fair field and no favor, and if their results are poor, then by their works we shall know them.

J. J. C.

MEDICAL WOMEN AND TORONTO HOSPITALS.

In January last, a Woman's Number, in which all the original articles were contributed by physicians of the gentler sex, was issued by the *American Journal of Surgery and Gynecology*. The medical woman is now a factor in the community. Of course the United States is pre-eminently the happy hunting-ground for women, as that country affords a wider field perhaps in current literature, and certainly a wider territory for occupation. That the women have availed themselves of the opportunity presented is unquestionable, as in 1898 4,300 women were in active medical practice while in 1870 there were only 527. These estimated numbers comprise physicians of the Allopathic and Homeopathic Schools; also a few classed under the heading of "Eclectic" physicians. In England the "Lady Doctor" was regarded for a while with curiosity. When she appeared upon the stage of human action, the monocle was immediately adjusted, and the complete survey usually ended in some such expression as "Awfully clever, and all that sort of thing, you know, but quite impossible, quite, really, don't you know!" Now, the "awfully clever" has won the day, and the woman physician, even in England, has a small but assured following.

In Canada, not a lifetime ago by any means, one woman fought her way inch by inch, side by side, with the men, demonstrating her ability, making it possible for others to follow. Now the profession have recognized and have reason to be proud of their *confrères*, the medical women. True, the women themselves have not forgotten the prejudice against them that so widely obtained in former years, and their attitude towards the *genus homo* of the profession is still one of defence, their motto being ever—"What we have, we'll hold."

To particularize, in Toronto the medical women having already gained a foothold, now ask for a stronghold in the form of a

Woman's Hospital, the attendant staff to be composed of women. This they claim is necessary, owing to the physicians who are graduates of the Woman's Medical College having been excluded from participating as members of the active staff of the city hospitals.

The one woman's hospital in the city, St. John's the Divine, is practically a private institution, so at present cannot be expected to meet the demands of the hour. At the Toronto General Hospital is a Woman's Pavilion; surely by an amicable arrangement and a sum of money expended it could be made to fulfil all the requirements, and, no doubt, in the end this solution of the difficulty would be better for both factions than to have a common purpose divided against itself. Possibly in the near future similar privileges might be granted by the other city hospitals. Take *Punch's* advice, Medical Women, and *don't* build another hospital.

Soon Toronto will become a by-word as the city with a hospital for everybody, and everybody in a hospital. We think it is but just that the medical women should have the experience and scope which the freedom of active hospital work would give them, and we hope their project may be advanced, at least in a measure, but rather by an amalgamation with present forces than by a reaching out and leading into pastures new and somewhat green.

W. A. Y.

THE ONTARIO MEDICAL ASSOCIATION.

THE meeting of the Association this year on the 13th and 14th of June promises to be one of very exceptional interest. Particular attention has been given to the programme of papers, which includes many timely contributions from well-known members of the Association, and which, taken as a whole, pretty thoroughly covers the ground both of the specialties and of general practice.

To avoid the awkward break in the middle of the second day, caused formerly by the luncheon, a motion was passed at the meeting last year providing for a regular Association dinner on the evening of the first day, and this new arrangement will, it is expected, enable a great deal more work to be got over, and make possible a more deliberate reading and discussion of the papers. There will be the usual reduction of railway rates, and, through the courtesy of the Minister of Education, the place of meeting

will as last year be the Theatre of the Education Department in the Normal School.

SYNOPSIS OF PROGRAMME.

JUNE 13th.—Morning Session—(1) Reports, etc.; (2) "A Case of Muscular Dystrophy," by Dr. Ingersoll Olmstead, Hamilton; (3) "Relapse in Typhoid Fever," by Dr. Wilson, Philadelphia; Discussion by Dr. Alexander McPhedran, Dr. J. L. Davison and others.

Afternoon Session—(1) Presidential Address; (2) "Symposium on Tuberculosis Sanitarium Treatment," by Dr. S. V. Bowditch, Sharon Sanitarium, Boston. Discussion—(a) "Pathology of Pulmonary Tuberculosis," by Dr. John Caven; (b) "Earliest Diagnosis and Selection of Cases for Sanitarium Treatment," by Dr. N. A. Powell; (c) "Home Treatment and Prevention," by Dr. T. F. McMahon; (d) "Care and Prevention," by Dr. Charles Sheard. General discussion will follow.

Evening Session—Association Dinner.

JUNE 14th.—Morning Session—Sections of Medicine and Surgery.

Afternoon Session—Discussion in Surgery. Dr. Christian Feugier, Chicago, will open the discussion with a paper on "Diseases of the Kidney Amenable to Surgical Treatment," followed by Dr. Luke Tesky, Dr. John Wishart (London), Dr. R. B. Nevitt, Dr. Grasett, and others.

Evening Session—Business.

The titles of a large number of papers have been received. Some of these will be presented before the general session, others in the sections. Free discussion of all papers is desired. Any communications may be addressed to H. C. Parsons, Secretary, 97 Bloor Street West, Toronto.

DOMINION REGISTRATION.

It will be interesting to the readers of this journal to learn that the subject of Dominion Registration is receiving attention from the medical journals throughout the Dominion. On another page will be found an address delivered by Dr. Roddick at a recent meeting of the Medico-Chirurgical Society of Montreal, in which he goes into many of the details of the scheme. It will be instructive, too, to know that at the time of writing the doctor is in British Columbia, where he hopes to lay the matter before a large number of the profession of that province. Upon his return he will discuss it with members of the profession in the North-West and in Manitoba.

The Medical Council of the North-West Territories has already

had the matter before its legislature for the purpose of furthering the scheme of reciprocity. Manitoba is anxious and willing to lend a hand.

From the *Maritime Medical News* just to hand, it appears that the Council of Nova Scotia has sought and obtained additional legislation for the purpose of furthering reciprocal registration. Dr. Lindsay, of Halifax, the registrar, is an enthusiast, and has always taken a "keen interest." The Council of Prince Edward Island has already had the matter under discussion, and has expressed itself as "in hearty sympathy" with the scheme as laid down at the 1898 meeting of the Canadian Medical Association. At the present time it is seeking additional legislation looking toward a realization of the scheme. The Maritime Medical Association, of which Dr. R. McNeill is president, will have the matter up for discussion in July next, all of which seems to point to the fact that the profession at large is getting tired of the narrow provincial limits that at the present time exist. The Medical Council of Quebec will take up the question in July, when a favorable pronouncement may be looked for, and the Council of New Brunswick has always looked favorably upon the scheme.

In reply to a question from "M.D.," it is earnestly to be hoped that when the Dominion Parliament is ready to establish a Dominion Board there will be no "stray sheep." When once established an effort will be made to keep the standard so high that the various provinces will frame their regulations from those of the Central Board, and thus prevent the development of "stray sheep." In reply to his other question I will refer him to F. Roddick's address on another page.

The suggestion thrown out by "Reader," that a degree in Arts should be required as matriculation, is a good one, for it would help to remove much of the distrust now existing as to the methods of carrying on the preliminary examinations.

Members of the profession in Ontario interested in Dominion registration will watch with interest the attitude of the Medical Council of this province. It is thought by a good many that that body will place no obstacle in the way, now that there is an evident desire to keep the standard both of preliminary and of professional education high. This, together with the fact that so many members of the Council are already active exponents of Dominion registration, points toward a speedy realization of the much-hoped-for and much-talked-of Dominion Board.

EDITORIAL NOTES.

Dr John B. Hamilton's Successor.—Dr. George H. Simmons has been elected to succeed the late Dr. John B. Hamilton, as editor of the *Journal of the American Medical Association*. Dr. Simmons was formerly editor of the *Western Medical Review*, a monthly journal published at Lincoln, Nebraska.

Venereal Diseases in the British Army was the subject of a question to the Secretary for India last week, and elicited the information that the admission rate had fallen to 485 per 1,000 in 1897, as compared with 511 in 1896. The new cantonment rules were not brought into operation until towards the close of 1897, and could not be expected to do much for that year. The results of their working have not yet been ascertained, but the results for 1898, so far as they are known, were stated to be very encouraging.

A Premonitory Symptom of Chloroform Poisoning.—Lehmann (*Journal de médecine de Paris; Revue médicale*, February 1st) has made observations on three hundred and twenty-nine cases of anesthesia, in twenty-one of which was observed the fact that the patient kept the eyes partially or completely open, and reopened them on their being closed, and in each of these twenty-one cases various accidents supervened—*e.g.*, repeated vomiting (notwithstanding an empty stomach), sudden stoppage of respiration, a prolonged state of excitement, and even symptoms of asphyxia and syncope calling for persistent artificial respiration. From these observations he concludes that this symptom should be regarded as a premonitory sign of more or less serious complications.

Amnesia after Excitement.—Féré (*Belgique médicale*, July 7th, 1898; *University Medical Magazine*, March) states that amnesia and other disturbances of memory may supervene in persons ill with disturbances of the nervous system or in those hereditarily predisposed, after injuries, excessive exertion, and even after coitus; and that they may also follow pure psychic disturbances either immediately or after the patient has been exposed to them for some time. He reports the case of a woman, who had never been ill with any nervous affection, and who resided with a sister whom she loved very much. The latter became ill, and was nursed by the other with great diligence and care. The sister, however, died. The other remained apparently normal, until the corpse was being

removed from the house, when she suddenly lost all recollection of her sister. She remained in this condition several weeks, at the end of which time the recollection returned suddenly in a dream.

The Sanitary Value of Trees in City Streets.—Renewed attention to the subject of the bearing on the public health of trees in the streets of cities has been aroused by Senate Bill No. 412, now before the New York Legislature, the object of which is to provide for the systematic planting and cultivation of trees in the streets of Greater New York under the care of the Department of Parks. Dr. Stephen Smith, who has taken a deep interest in this subject for very many years, and who has studied it personally in Paris and Washington, brought this bill to the attention of the New York County Medical Association at its last meeting, and, as a result, the association sent a memorial to the Legislature, commending the bill most highly, both as a sanitary measure and as a means of improving New York City as a place of residence.—*Phila. Med. Jour.* [One thing we have to thank the aldermen of Toronto for in the past is their wisdom in adorning the streets with such arboreal beauty. The Queen City of Toronto can attribute its healthfulness in some degree, at least, to this cause.—ED.]

“Music Hath Charms,” etc.—The *Cincinnati Lancet-Clinic* for February 25th quotes the following from the *Medical Press and Circular*: A correspondent sends the following festive effusion: It has been suggested that music might prove a useful adjunct (in some cases, at least) where the usual routine treatment by medicine had not proved satisfactory. I venture to suggest the following well-known airs as being suitable for the cases enumerated, viz:

Retarded labor from inertia: “Coming through the rye.”

Chronic aphonia: “The lost chord.”

Melancholia: “The heart bowed down.”

Epilepsy: “Let me like a soldier fall.”

Cases of chronic deafness: “Come back to Erin.”

Pyrexia: “McCoolin.”

Cases of doubtful diagnosis: “Oh, dear, what can the matter be?”

We might suggest as additions the following:

Scarlet fever: “The lads in red.”

Noises in the ears: “Tarara-boom-de-ay.”

Isolation cases: “I’m so lonely.”

Illegitimate pregnancy: “I have a silent sorrow here.”

Nervous depression: “Cheer, boys, cheer.”

—*N. Y. Med. Jour.*

Surgery among Birds.—According to the *Medical Times* for March, some interesting observations relating to the surgical treatment of wounds by birds are quoted in *Our Dumb Animals* as having been recently brought before the Physical Society of Geneva by M. Fatio. He mentions the case of a snipe which he has often observed engaged repairing damages. With its beak and feather it makes a very creditable dressing, applying plasters to bleeding wounds, and even securing a broken limb by means of a stout ligature. On one occasion he captured a snipe which had on its chest a large dressing composed of down taken from other parts of the body and securely fixed to the wound by the coagulated blood. Twice he had brought home snipe with interwoven feathers strapped on the site of fractures of one of the limbs. The most interesting example was that of a snipe, both of whose legs he had unfortunately broken by a cruel shot. He recovered the animal only on the day following, and found that the poor bird had contrived dressings and a sort of splint to both limbs. In carrying out this operation some feathers had become entangled around the beak, and not being able to use its claws to get rid of them, it was almost dead from hunger. In a case recorded by M. Magnin, a snipe that was observed to fly away with a broken limb was subsequently found to have forced the fragments into a parallel position, the upper fragments reaching to the knee, and secured them there by means of a strong band of feathers and moss intermingled. The observers were particularly struck by the application of a ligature of a kind of flat-leaved grass wound round the limb, of a spiral form and fixed by means of a sort of glue.

PERSONALS.

THE *Canada Lancet* has passed into the hands of a joint stock company.

DR. CRAWFORD SCADDING has removed to his new residence on Bloor Street West, opposite McMaster University.

JUST as we go to press we find that Dr. A. H. Garratt will not be able to get away to the Richmond (Va.) meeting.

DR. WILLIAM OSLER will deliver the Cavendish lecture before the West London Medico-Chirurgical Society on June 13th.

DR. JAS. F. W. ROSS, of Sherbourne and Wellesley Streets, Toronto, will be out of town from the 15th to the 30th of May.

WE take pleasure in drawing the attention of our readers to the announcement of Toronto University Medical Faculty, appearing in this and subsequent issues.

DR. DOUGLAS, representative on the Council of the College of Physicians and Surgeons, Ontario, has returned to Cobourg from Clifton Springs, and his friends are glad to know that he has recovered sufficiently to resume his extensive practice.

THE Medical Profession will regret very much to learn that Dr. William Clark Cutler, senior member and business manager of the New England Vaccine Company since its organization, died in Chelsea, Mass., on Monday, May 1st, 1899. We tender our sympathy to the firm in their severe loss.

DR. J. C. WEBSTER, lecturer in gynecology at McGill University, and assistant gynecologist at the Royal Victoria Hospital, Montreal, has resigned to accept the position of professor of obstetrics and gynecology at the University of Chicago. Dr. Webster is a Canadian, and is looked upon as one of the ablest in this branch in America.

THROUGH a most unfortunate error on the part of the printers, under the heading "Current Medical Literature," appearing in the April issue of the *Montreal Medical Journal*, the original contributions which appeared in the February issue of THE CANADIAN JOURNAL OF MEDICINE AND SURGERY were attributed to the *Canadian Practitioner* instead.

DR. ELMORE S. PETTYJOHN, who for years has been medical superintendent of Alma Sanitarium at Alma, Mich., has leased that institution for a term of years, commencing on the 1st of last month. Dr. Pettyjohn has ere this established a reputation for himself in sanitarium work, and we extend to him our congratulations on taking so important a step as this, feeling sure that he will yet meet with an increased degree of prosperity, something which his personal popularity but deserves.

DR. B. L. RIORDAN and Mrs. Riordan, Dr. W. A. Young and Mrs. Young, Dr. J. Noble, Dr. C. R. Dickson, Dr. T. McKenzie, Dr. W. H. Pepler and Mrs. Pepler, Dr. Herbert Bruce, all of Toronto, left last week to attend the convention of American Railroad Surgeons at Richmond, Va. After the meeting is over, the party will visit such places of interest as Old Point Comfort, Va., White Sulphur Springs, and then go over to Columbus, Ohio, and attend the meeting of the American Medical Association, opening on the 5th inst.

Correspondence.

The Editor cannot hold himself responsible for any views expressed in this Department.

DOMINION REGISTRATION.

SIR,—In your May issue I was pleased to see an editorial on the important subject of Interprovincial or Dominion Registration. I hope the journals throughout the length and breadth of our Dominion will follow your good example, and lay the whole question before the profession.

Permit me to ask one or two questions. Suppose one province refuses to have anything to do with a Dominion Board, will it be possible for the Dominion Parliament to so enact a law compelling the "stray sheep" to come into the fold? Suppose all the provinces are agreeable, has the Dominion Parliament power to establish an educational institution for the purpose of granting diplomas for practice in all parts of the Dominion?

Yours truly,

May 9th, 1899.

M. D.

INTERPROVINCIAL REGISTRATION.

SIR,—Your journal, which is so rapidly gaining the respect of the reading part of the profession, seems to be on the right side in reference to reciprocal registration. I am glad to see that a scheme which at first sight appears practicable, is now being agitated. It does seem to me, as a patriotic Canadian, that no obstacles should be put in the way of bringing about some system of Dominion registration, but I would warn those who have to do with it that they should start off with a very high standard of preliminary education. I would suggest that candidates for a degree from what you are pleased to style "Dominion Board," should be graduates in Arts of some British or Canadian university. This being the case the arrangement of the professional course will be an easy matter. If this were done I am sure that the few members of the Medical Council of this Province, who are still fearful of the scheme, would be won over to the cause, and it is a grand one!

May 5th, 1899.

READER.

The Physician's Library.

BOOK REVIEWS.

Annual and Analytical Cyclopædia of Practical Medicine. BY CHARLES E. DE M. SAJOUS, M.D., and one hundred associate editors, assisted by corresponding editors, collaborators and correspondents. Illustrated with chromo lithographs, engravings and maps. Vol. III. Philadelphia, New York, Chicago: The F. A. Davis Company, publishers. 1899.

To review a quarto of 600 pages is not a light task, especially if, as in that one now before us, each article under the alphabetic headings has been written by a specialist. A simple review of one of the more notable articles would be instructive and reassuring, inasmuch as it reveals such advances as have been made, eliminating the useless and retaining the trustworthy. We shall simply record a few observations, made while reading the work.

In the article on "Dysentery," we notice that one ounce of a saturated solution of sulphate of magnesium and ten drops of dilute sulphuric acid are used successfully in that disease.

In the article on "Eclampsia," venesection, followed by subcutaneous or endovenous injection of a normal salt solution, is favorably spoken of. *Veratrum viride* is also commended. In the last five lines at the end of this article, the words "latter" and "former" should be transposed.

In the article on "Eczema," no mention is made of pulvis cuticolor and red Armenian bole and eosine, which are now used by Unna and Rausch to color oxide of zinc preparations, intended for the face.

The article on "Empyema" is well-written. In the last reference, which is translated from the French, the quoted formula should probably be: Chloride of sodium, 5 grammes; sulphate of sodium, 1 gramme; aq. destillata, 1 litre. It would be conducive to accuracy, in some cases at least, if physicians were allowed to translate the weights and measures of the metric system as they appear in a citation, into American or Imperial standards. *Rhus aromatics*, which is recommended in the treatment of enuresis, is a new, and it is to be hoped, a more efficient agent than its predecessors.

The article on "Epilepsy" contains many valuable hints. The dietetic recommendations are wise, and the endorsement of bromide of potassium sound.

In the article on "Erysipelas," the recommended local treatment is based on the theory that antiseptics, viz., hydrarg. perchloride, phenol, camphor and phenol, applied on, or in advance of, the spreading inflammation prevent its advance by exercising an inhibitory effect on the streptococcus. A 10 per cent. preparation of ichthylol in collodion and Lobit's combination of iodol and collodion would probably exert a mechanical, as well as an antiseptic influence on the seat of inflammation. Nitrate of silver in stick, applied to sound tissue beyond the inflamed area, probably inhibits the advance of the streptococcus by mobilizing a large detachment of phagocytes across the path of the disease, and stopping its spread, though it must be confessed at the expense of the patient's personal appearance.

The article on "Formaldehyde" will help to place this modern antiseptic in its true relation to corrosive sublimate. Its uses in genito-urinary surgery are also developed.

The article on "Gelsemium" is useful, if for nothing else but to show its many therapeutic uses to Canadian physicians, who are not in the habit of using it.

The article on "Gout" is very readable. The advice on diet is sound, and will please many sufferers who do not wish to adopt Haig's views. One most important point in preventing the development of an attack, "keeping the patient's colon empty," is not sufficiently dealt with.

The statement made by W. Koch that hemophilia is due to scurvy, is suggestive, and opens up new vistas in the treatment of various obscure hemorrhages.

The article on "Hemorrhoids" is particularly good. The conclusion in favor of the clamp and cautery as the best surgical treatment is reasonable.

The article on "Hip-Joint Disease" is most readable. The same may be said of the article on "Hernia."

The articles on "Hypnotism" and "Hysteria" show a great capacity for observation and a fund of acquired knowledge. The treatment of hysteria is good, though no mention is made of that old weapon, pil. aloes et asafetida.

The article on "Ichthyol" is very interesting, especially as the preparations of this product are now extensively prescribed internally and externally. Dr. le Tanneur's views as to its efficacy in phthisis pulmonalis, bronchiectasis and purulent catarrh are worthy of notice, and his practice deserves imitation.

The final article on "Cretinism" presents this rare condition very neatly in word pictures, but a few photographs would help powerfully to give the reader a better grasp of what is described.

The publishers deserve credit for the beautiful typography of the volume.

J. J. C.

The Pathology and Treatment of Sexual Impotence. By VICTOR G. VECKI, M.D. Philadelphia: W. B. Saunders. Canadian Agents: Carveth & Co., Toronto. \$2.00.

Until very recently the phenomena of sex, with all that pertained thereto, remained a *terra incognita* into which very few reputable medical writers cared to enter. Even at the present day the natural exercise of the function by the healthy, except within the most prescribed artificial limits, is regarded by the laity as a form of vice, and a very loathsome and reprehensible vice at that, compared to which gluttony and drunkenness are only venial offences. Possibly the reticence of both the profession and the public upon the subject has in the past been due to a prudish sense of decorum. By charlatans, however, the subject has been exploited *ad nauseam*; and when matters reach such a pass that one cannot pick up a newspaper without finding such disgusting advertisements addressed to sexual hypochondriacs—advertisements that would be ridiculous to the more intelligent reader if they were not so contemptibly indecent—it would seem high time that the subject was treated by responsible writers. The present work is excellent throughout, and though much of what it treats must already have occurred to any person of ordinary common-sense, much will also be found that will repay a careful reading. There are so many gloomy neurotics claiming without reason to be suffering in this way, and going from physician to physician with their harrowing tale of woe that it is easy for one who listens to their disclosures to form most erroneous ideas of the cause and symptoms of this neurasthenic condition.

E. H. S.

Practical Materia Medica for Nurses. With an Appendix, containing poisons and their antidotes, with poison emergencies; mineral waters, weights and measures, dose list, and a glossary of the terms used in materia medica and therapeutics. By EMILY A. M. STONEY, graduate of the Training School for Nurses, Lawrence, Mass., late head nurse Mercy Hospital, Chicago, Ill.; late superintendent of Training School for Nurses, Carney Hospital, South Boston, Mass.; author of "Practical Points in Nursing." Philadelphia: W. B. Saunders, 925 Walnut Street Canadian agents, Carveth & Co., Toronto. 1899.

This book has been issued as a companion to "Practical Points in Nursing," which has had so large a sale as to stimulate the author to greater efforts. There is little doubt of the fact that there are too few books of reference specially suited to the wants of those who have undertaken as their life-work, the

noble occupation of nursing the sick and the afflicted. The book is divided into three parts. Part I. deals with the classification of drugs, Part II. with materia medica, and Part III. with such subjects (so important to nurses) as the dose list, weights and measures, poison emergencies, confinement table, mineral waters, glossary, etc., etc. We think it most useful that doses of drugs should be given in both metric and apothecaries' weight. This has been done in this book, and will be found valuable by all nurses. There is little doubt that Miss Stoney's book will have a large sale.

W. A. Y.

The Journal of Tuberculosis. A quarterly magazine devoted to the prevention and cure of Tuberculosis, Asheville, N.C. KARL VON RUCK, B.S., M.D., editor. April, 1899.

We received three weeks ago this journal in its enlarged form. The issue of April contained amongst its original contributions one by Dr. Chas. A. Denison, of Denver, Col., on "A Plea for the Better Appreciation of the Tuberculin Test for Latent Tuberculosis"; one by Dr. H. Longstreet Taylor on "The Tuberculin Test in the Early Diagnosis of Tuberculosis." Dr. J. H. Williams also published in that issue a report of twelve cases of pulmonary tuberculosis, and Dr. H. J. Chapman a paper on "The Care of the Digestive Tract in Tubercular Patients." The editor announces the intention of making *The Journal of Tuberculosis* "a publication representing the best American endeavor in dealing with the prevention and treatment of the disease to which it is specially devoted." We feel sure that such will be the case, as Dr. Von Ruck has given many years of careful and laborious study to the subject. The *Journal's* subscription price is but \$1.00 per annum.

W. A. Y.

The Cruise of The Cachalot. Round the World After Sperm Whales. By FRANK T. BULLEN (First Mate). Toronto: William Briggs. Cloth and Paper.

A wonderful book, enthralling in its well-told encounters with the inhabitants of the mighty deep. A tale that has seldom been told before, and never so thrillingly. Many an old salt will hear "four bells" chime ere he finds his interest lag, or pauses to pity, perchance, the placid lives of the land-lubbers.

LITERARY NOTES.

THE Smith, Kline & French Co., of Philadelphia, Pa., recently issued a diet list for the most prominent diseases. It will be found to be very valuable to practitioners. Physicians in many cases have, in giving directions as to the use of certain forms of diet in particular classes of illness, almost had to go into the kitchen themselves to superintend the preparation of such foods. This will be avoided entirely by the use of such a diet list as that of this firm, all the attendant physician has to do being to tear out a slip and hand it to the patient's friends. This list includes different diets for typhoid fever, acute febrile diseases, post-operative diet, nephritis, cholera infantum, dyspepsia in its different forms, diarrhea and debility.

THE firm of Geo. Morang & Co., Limited, who recently moved into handsome new quarters, at 90 Wellington Street West, this city, and who are Canadian agents for the well-known house of Appleton & Co., New York, are to be congratulated on securing the services of Mr. A. P. Watts, who recently joined their firm. Mr. Watts is too well known to the profession all over this country to require any introduction. He was the principal of the firm of A. P. Watts & Co., Toronto, and for many years now has been closely identified with the medical book trade of this country. He is a careful and shrewd business man, and through square dealing, not to speak of personal popularity and *bonhomie*, has won many friends among the doctors. There is no one in Canada who has this class of trade at his finger tips better than A. P. We feel sure that the Morang Company will find that their medical book trade will increase from month to month with this gentleman at their right hand.



Selected Articles.

AUTOMOBILES FOR MEDICAL MEN.

IN writing on this subject the *Medical Record* says: As yet the horseless carriage is not looked upon with favor by the majority of medical men. Like the bicycle, it is not considered a means of locomotion quite in keeping with the dignity of the profession. No class, perhaps, is more tied down by ethical considerations than the medical. Notwithstanding the objections that may be brought forward against the automobile when viewed from this standpoint, there is no doubt that if it can be plainly shown that it possesses decided advantages over the much-loved horse as a means of traction, all this prejudice will quickly pass away. In France to a greater extent than in any other part of the world has the motor carriage taken root and flourished. About twelve years ago a steam motor vehicle was first seen on the streets of Paris, and the sensation it created may be better imagined than described. Unisightly, ungainly, and vomiting smoke and steam, it was a terror alike to man and beast. In the summer of 1898 an automobile exhibition was held in Paris at which more than a thousand of these invisibly impelled carriages were on show, and the wonderful improvements in shape, beauty, and speed that have been effected in twelve years were fully exemplified.

To return, however, to the question as to whether the horseless carriage is a suitable conveyance for the medical man, it should be said that before passing any opinion on the subject many points must be taken into consideration. The *British Medical Journal*, referring principally to oil motors—which are practically the only ones used in Europe on account of the difficulty of obtaining electric motive power—says: "It is obvious that the real value of a motor car to a medical practitioner must depend on the efficiency of the motor or engine by which it is driven. Choice of a vehicle is really the choice of a motor." Here in this part of America, where almost all small towns and often villages have their power-houses, the conditions are different. The motive power is at hand, and it is not a matter of choice. The superiority, then, of a conveyance driven by electricity over one pulled by a horse would seem to be: "First, that after the initial cost it is cheaper; second, that, unlike the horse, a uniform rate of speed can be kept up; and, third—and a most important point in those parts of the country where the winter is long—it can run unimpeded through snow and without slipping on the icy pavements. Added to these

advantages the horseless carriage possesses this distinctive quality, that it is ready at any hour of the day or night without the need of coachmen; thus making the doctor who owns one a most independent individual; and, lastly, that by taking his key with him the doctor can leave his carriage alone and unprotected. The *Lancet* of March 20th, 1897, commenting on the use of this description of vehicle for country practitioners in Great Britain, says: "It seems that motor carriages should prove especially useful to the general practitioner, and particularly to the country one, on whose shoulders the burden of maintaining the two or three horses, with their attendant expenses, necessary for a large and scattered practice, falls very heavily. At present the initial cost is large, but on the other hand the cost of working them is small, and the country roads in England, unlike those of America, are peculiarly well adapted to their use." Fears have been expressed that the horse will be altogether driven out of the field by the motor carriage, but we venture to think that this will not be the case. In fact, it appears more likely that in the long run the horse will be the greatest gainer by the new order of things. No longer will he be compelled to shiver in the cold while standing at the door of a patient's house, no longer will he be urged by whip when time is precious, or be overworked in any way, but will be relegated to his proper place—as a friend to be well treated and as a luxury to be enjoyed in leisure hours. Of course the time has not yet come—and probably many years will elapse ere it does come—when it will be possible to use motor carriages in all parts of the country. Still, this much may be said—that in those places where electric power is available the advantages of the automobile will become more and more patent to the medical man. The motor carriage, however, is by no means perfect, and perhaps its most unpleasant defect is the horrible humming noise it makes when travelling through the streets of a town. Nevertheless, looking at the rapid strides made in the direction of improvement within the past few years, there is every reason to hope that this objection will be eventually entirely overcome.

"JUST AS GOOD."

THE opposition to proprietary preparations has always seemed to us to be not only unreasonable but in direct line to work harm to the profession. That these products possess intrinsic and superior qualities is proven by the fact that imitations are being continually foisted upon patients directly and the profession indirectly by unprincipled individuals whose only excuse is that a cheaper product is "just as good." We will not stop to discuss this, as there can be but one opinion in the matter. It is substitution, and the substitute will never respond to the tests which have proven the original to be

meritorious. It is obvious that good preparations only are ever imitated. They have established reputations for themselves, and necessarily created a demand. This having been accomplished, a plausible substitute, usually worthless and always cheap, is not only offered in lieu of the genuine as being "just as good," but the fraud is pushed one step further by deliberately substituting a product without value for one of proven worth. This is one of the best of the arguments advanced for the practice of physicians dispensing their own drugs. By prescribing the remedy in original packages and instructing patients how to detect any fraud as certain, a result in a way of obtaining the genuine article is attained.

A new fraud has cropped up recently, and it is one not so easily detected by the physician. He must be very well posted and on the alert to discover it, and it is a double wrong which is perpetrated. As the *Medical Register* says:

"Whenever a preparation of value is perfected by the enterprise and patient investigation of any manufacturing chemist, there immediately appear upon the market a score of imitations, the manufacturers of which have expended upon their product a minimum of time, capital and brains. To trade thus upon the reputation of an established remedy by similarity of name is culpable enough, but to go further and appropriate for the imitation the literature of the original, making it appear that certain investigations which have proved the value of a given remedy apply not to this particular product, but to the crude ingredients which it contains, regardless of the special manner in which they are combined, is a form of imposition which should not be tolerated."

This may be "smart" and "business shrewdness" on the part of those guilty of such practices, but in the opinion of the more decent and honest part of the community it is scoundrelism of the most depraved sort. Filching the fruit of another's work, and appropriating the good name of a remedy for the purpose of deception, are deeds that should not only be discountenanced by the profession, but attended by fit punishment. Appropriating the literature is not the only evil which has been wrought. Those unprincipled individuals who have done this have gone so far as to publish the results of the investigations of physicians of repute on a genuine product as referring to their own inferior mixtures. Not only this, but they have had the audacity to append the names of the physicians. The difference between the original and assumed reports lay in the substitution of the similar name of the "just as good" imitation for that of the original and meritorious preparation.

This question is one of more than ordinary importance to the manufacturer, but it is little less so to him who employs his products. The honest manufacturer cannot afford to have his product hurt, even by implication. He cannot afford to lose his legitimate trade, acquired in a legitimate manner. In fact, he has everything to lose, whereas the pirate who tries to appropriate the reputation of his product has all to gain and possesses nothing worth losing.

The medical profession cannot afford to reap ill-success because it will not take the trouble to investigate these frauds. It is absolutely necessary to do so, and its cry to substituors and all the fraudulent gentry should be: "*Cave canem.*"—*St. Louis Med. and Surg. Journal* (Editorial).

PERTUSSIS—ITS CONSTITUTIONAL TREATMENT.

THE host of remedies recommended for pertussis indicate that many drugs give slight relief, while none are of striking value. In the most recent work on therapeutics fifty-six drugs are mentioned as useful in this disease, while in another sixty-three are mentioned. Antipyrin, all things considered, is most effective. "After having prescribed it hundreds of times for children during the past six or seven years," says one writer, "I have yet to see unpleasant results from its use." Antipyrin does not cause depression, as it sometimes does in adults, and very rarely any rash. In the majority of cases it notably mitigates the severity of the paroxysm and markedly reduces their number, usually as much as one-half, but it rarely causes them to entirely disappear. It certainly largely reduces the danger of complications. It does not, however, materially reduce the duration of the disease, though in some cases it has that effect. Antipyrin certainly does check the vomiting which so often is the result of each paroxysm, more frequently than any other drug. This drug is best administered in solution of water, to which a little syrup of tolu is added, which well covers its bitter taste. The initial dose for a child one year old is one and a half grains every four hours, for a child of four years two grains every two hours. The interval between the doses may be rapidly reduced to two hours. Quinine is the favorite remedy of many practitioners, and is unquestionably effective. It must, however, be given in large doses, not less than ten grains being required daily for a child of four years. It frequently, however, causes vomiting, and many parents object to giving it in such quantities. Some practitioners, who have a large experience, speak very positively of the advantages of a combination of antipyrin and the bromides, especially with Peacock's solution of the bromides, the latter being very suitable indeed for carrying a salt like antipyrin. Of this mixture it is advised to commence with eight grains of antipyrin in a drachm of the bromide solution three times a day, gradually increased to ten grains of the former and two drachms of the latter *t.i.d.* This mixture has a therapeutic value of considerable worth and produces most encouraging clinical results. Belladonna has long enjoyed high repute in pertussis, a repute which some think has been over-estimated. It must be given in large doses to be effective and is a dangerous drug in careless hands; many fatal accidents result yearly from its use. Its physiological effects, if long continued, are

extremely unpleasant. Some have found alum of undoubted benefit in cases marked by profuse secretion; it is cheaper than antipyrin, is easily administered, and is well tolerated in solution with a little syrup of lemon in doses of two grains every three or four hours at two years. If expense is an element of importance, alum may be alternated with antipyrin. Children sometimes continue to cough and vomit after the disease should naturally begin to subside. In such cases oxalate of cerium is useful, except possibly during the first three weeks of the disease. Opium has undoubtedly the power to control the paroxysms, but it is not a proper drug for long-continued use. Occasional doses, however, are quite proper to secure rest when sleep is broken at night. Codia is one of the best forms for such use; a child two years of age may receive one-tenth of a grain, to be repeated if necessary. Trional may be employed to secure sleep, and chloral may also be used for the same purpose.

THE NUTRIENT VALUE OF MEAT PREPARATIONS.

BY DR. R. A. BOLAM.

THE names of trade preparations are "for obvious reasons" suppressed, which detracts from the value of a useful paper. We fail to see why the profession should not be supplied with a reliable and independent report on all the meat preparations in the market; such would be greatly esteemed. Carefully home-made beef tea contains 2.5 per cent. alcohol precipitate, mainly proteid.

The different commercial preparations are grouped under four heads:

I. *Beef extracts*, of which Liebig's is the type, are made by extracting meat at at least the boiling point. They have practically no nutritive value, but are valuable adjuncts to a sick dietary on account of their stimulating and restorative properties and savory taste. The beef teas made from them come as a welcome relief to milk.

II. *Beef juices* are expressed from the meat and preserved in a condition approaching the raw material as nearly as possible. The majority are unpalatable. In the more concentrated alcohol is used as a preservative. Analyses of those most commonly used showed a proteid merit varying from 8 to 11.5. But the cost is relatively exorbitant. When it is remembered that the proteid merit of lean beef is 20, and that the best of these juices has little more than half its food value, it is evident that the homeopathic doses usually given can have little nutrient value. But they are useful when digestion is at its feeblest and an effort must be made to tide over a crisis by repeated doses of some nutrient and stimulant fluid.

III. *Beef jellies and essences* give 9 to 11 per cent. alcohol precipitate, which consists, instead of proteid and gelatin, as might be expected, almost entirely of mucin. Although mucin is a compound proteid it is very doubtful if its food value is even as good as gelatin. It is to be suspected that they are manufactured much as calf's foot jelly is, and that the only difference lies in the addition of the flavoring principles of meat. As foods, then, they are of little worth. They have no advantage over home-made beef tea.

IV. *Fluid beef preparations*, now largely exploited on account of their relatively high proteid value, are very much alike in composition and mode of manufacture. They consist essentially of a Liebig extract, often of soft consistence, to which a considerable proportion of finely-divided dried beef has been added. The muscle fibres and numerous phosphate and chloride crystals can be readily discerned by the microscope. The added meat, of course, has been coagulated by heating, and when the fluid beef is mixed with hot water as directed, the liquid has much matter in suspension which forms a considerable sediment, containing practically all the proteid present.

The proteid merit of four preparations varied from 10.5 to 26.5. These preparations stand pre-eminent in their nutrient value, and the best of them present all the qualities of good lean meat in a handy and palatable form. It must always be remembered, however, that even fluid beef is only a little more nutritious (as 5 to 4) than the original meat, and must, therefore, be prescribed in proportionate amount. The statements current in advertising literature, as to the concentration of such products, hold good only for the extractives and salts, not for the important proteid constituents.—*The Med. and Surg. Review of Reviews.*

THE THERAPEUTICS OF GOUT.

THE treatment of gout ranges over a wide field—according to the phases of the complaint, the kind and nature of the local manifestations, and the age, temperament and antecedents of the patient.

Treatment of gouty paroxysm.—The treatment of acute gout is conducted in the main on the same lines as that of other inflammatory ailments. At the outset the bowels are relieved by a suitable purgative; if the fever runs high the patient is confined to bed; the inflamed joints are kept at rest, the diet should consist of milk and farinaceous articles, and diluents should be freely administered. It is necessary, however, to bear in mind the specific character of the inflammation. Gouty patients bear bleeding badly, and neither venesection nor the application of leeches is to be recommended. The application of cold to the inflamed joints must be strongly deprecated; such a proceeding involves serious risk of metastasis of

the morbid process to the internal organs. The joints should be simply swathed in cotton wadding covered over with oil silk. This appliance acts as a light poultice and promotes cutaneous transpiration and a kindly development of the tumefaction, which is usually followed by great relief of pain. Repeated purgation is undesirable. During the inflammatory period the use of meat should be avoided and alcoholic beverages also withheld. In sthenic cases during the febrile period the acidity of the urine should be controlled and its volume increased by the systemic exhibition of bicarbonate or citrate of potash, combined frequently with some salt of lithium; one of the most effectual combinations of such being Cassava, containing carbonate of lithia, bicarbonate of potash and citrate of potash $\bar{a}\bar{a}$ grs. v., p. ext. cascara and p. ext. kava kava $\bar{a}\bar{a}$ gr. $\frac{1}{4}$ to each drachm of the compound. For the purpose of controlling the gouty inflammation and shortening the attack, a most useful preparation is colchicum, ten to twenty-five drops of the wine or tincture two or three times a day, though care with this drug must be used as some experience a sense of faintness after taking it. Iodide and bromide of potassium, salicine, the salicylates are also used with sometimes striking effect. Alkaline substances have for a long time past been employed largely in gout, both as pharmaceutical preparations and as components of mineral waters. Of the latter Vichy natural waters have been found most helpful owing to containing, as they do, so large a percentage of such ingredients. Sedentary occupations and idle habits of life are highly injurious to gouty persons, and tend strongly to promote recurrent arthritic attacks and to engender the various irregular manifestations of the disease. Gouty persons should be encouraged to lead an active out-door life, taking exercise systematically in the open air in the way of walking, horse-riding and driving. Gouty persons should also avoid heavy dinners and late hours. The body should be clothed in light flannels, and the action of the skin promoted by the use of baths and friction.

PASSING OF PRESCRIPTIONS.

It appears to be a fact that the prescription business of druggists is lessening in this country; as much as 50 per cent. is the estimate of the author of a paper recently read before the Maine Pharmaceutical Association and published in the *Pharmaceutical Era*, March 9. He does not discuss the reasons for this fact, which are, perhaps, more obvious to medical men than to pharmacists, but dwells at length on its disadvantages, as it is natural he should. His paper, however, is not altogether a labored *ex parte* plea, for it contains a number of points that are worthy of consideration.

Leaving aside the occasional necessity of the physician being his own dispenser, especially in country practice, the unreliability of

many druggists, a fact made known by experience to many physicians, the introduction of the tablet triturates, and the various granules, parvules, etc., which, with some objectionable and many valuable features, have apparently come to stay among us; leaving out all these together with others that might be mentioned, there are still good reasons for regretting the disuse of the prescription, and some of these are fairly stated by the writer referred to above. It must be admitted by all that the physician who can readily compose a really good original prescription, for whatever ailment, is a higher grade man in some respects than one who is not thus qualified, and it cannot be denied that with the use of all the modern facilities for self-dispensing, this accomplishment of ready prescription-writing is becoming to some extent a lost and disappearing art. It indicates too often, it is to be feared, a lessened familiarity with *materia medica*, which in itself is an indication of medical indolence or lack of study. The old, much-abused, polypharmacy of the shotgun prescription was in some regards less evil in its tendencies than this.

It is doubtful whether the medical profession can ever dispense with the qualified pharmacist by dispensing its own drugs. This being so, whatever tends to degrade or render *functus officio* the pharmacist is liable to have its recoil on our profession. It is for our interest as well as the druggists' that such an outcome should be averted. The dignity of the medical profession, whatever we may say about it, is also somewhat compromised if we are to be apothecaries as well as physicians, and to some of our clients we may come to be regarded as only a higher grade of drug peddler—the mercantile rather than the professional side appealing more directly to their mental apprehension. The remedy for all the possible disadvantages lies in our taking a middle course, not discarding the good there may be in controlling the administration of our remedies, not giving up the aid we have had in the past from the dispensing pharmacist. And above all we should, as members of a learned profession, seek to never lose any prestige given the time-honored customs of the past. The physician of to-day should be able to prescribe as well as be, in a fashion, his own compounder.—*Edit. Journal of Amer. Med. Assoc.*

THE INCREASE OF CANCER.

THOSE are startling words that occur in Dr. Roswell Park's article on "A Further Study into the Frequency and Nature of Cancer" in a recent issue. *If the present increase in the death-rate from cancer continues, ten years from now, i.e., in 1909, there will be more deaths in New York from cancer than from consumption, smallpox, and typhoid fever combined.* But that the statement comes from so worthy and conservative a source, one of our best

known American surgeons, who is besides recognized as a special authority on cancer, and whose investigations on the subject have added so much to our knowledge that was valuable and suggestive, we should be inclined to doubt the possibility of there being any truth in the sombre prophecy.

Dr. Park is not, however, alone in his conviction that cancer is rapidly on the increase. The best English and French authorities on the subject are agreed that the affection is much more prevalent among their respective countrymen and women than it was twenty years ago. Billroth pointed out in the early '90s how rapid was the increase of cancer cases in recent decades in the Vienna General Hospital. Nothnagel, in 1897, confirmed this report for later years, and in the volume on "Intestinal Diseases," in his system of "Specielle Pathologie und Therapie," reports a conversation with Billroth just before the great surgeon's death, in which they were agreed that the increase in the frequency of cancer was noticeable, not only among hospital patients and the poorer classes, but also in the private practice and among the wealthy patients. Nothnagel finds that the experience of the last five years has only confirmed this impression.

It is evident then how important a subject the etiology of cancer is becoming. State aid has been asked for its investigation and it is clear that the object is an eminently proper one. A great question of public health, one that is every year becoming more urgent and serious, is involved. If, as Professor Park's investigations and his copious gleanings from medical literature all over the world seem to indicate, the cause of cancer is a parasite, its discovery and the investigation of its biological history would probably confer upon mankind one of the greatest blessings that medical science could bestow. The subject is a most interesting one to medical men, and while no effort should be spared to make the personal observations of every cancer case as complete as possible so that it may be of scientific medical value, every member of the profession should encourage by every means in his power the present earnest effort to make the serious investigation of the etiology of cancer one of the great problems that our Empire State shall solve for her own and the world's benefit.—
Medical News.

TUBERCULOSIS IN THE INSANE.

DR. H. H. TOMLINSON, superintendent of the St. Peter's Asylum, Minnesota, published in the *New York Medical Journal*, March 11th, an interesting paper on the observations and findings as to phthisis in the insane. The period of his study covers from January, 1895, to 1898, during which time fifty patients succumbed to the disease. None of these had their condition thus diagnosed on admittance, and tuberculosis appears to have originated during

their residence. The special type of the disease, in the great majority of these cases, was a peculiar one. There was little emaciation until shortly before death, and rational signs were largely absent or not so marked as cases outside the institution. Attention was generally first called to these cases by the elevation of the temperature, general weakness, and sweating.

The course of the disease was often greatly prolonged, and even after the patient had taken to his bed he might continue a merely vegetative existence for months or even a year. The condition of the lung; on *post-mortem* was also peculiar; the cavities were few and small, the lung heavy, its tissue dense, the basis often only a mass of dense fibrous tissue, and the only normal-appearing portions were found in the middle and anterior regions of the lungs. Dr. Tomlinson calls attention to the close resemblance existing between these conditions and those of bovine tuberculosis, except that in the latter, the animals having been killed, the stages are not so advanced. Undoubtedly the conditions must have existed for a long time before attention was called to them.

The doctor recapitulates his paper by stating that phthisis in an old institution like St. Peter's is relatively more common than in the general population; for the last year covered by the paper, the percentage of deaths was forty-six. It is most common among degenerates, in whom the lungs and kidneys are both likely to be affected with the connective-tissue degeneration described. He considers this tendency to connective-tissue degeneration to be especially a manifestation of inherent defect; in other words, a symptom of degeneracy. In seventy-two *post-mortems* made during the period, he found all more or less involved as to the lungs and kidneys. In no case was there a perfectly healthy condition found. He therefore accounts for the relative frequency of tuberculosis in the insane to this original defective tendency of the organism, rendering them the more liable to infection and morbid conditions favored by the overcrowding, etc., in such institutions. —*Louisville Journal of Surgery and Medicine.*

A HOUSE EPIDEMIC OF SYPHILIS.

BY WILLIAM S. GOTTHEIL, M.D.

THANKS to a better knowledge of the dangers and modes of transmission of syphilis, and to superior habits of cleanliness, epidemics of the disease are rare in America; yet they occur among the lower classes of our population with greater frequency than is generally supposed. In the *New York Medical Journal* of March 26th, the writer records one in which the disease was introduced into the family, according to history, by vaccination, and in which

every member of the family of eight was ultimately infected. The first case was a child of two years; then the mother, aged 34; then two girls, aged 9 and 14 respectively; then a boy of four; then a girl of seven; and then a nurseling, aged six months. The father escaped until the last; but late in the spring he came to the clinic with a characteristic eruption, alopecia, etc. The cases were all severe; there were several irites; all had obstinate and some very extensive mucous patches; and the two-year-old child had a syphilitic pneumonia. The site of inoculation was discoverable in two cases only, probably on account of the lateness and irregularity with which the patients were brought to the clinic. In the mother it was upon the centre of the cheek, and in one girl it was upon the eyelid. The family were very poor, living in one room, and their habits were very uncleanly.—*Author's Abstract.*

A CURIOUS POCKET-PIECE.

IN the *New York Medical Journal* of February 4th, 1899, Dr. William S. Gottheil describes a case in which a woman carried a piece of her own skull in her pocket for years, "for good luck." She appeared for treatment for a different affection, and it was discovered incidentally that a syphilitic periostitis had begun again around the scar left by the ulceration from which her piece of bone had come twelve years before. As in the present case, she had not at that time attached sufficient importance to the matter to consult a physician about it. The sequestrum, of which she was quite proud, was an ovoid piece of bone measuring $2\frac{1}{2} \times 2$ inches, and was composed of two adjacent portions of the two parietal bones, the sagittal suture in the middle showing beautifully. Its upper convex surface showed the outer table of the skull intact. The under concave surface was composed mostly of cancellous tissue; but all along the middle line, at the suture, the inner table was present, showing that at that place the entire thickness of the skull had been lost.

Apart from its curiosity, the case is of interest as showing the very extensive destruction of important organs that can take place in syphilis without systemic reaction or much personal inconvenience. The entire thickness of the skull had been destroyed, and the meninges necessarily exposed; yet the inflammation had not spread to those membranes, and the patient had hardly considered herself sick.—*Author's Abstract.*

THE annual report of the Ontario Board of Health for 1898 is just to hand and contains much important information on matters pertaining to the health of the Province.