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Original Communications.

THE RELATION OF THE ASEPTIC AND ANTISEPTIC METHOD TO THE TREATMENT OF THE LESIONS OF SYPHILIS.*

BY DR. GERSTER, NEW YORK.

I. *Aseptic Treatment of Primary Induration.*

The nature of the specific virus of syphilis is not known. In most cases its local and general manifestations are amenable to appropriate systemic and topical remedies.

It is not intended here to dwell upon the nature and treatment of syphilis as a general disease, only inasmuch as some of its more common local phenomena require surgical treatment will their consideration be deemed within the limits of this paper.

The anatomical structure of the primary induration, of tuberculous syphilides, and of gummy swellings, resembles closely that of recent tuberculous deposits; and their course of development and termination in central coagulation necrosis, fatty changes, or caseation, also bears much resemblance to the affections caused by the bacillus of tuberculosis.

As long as softened syphilitic foci remain subcutaneous and are not exposed to the influence of the air and its pus-generating germs, their course is bland and slow, and their tendency is to fatty degeneration, encapsulation, and final absorption. But as soon as a softening syphilitic deposit comes under the influence of the pyogenic elements contained in the atmospheric air, its slow and bland character is changed to a most destructive one. Thus syphilitic nodes of the internal organs,

being protected from contact with the outer air, rarely, if ever, terminate in ulcerative destruction: they generally tend to fatty involution, absorption, and cicatrization. Specific deposits of the outer skin, the mucous membranes—as, for example, of the nasal and oral ones, on the other hand, are all noted for their pronounced tendency to rapid ulceration or gangrenous destruction.

The explanation of this peculiar difference in the behavior of indurations or tumors essentially identical in morbid character, is to be found in the fact that the poor nutrition and low vitality of the cellular elements composing a primary or secondary syphilitic node, exposed to pyogenic infection by contact with the outer air, offers very favorable conditions for the rapid development and destructive multiplication of germs that are notoriously deleterious even to healthy tissues exposed to them. Pus-generating cocci deposited on the excoriated surface of a syphilitic focus, as, for instance, a primary induration of the prepuce, or a gummy swelling of the nasal bones, will, by their multiplication, lead to massive invasion and rapid ulcerative destruction of the densely infiltrated and poorly nourished node.

Syphilitic ulcers of every kind present a combination of syphilitic and of pyogenic infection.

If we succeed by appropriate systemic treatment in preventing the extension of the central softening of a syphilitic node to the surface, ulcerative changes will also thus be prevented. For example: The timely administration of large doses of iodide of potash may prevent necrosis of the nasal bones, which are the seat of a growing, gummy swelling. Their dense infiltration pertains to syphilis; their necrosis, however, is caused by the invasion of pyogenic germs. But we possess another means for preventing ulcerative destruction of syphilitic deposits located in the outer skin. They are more exposed to pyogenic infection, but they are also more accessible to local remedies.

The aseptic protection of the surface of the primary induration offers an easy remedy for preventing the formation of the primary ulcer or chancre.

True, that the prevention of the ulcerative destruction of a primary induration of the prepuce will not prevent the systemic development of syphilis; but it will, nevertheless, constitute a

* Read before the Ont. Med. Association, June, 1887.

valuable service rendered to the patient, who will be spared all the suffering, annoyance, and danger connected with the development of the primary ulcer.

If a patient, exhibiting a recent primary induration of the penis, presents himself for treatment before the appearance of the pustular excoriation, or before the epidermal film of the formed pustule is broken, and if the surgeon thoroughly cleanses and disinfects the affected parts, afterwards carefully enveloping the penis in an aseptic dry dressing, ulceration of the indurated node—that is, the development of a primary ulcer—can be effectually prevented.

The node will lose its epidermal covering, but the aseptic dressing will exclude pyogenic infection, and the course of development and involution of the syphilitic deposit will be as though it were subcutaneous. A small quantity of lymph will exude from the excoriated surface, will be imbibed by the aseptic dressing, and will exsiccate—thus forming a hermetic seal and protection to the diseased tissues.

Fatty disintegration of the infiltrated tissues will be followed by the formation of new epidermis, and when, after three or four weeks, the dressings come off, a cicatrized, though still somewhat indurated portion of skin will be exposed to view.

Specific rash, and other manifestations of systemic infection, will appear in due course of time; but the incalculable extension of the ulceration to adjoining non-infiltrated parts of the skin, and the formation of suppurative buboes and other complications will be obviated. The following case may serve as an illustration:—

Case H. B., aged 25, presented himself Jan. 2nd, 1887, with a hard, elevated node, the size of a nickel, occupying the dorsum penis, and another smaller induration near the frenulum. Suspicious cohabitation had been indulged in for some time until within a few days of the visit. Bilateral indolent inguinal lymphadenitis was noted, and the presence of specific infection was assumed. The patient was kept under daily observation, and was directed not to meddle with any blister that might appear on the indurated spots. Jan. 8th.—A yellow discoloration was observed occupying the apex of the larger node, and was looked upon as an indication that a pustule was forming. The entire penis was carefully cleansed with green

soap and warm water, and was disinfected with a 1:100 solution of corrosive sublimate, good care being taken not to break the transparent layer of epidermis covering the discolored spot. A thick layer of iodoform powder was sprinkled over both indurated nodes, and a small patch of iodoformized gauze was placed over them—this being held down by a narrow, oblong compress of corrosive sublimate gauze, snugly bandaged on with a muslin roller. The meatus was exposed for micturition, and the patient was directed not to interfere with the dressings, and to report daily. The first dressing remained undisturbed until Jan. 17th, when its external part, getting disarranged, was removed. The strip of iodoform gauze was found firmly attached to the underlying indurated nodes, and had the appearance of a hard, flat cake, that had been evidently soaked through by lymph or serum some time since its application. Evaporation of its aqueous contents had converted it to the shape just described. It was left *in situ*, and a fresh outer dressing was applied.

At the same date (Jan. 17th), the girl with whom the patient had held commerce, presented herself for examination, at the author's request, and was found to be covered with a small papulous specific rash. The appearance of her throat, the universal adenitis, and two freshly cicatrized spots on the labia minora, left no doubt of her being subject to florid syphilis. She remained under prolonged specific treatment, and in May, 1887, still exhibited pharyngeal ulcerations.

Jan. 25th.—The dressings applied to the patient's penis became again deranged, and had to be renewed. The immediate covering of the nodes, consisting of iodoform gauze, was still firmly adherent, and was left unchanged.

Feb. 12th.—A general malcalous rash appeared on the patient's body, and systematic treatment by mercurial inunctions was commenced.

Feb. 20th.—The entire dressings came off the strip of iodoform gauze in the shape of a perfectly dry scab, to the inner side of which was found attached a patch of shiny scales, consisting of effete epidermis. The nodes, which were formerly prominent, had receded to the level of the surrounding skin, and the induration, which still could be felt, was marked by a coat of fresh-looking young epidermis. The patient received fifty inunctions of blue ointment, which freed

him from all cutaneous symptoms of the disease. In May, pharyngeal ulcerations appearing, the inunctions were resumed. The size and hardness of the initial sclerosis were visibly diminished by this time.

It seems in the foregoing case that the ulcerative destruction of the primary induration was forestalled by disinfection, and subsequent aseptic management. Without them the imminent formation of an initial sore would have inevitably occurred. The treatment of the fully developed chancre would certainly have been a much more disagreeable, painful and filthy experience than the simple manipulation of once cleansing and protecting the initial induration. The site of morbid process thus protected against "external irritation," that is, pyogenic infection, ran, as it were, a subcutaneous and bland course of slow involution, the aggregate of discharge during forty-three days not exceeding the small quantity required to permeate a strip of four layers of iodoformized gauze, covering an area of about two-thirds of a square inch.

II. *Antiseptic Treatment of the Primary Syphilitic Ulcer.*

The results obtained by the various time honored and well-established forms of local treatment of the primary syphilitic ulcer, all bear out the assumption that the specific alteration of the affected tissues only serve as a predisposing condition to the subsequent ulcerative destruction of the initial sclerosis. The ulceration is directly produced by the engrafting of purulent infection on a soil that has been devitalized by the dense cellular infiltration characteristic of initial sclerosis. The rapid destruction observed in chancre is always signalized by the detachment of the epidermis raised in the shape of a pustule, under which we find a yellowish, brittle necrobiotic nucleus, which is the first to succumb to the onslaught of the pyogenic organism, deposited on it by the manipulations of the patient or otherwise.

The various forms of local treatment successfully employed for the cure of chancre are all antiseptic in character.

Their aim is either the prompt removal of the infections discharged by prolonged baths and frequent moist dressings, or disinfection by weak or concentrated caustics, or a combination of mea-

sures directed towards a rapid removal of the deleterious secretions with chemical disinfection. As the most powerful and most effective arrester of the destructive course of phagædenic chancre, the actual cautery is to be mentioned the sovereign destroyer of all microbial parasites.

(a) *Chemical sterilization and surface drainage by medicated, moist dressings.*

The energy to be applied to the local treatment of an ulcerating initial sclerosis should be proportionate to the virulence and destructiveness of the morbid process. In most cases the resistance of the vital forces combating the morbid process would be sufficient to check the damage. This is attested by the numerous cases of neglected chancre that end ultimately in spontaneous cure. Hence, in most instances, a mild treatment by local antiseptic baths, combined with moist antiseptic dressings, will be found sufficient.

Frequent removal of the soiled dressings forms the most essential part of this plan of therapy. The patient is directed to provide himself with a wide-mouthed one-ounce vial, which is filled with suitably proportioned small square pieces of lint or gauze, over which is poured a moderate quantity of a one per cent. solution of carbolic acid, or a 1:5000 solution of corrosive sublimate. The cork-stoppered vial can be easily carried by the patient, who is enjoined to dress the sore or sores at least once every hour, and oftener, if the discharge be very profuse. In the morning and evening a prolonged local bath in the same solution is advisable. In many cases this plan will be sufficient to check the extension of the ulcer, and to bring about cleansing of its bottom.

Another mild form of antiseptic treatment consists of the application of iodoform powder to the ulcerating surface. The objectionable odor of the drug can be excellently masked by the admixture of equal parts of freshly roasted and ground coffee. As soon as the appearance of a cicatricial border is apparent, these modes of treatment should be abandoned in favor of the application of strips of mercurial plaster, which should be renewed in proportion to the amount of discharge. Cicatrization will be very much hastened by this change.

(b) *Chemical sterilization by strong caustics.*

Cases of greater virulence which do not yield

within a fortnight or so to the mild plan of treatment by scrupulous cleansing and disinfection, or in which rapid extension of the ulcer does not justify temporizing, require the application of escharotics. The author has found a 50 per cent. solution of chloride of zinc the most convenient and most effective of all chemicals recommended for the cauterization of chancre. Its application is to be done as follows:—The ulcer and its vicinity are subjected to a careful cleansing, by a mop of cotton dipped in a 1:1000 solution of corrosive sublimate. Crusts and scabs overlapping the edge of the sore must be gently removed. A small piece of clean blotting-paper is applied to the ulcer and its vicinity with gentle pressure to remove all moisture. A moderate quantity of the caustic solution is applied to the sore with a glass rod or matchstick, care being taken not to corrode unnecessarily the surrounding healthy skin. Previous thorough drying of the integument with blotting-paper will best prevent overflowing of the caustic. All the nooks and indentations of the margin of the ulcer must be carefully covered by the solution. As soon as the base of the sore assumes the color of parchment, which will occur in from three to five minutes, cauterization is completed, whereupon the surplus of caustic should be removed by the application of another piece of blotting-paper. The eschar is dusted with a little iodoform coffee powder, and is protected from injury by strip a of moist lint or gauze.

If the cauterization was sufficient, further extension of the ulcerative process will be arrested thereby. In from two to six days, according to the depth of the eschar, a narrow line of demarcation will appear, and the eschar being detached, a healthy granulating surface will become visible. This should be dressed with strips of mercurial plaster until cicatrization is completed.

Insufficient chemical cauterization will not check the ulcerative decay of the tissues. In proportion to the incompleteness of the application, partial or total extension of the ulcer will be observed. In some cases only a tongue of renewed ulceration will be seen extending outward from the margin of the eschar. In others, the ulceration will spread all around the cauterized patch, thus demonstrating the entire inadequacy of the application. The surgeon's error should be in favor of too much rather than too little of the caustic.

When the process is found to be extending more or less in spite of a previous cauterization, deficiency should be corrected without delay by a renewed application.

(c) *Sterilization by the actual cautery.*

Phagedænic forms of chancre, characterized by dusky swelling and a rapidly-spreading more or less gangrenous decay of the penile tissues, can be rarely arrested by anything short of the energetic application of the actual cautery. In some cases renewed searing will be required to check the trouble brought under control in one part of the ulcer, but extending further in another direction from a limited part of the lesion. It is especially important to search out all recesses overlapped by the undermined margin of integument, as they are the chief nidus of active infection. The thermo-cautery, or red-hot iron, should be well inserted in all of these recesses and sinuses, otherwise the result will be incomplete or entirely unsatisfactory. The wound should be packed with very narrow strips of iodoform gauze while the patient is still under the influence of the indispensable anæsthetic, and care should be taken to line all nooks and crevices of the irregular wound with the gauze. The object of this is to prevent retention, and to secure prompt disinfection of the discharges which needs must be absorbed by the dressings. The penis is enveloped in an ample compress, moistened with warm carbolic lotion (1 per cent.), over which is placed a piece of rubber tissue to prevent evaporation. Daily change of dressings is to be done after a hip-bath, which will very much facilitate their painless removal. The febrile disturbance regularly noted with these most virulent forms of specific ulcer, and the general debility and anæmia, which is its main predisposing cause, appropriate roborant and anti-febrile general treatment.

As soon as cicatrization shall have commenced, the affection is to be treated like a simple ulcer.

The foregoing view of the relation of suppuration to syphilitic lesions is based exclusively upon clinical data, and requires corroboration at the hands of pathologists more expert in systematic and exact research than the author. One object of these remarks was to arrange the clinical facts pertaining to syphilitic ulcerations under a general principle, from which the therapeutic measures usually employed for their cure could be easily and

logically deducted. Another object will be fulfilled if the foregoing thoughts of a clinical observer will induce further inquiry into the interesting and practically important field of mixed parasitic infection.

INJURIES RELATING TO THE ELBOW-JOINT.*

BY J. P. BROWN M.B., L.R.C.P., GALT, ONT.

Among the most common and at the same time most troublesome accidents to which young boys are liable, are those relating to the elbow-joint. While Erichsen, Wilson, Miller, and a number of other authorities in surgery say nothing in regard to the comparative frequency in the sexes of accidents in this region, Holmes tells us very pointedly that fractures and dislocations at the elbow are much more common among boys and young men than among persons of the opposite sex. My own experience is in strict accord with this dictum, for while I have had a goodly number of boys pass through my hands suffering from elbow accidents, yet I never saw a girl suffering from a similar injury. In speaking to my medical *confrères*, I find that their experience in this matter agrees pretty generally with my own. This almost total one-sidedness seems to be a peculiar circumstance, as our Canadian girls are almost as fond of out-door pastimes as our boys; witness as we may our ice-ponds, skating rinks, and toboggan slides in winter, and our croquet and tennis lawns in summer.

There is one field, however, supplying probably one-half the cases, which the boys have about entirely to themselves—the very extensive one of free rides on wagons and sleighs; and if our municipal councils and magistrates were sufficiently active in rooting out the evil, this class of injuries would materially weaken in regard to severity as well as frequency. During infancy and boyhood—fractures at the elbow or perhaps more correctly, separations at the epiphyses—are more common than dislocations; and while fractures often occur by themselves, dislocations rarely do. All authors dwell on the frequent difficulty in diagnosis, arising from several features incidental to injuries in this locality. In early

life the muscular and areolar tissues of the arm are soft and pliable, and so susceptible to rapid distention by serous effusion, that it is often, when the surgeon is summoned, impossible to tell the exact nature of the injury. How frequently, when he arrives several hours after the accident, there is so much tenderness and swelling, that although he can discover deformity and produce soft crepitus between the segments of the severed cartilage, yet fails to diagnose with absolute certainty, whether the head of the radius is *in situ* or not, whether the condyles have been separated from each other or the shaft, and whether the olecranon itself has entirely escaped injury or displacement. The surgeon is almost forced to treat cases of this nature on general principles.

The text-books tell us that when serious doubt presents itself, we should for a time abstain from active treatment, place the injured arm on a pillow, apply evaporating lotions, and when the swelling abates, reduce the parts to position and put on our splints.

It appears to me that there are one or two serious objections to this line of treatment. In the first place, the evaporating lotions do not reduce the swelling to any appreciable extent, for the very obvious pathological reason, that the displaced fragments, whether fractured or dislocated, are of themselves a source of constant irritation to the tissues, and must be until reduction is effected; and in the second place any physician, whose reputation is not thoroughly established, would be sure to lose what little he possessed by any such protracted waiting. Hence, if not productive of direct good, such procedure would scarcely be justifiable. I have often also doubted whether the orthodox active treatment as usually laid down by our works on surgery, is altogether to be relied on. For almost all the multitudinous injuries in the vicinity of the elbow, flexing the arm to the right angle, the application of splints, the arm being kept in a position midway between pronation and supination, and supported by a sling, appear to be the *sine qua non*. Erichsen makes some exception in the case of head of the radius being displaced forwards. He favours the straight splint, but leaves the question open; while all authorities enjoin the straight splint in fractures of the olecranon. These I believe are about the only exceptions to the general rule.

* Read before the Ontario Medical Association Toronto, June, 1887.

My own opinion is, that our text-books are too lax in dealing with cases of this nature. We have general principles instead of fixed data to work upon, the result being sometimes detrimental to the best interests of the sufferers.

During childhood, not only are the tissues soft and yielding, and the bone textures merely in a process of consolidation, but the little patient is restless, nervous, irritable, and not easily controlled. It is often a difficult matter to so bandage the arm in a flexed position, that the various segments constituting the joint may continue *in situ* as when the splints were first applied; as the swelling in the arm abates, the bandages slacken, thus favoring displacement; this untoward result much to the doctor's annoyance, being aided also by the irrepressible activity characteristic of the early years of life. This is bad enough when the latter is not absolutely certain in his diagnosis; but infinitely more so when he is certain, and when he knows that a proper reduction has been effected.

Of late years I have as a rule pursued a line of treatment, somewhat at variance with the orthodox methods, and in nearly all cases have used straight splints of pasteboard held in position by starch bandages as the first dressing. One of our chief difficulties in many of these cases is, first to find, and then to insure for the future, the position of the head of the radius. We are told that full extension will reduce a dislocated head. If that is the case, then continued extension will insure continued reduction; and a week in that position would in a great measure restore the orbicular ligament to its original attachment.

In separation of the epiphyses of the humerus, well padded anterior and posterior splints would give perfect immobility, a thing so essential in juvenile cases; while it would limit to a minimum the retractive force of the triceps. In dislocation of the ulna backwards, when there is any reason to suppose that the head of the radius may have been displaced, the straight position after reduction, if continued for a week or so, would effectually guard against all peradventures; and so with nearly all complicated cases. I think from my own personal experience, as well as from the anatomical construction of the joint itself, that there are few injuries at the elbow in juvenile life, in which, for the first dressing, the long well padded

splints are not preferable to angular ones. Hamilton recommends that passive motion in elbow injuries be commenced at the end of one or two weeks. If that be allowable, then the long splints could be safely removed after the like interval, and angular splints adjusted, if the nature of injury demanded it.

I was very much pleased to see, in the October issue of the *Canadian Practitioner* for 1886, that Dr. White, the esteemed Secretary of our Association, had advanced views very similar to my own, in an able address delivered before the Huron Medical Association. In that article, however, there was no citation of cases; and probably I cannot do better than conclude, by briefly relating my own experience in this matter for the past few years.

CASE I. On May 9th, 1881, D. B., a boy aged thirteen, fell off a branch of a tree, alighting on his elbow upon the stone-bed of Mill Creek, producing a compound fracture of the olecranon process. The wound was ragged, oblique, directly over the process, and nearly two inches long. The olecranon was severed and retracted slightly by the triceps muscle; the forearm flexed and the joint laid open, venous hemorrhage being quite profuse. The clothing being removed, I flexed the arm still more, and douched it freely with tepid water, thus checking the hemorrhage and cleansing it from foreign matter. The arm was then fully extended, parallel with the body, bringing the segments of bone almost in juxtaposition. A long, well padded splint was applied in front of arm, from shoulder to wrist, and the bandages so arranged as to draw down somewhat upon the upper fragment. The wound was dressed with carbolic oil, one to eight, on lint, oil-silk protective, light bandages, and patient put to bed. The olecranon was separated from the ulna about the eighth of an inch. Patient improved very nicely. There was slight rise of temperature. The wound filled with granulations, and by the tenth of June was entirely healed. There was bony union, but the olecranon process seemed slightly elongated. This was one month after the accident and marked the commencement of passive motion; this was gently but persistently carried out, and when, after another month's interval, I again examined the lad, the adhesions at the joint had become pretty firm; for although passive motion had been

practised daily, he could only bend the arm to an angle of 140 degrees.

On the 30th of July, nearly twelve weeks after the accident, Dr. Radford kindly administered chloroform, and we broke up the adhesions by forcible flexion, bringing the arm to a little less than a right angle. More could not be done with safety. Passive motion was of course continued; the result was that the boy has a very useful arm, flexing to a right angle—with full pronation and supination. Owing probably, however, to the elongation of the olecranon, he could never fully extend the arm after the forcible flexion under chloroform.

CASE II. On the 4th of June, 1885, Mrs. R.'s little boy, aged 21 months, fell off a table, injuring his right elbow. Owing to my absence from home, I did not see him until the 7th. By this time the joint was very much swollen; the child was feverish and crying with pain. It was very difficult to tell the exact nature of the injury; still, there was soft crepitus, and I thought the head of the radius was thrown forward. The limb was extended fully, with coaptation; well padded pasteboard splints applied, the full length of the arm, and retained in position by a starch bandage. The child was placed in his crib and arm extended on a pillow; all pain subsided. A week later I removed the splints; the swelling had gone, the radius was *in situ*, and bringing the arm to a right angle, a starch bandage was applied for another fortnight. The child trotted about quite contentedly and fully recovered.

CASE III. On August 10th, 1885, Mr. C.'s son, a stout little fellow, aged 5 years, fell some distance, upon his elbow. I saw him in less than half an hour; there was fracture at the epiphyses of the condyles. This was very distinctly marked; the whole elbow projected backwards, and being replaced by extension, slipped back again the minute the arm was released. The head of the radius was also thrown out to the front. There was a good deal of external bruising, but no laceration of the flesh. The boy had a full, soft, fleshy arm; and it seemed to me almost impossible to insure the retention of the head of the radius, together with the fractured humerus, by means of the angular splint. Coaptation, together with extension, reduced the head simultaneously with the severed condyles. Extension was kept up while the long pasteboard splints and starch bandage were applied—this, too, with moderate tightness, to prevent

the segments of the humerus from slipping upon each other. A few hours later, I loosened the bandages somewhat, by snipping the upper and lower ends for a short distance. There was no discoloration of the hand and very little pain; the splints were not removed for two weeks. When examined, the head of the radius was in position and the humerus had united at the epiphyses. There was a good deal of ecchymosis all round the joint, but no tenderness on pressure. The arm was bent to a right angle and an appropriate splint applied for another two weeks, resulting in perfect cure.

CASE IV. On January 18th, 1886, a medical friend sent for me in consultation. A Mr. G.'s son, aged 10 years, had fallen on the ice on New Year's day, injuring his elbow. There was a good deal of swelling about the joint when the doctor saw him, coupled with deformity and obscure crepitation. He diagnosed separation of the epiphyses and displaced radius forwards. He reduced the arm and put on the orthodox angular splint; the patient apparently did well. On examining him, however, in the office that morning, he found the head of the radius dislocated forwards. The forearm could not be extended fully, neither would it permit of being brought to a right angle. We administered chloroform and then put on full extension. The head of the radius was pressed, without much difficulty, into its natural place and one of us holding it in position, the other bent the forearm to an acute angle, thus effectually preventing the head of the radius from again slipping forward. The arm was bound in position, and kept there for a week or two, resulting in perfect recovery. It is by the kindness of the attending physician that I am permitted to report this case.

CASE V. On September 24th, 1886, the son of Mr. H., aged 9 years, fell from a grocery waggon, alighting on his elbow, and resulting in separation of the shaft of the humerus at the epiphyses; radius was *in situ*. Believing from past experience that the long splint was best and safest, I applied my ordinary pasteboard with starch bandage, thus securing immobility. After the first day or two, the boy was allowed to walk about, hanging his arm by his side. In two weeks I dressed it again, with angular splint, and in due course recovery was perfect.

CASE VI. On October 23rd, 1886, Mr. F.'s son, aged between 9 and 10, was thrown from a waggon with great force, falling with all his weight upon his extended left hand. I found the arm pronated and flexed, and shortened fully two inches; the forearm was dislocated directly backwards. The olecranon process could be felt beneath the skin—behind the humerus, while the projection of the condyles, forward, increased the anterior posterior diameter of the joint very materially. The inner condyle was movable, while the transverse diameter seemed to be considerably increased. Counter-extension was performed by an assistant. Reduction was produced by extension over the knee, but as the coronoid process was locked in the trochlea of the humerus, it took all the strength I had to accomplish it. The width of the joint, however, was not reduced; the internal condyle being movable and very prominent; there was evidently separation between it and the shaft; the radius, apparently, had not been displaced. As I still felt somewhat doubtful with regard to the full extent of injury, I again put on the long splint, padding the inner condyle, however, so as to counteract the brachialis anticus; this time, however, only for a week. On removing the bandages, the whole arm was in a state of ecchymosis, from the internal hæmorrhage produced by the injury. The olecranon and head of the radius were in position, and the inner condyle firm, but prominent as before. I adjusted an angular splint, which patient wore for several weeks, followed in turn by passive motion. The arm is strong, but somewhat limited in movement; pronation and supination are intact; the hand can be brought to the mouth, but cannot be extended or flexed to full extent—by two or three degrees; the projection of the inner condyle is sharper than usual, while the breadth of joint still continues. On the whole, however, he has a very good limb; his people are well satisfied with the result, and frequently compare his case with his cousin's, who, after a similar injury, had his arm completely ankylosed.

I cannot claim for this paper perfect accuracy as to my views; but such as they are, they arise as a result of experience; and if they serve as a modicum of food for thought, if not for discussion, I shall be more than satisfied.

THE RELATIONSHIP OF INSANITY TO MASTURBATION.*

BY STEPHEN LETT, M. D.,
Med. Sup't to the Homewood Retreat, Guelph, Ont.

In endeavoring to estimate, and arrive at conclusions, as to the relationship that exists between the unnatural gratification of the sexual appetite by masturbation, and the psychological effects consequent thereon, we are met at the threshold of the enquiry by a lack of reliable data upon which to base opinions or demonstrate facts. The very secret nature of the vice prevents us from knowing by whom and to what extent it is practised. If we turn to hospital and asylum statistics, unreliable as they are in other matters pertaining to the causes of insanity, they are absolutely worthless in this particular. The admission papers filled out by the family physician do not in a very large majority of cases throw any light upon the subject, and in the few instances where masturbation is set down as the cause of insanity, it is but a factor or a single link in the long chain of combined causes which led up to and finally culminated in an attack of pronounced mental alienation, whilst in many instances it is not a cause but the result of disease in the nerve centres, its proper significance in such cases being that of a symptom the same as insomnia, delusion, restlessness, or other phenomena which go to make up the clinical history. It is now a pretty generally accepted fact that there are very few, if any, single factors, other than of a traumatic or syphilitic nature, which are of themselves efficient causes for the production of insanity; and that, in order to form a true estimate of the forces which are at work in producing this ever increasing malady which is overflowing our asylums and filling our gaols, we must look at the subject from a general rather than a restricted point of view, and take into consideration the whole environment of the individual, making strict inquiry into his race, type, family history, bodily health, and his struggle for existence. But perhaps in not one of the ascribed causes of insanity is this general inquiry of more importance than in that of masturbation.

Some people will no doubt contend that masturbation, *per se*, is quite sufficient to produce insan-

*Read before the Ont. Med. Association, June, 1887.

ity, and many writers accurately describe a class of so-called "Masturbational Insanity": but if all those who masturbated to excess became insane, it would be beyond the powers of any government to provide asylum accommodation for this class alone. It is not, however, the strong and healthily constituted rustic lad, physically strong and mentally sound, who comes under its baneful influence to any very serious extent. His indulgences—and, I presume, the most of them do indulge—are not usually carried to any very great excess. He has an abundance of vital force and nerve power which can stand a moderate amount of depletion without any very serious damage to his general health or mental vigor. Not so, however, with the weak, nervous stripling, tenderly raised in the vitiated atmosphere of a large city, whose ancestral inheritance is, physiologically speaking, of a low type—the boy or girl who comes into the world with an unstable nervous organization, with an insane diathesis, as some have aptly described it, with his whole animal economy crippled, and who never had the proper controlling influence of his nerve centres adequately measured out to him. This is the individual who masturbates to excess, and in whom the indulgence produces the most disastrous results. He learns the vice early in life; the more he practises it the greater is the desire to continue it, and the habit is forced upon him without his being able to exercise the controlling power of a naturally weak will, he soon prostrates all his nervous energies, and being already predisposed to insanity, an attack of melancholia or acute mania is precipitated.

In such subjects masturbation may be set down as an exciting cause of insanity. They are the cases writers describe under the head of "Masturbational Insanity," and evince feelings of egotism, conceit, self-importance; they frequently have delusions in harmony with this line of conduct, and yet they are irritable, nervous, restless, and shun society, especially of the opposite sex. They frequently become religious, and are looked upon by their parents and friends as models of morality. This condition of ill-health gradually increases, unattended at first by any acute symptoms of sudden demonstration of an unbalanced mind; the patient soon begins to act strangely. This is noticed by friends and relatives, but cannot be accounted for; overt acts are committed, and finally

an attack of acute mania renders it necessary to remove him to an asylum, or profound melancholia with suicidal tendencies and self-accusations of having "committed the unpardonable sin" may take its place.

Whilst a certain number of such cases recover, a large proportion of them are incurable. The constant drain upon the system, irritation and exhaustion of the great nerve centres, produces structural changes of a permanent character, and the patient after a variable period, lapses into a condition of chronic insanity, frequently degenerating into dementia or mental oblivion.

In early life the child who thus pollutes himself retards and arrests the healthy development of his nervous system, and the practice in such an one tends to idiocy and imbecility rather than to insanity.

Although, in the sense in which I have pointed out, masturbation may be set down as an *exciting* cause of insanity, it would be a grave error to conclude that all insane persons who practise self-abuse have thus caused their mental estrangement. Should any of you pass through the wards of a large asylum for the insane, and in the morning carefully examine the beds and linen of the patients, you would find evidence of masturbation amongst many of the chronic as well as acute forms of insanity, and would be able to note amongst them all classes of mental alienation. In many of these cases the practice is but a symptom and not a cause of their illness. The intellectual part of our nature being disabled, the animal passions burst forth and self-indulgence in all its unrestrained gratification reigns supreme. This condition is often noticed in the early stages of the general paralytic. It is frequently seen in puerperal insanity, though here it may in part be due to local irritation. It is also noticed in that form of insanity coming on at the climacteric period, when it has been spoken of as "the final blaze of passion before its complete extinction or altered condition"; and perhaps the same remark would apply with some force to an old man of seventy-five summers, whom I once had under my care, and of whom, like DeQuincey and his opium, "to ask whether on any particular day he had or had not indulged, would be to ask whether his lungs had performed respiration or his heart fulfilled its function." Dr. Savage, in his admirable little work on Insanity, records a

case where self-abuse was habitually practised by a chronic lunatic at the advanced age of ninety.

Of late years so much has been accomplished in Italy, France, Germany and England, as well as on this side of the Atlantic, in a topographical survey of the brain and mapping out centres for the various functions of the body, it seems desirable to give a synopsis of what is known regarding a centre for the sexual function, irritation or disease of which would naturally produce modifications in the sexual appetite, and might be a cause or result of masturbation.

The theory of Gall and his followers, "that the instinct of propagation or sexual appetite has its seat in the cerebellum, and that this portion of the brain is exclusively devoted to that function," seems, in the light of our present knowledge derived from recent experimental and pathological research, to be entirely disproved. Ferrier failed to find any indications of excitement of the generative organs in monkeys or other animals, male or female, during irritation of the median or lateral lobes of the cerebellum. The foundation had been taken from Gall's theory by the experiment of Flourens on a cock, the half of whose cerebellum he had removed. The mutilated animal having been put several times with the hens, always tried to tread them but never could succeed on account of his inability to maintain his equilibrium; and it is further stated that, notwithstanding this traumatism, his testicles were enormous.

Clinical facts also go to refute Gall's theory. The case is recorded of a girl in whom the cerebellum was absent, nevertheless she suffered from nymphomania; and of another who suffered in a similar way when there was atrophy of the cerebellum. But the finishing stroke to Gall's hypothesis appears to be given by Luciani, who on the 2nd of May, 1882, removed the whole of the cerebellum of a bitch; she on the 2nd of September was in heat, and presented tumescence of the vulva, as well as a sanious discharge from the vagina, together with other signs of eroticism. A lover was obtained for her, and with much satisfaction, coitus was several times successfully accomplished. She became pregnant, and in due course brought forth four living puppies.

Having thus shown that the cerebellum is not the centre of the sexual function, as was formerly supposed, it is important to adduce such evidence

as can be obtained which will indicate its probable seat. Up to the present time the point does not appear to be settled, or its probable location established with any degree of certainty, but from data given, it would seem that the upper part of the spinal cord, the medulla and the pons, have something to do with the sexual function.

Ferrier states that "the instances in which disease of the cerebellum have coexisted with priapism, have been chiefly cases of apoplexy or hemorrhage into the middle lobe, a condition of things eminently calculated to cause irritation of the subjacent posterior surface of the medulla oblongata and pons. Whilst irritation directly applied to the median lobe of the cerebellum produced no vascular turgescence of the generative organs, it has been found by Segalas, that irritation of the posterior aspect of the medulla and pons produces this effect." Eckhardt and others have likewise shown that irritation of the pons and as high up as the crura cerebri, cause vascular turgescence of the generative organs and priapism. This effect, however, may be due to the relaxation of the local blood vessels in the sexual organs, which would be a natural sequence to certain injuries of these nerve centres.

It is held by some of the most able scientific men of the present day that the sexual desire is in close relationship with the emotions, and that the cerebral centres which contribute to the emotional state, are also, to a large extent, the centres for the sexual appetite. Thus Ferrier states, "that from certain facts of experiment, we have reason to conclude that the centres of sexual feeling are probably localizable in the regions connecting the occipital lobes with the lower and inner part of the 'temporo-sphenoidal lobe'; and he adds that, as the reproductive organs in women form such a preponderant element in their bodily constitution, they must correspondingly be more largely represented in the cerebral hemispheres, a fact which is in accordance with the greater emotional excitability in women and a relatively *larger development* of the posterior lobes of the brain."

It would also seem quite probable that the centre for the sexual appetite is in close proximity to the centre for smell. As in the lower animals the sense of smell is one of the most powerful excitants of the sexual desire, the location pointed

out by Ferrier as the probable one, would also fulfil this condition. The localization of the sexual centre, however, is a subject which requires further proof from experimental and pathological investigation.

That masturbation is a most debasing, debilitating and depressing vice, which has a deleterious influence upon the physical, mental and moral nature, is beyond doubt. It is equally true that its baneful effects are, *cæteris paribus*, in direct ratio to the early age at which it is practised, the extent to which it is carried on, and the nervous instability of its unfortunate victim.

Masturbation occurs in both sexes, and under similar conditions is equally harmful to the mental vigor of either. It is practised by the youth not yet in his teens, indulged in by the adolescent, and not abandoned by the octogenarian.

Masturbation, with an adequate predisposition, is an exciting cause of insanity; it is, perhaps, more frequently a symptom of that disease, but when present it hampers treatment, retards recovery, and in many instances precludes the possibility of a cure.

Correspondence

To the Editor of the CANADA LANCET.

SIR,—In your article, in the July number, on "American Graduates in Canada," you state very fairly why reciprocity in medical degrees is not advisable, albeit the 'Council,' not the schools, is responsible. Still the influence of the schools in the Council shows itself clearly in one "vexatious requirement." A student from a confessedly better school in the United States, no matter how well up, is not permitted to present himself for examination until he has spent a term at a Canadian school, and paid about \$120 in fees.

As to British licentiates, reasons why they should be re-examined are evident. That many of our best men find a difficulty in passing some examinations in Britain is undeniable; yet it is well known that many of our worst go abroad to avoid the Council's examination, and I have yet to learn of one who failed to obtain a license in less than a year if he applied to the right place.

It is generally admitted that the Council's matriculation is too easy. It is known that two

and one-half years and a bogus certificate of having been an apprentice for a year fulfils the requirements of time, that men with the rudiments of an English education, during this time, get up both matriculation and professional work, that the standard of examination is altogether too low. If British licentiates may practise in Ontario, the Council is powerless to reform these abuses, so long as some British institutions accept from our schools certificates of matriculation, and indeed several primary and final subjects as well. If the Council says to students, "you must matriculate, spend four years in professional studies and know something about your work," they may defy it, as they have done time and again, go to Britain and with only a nominal matriculation, in less than three years from the commencement of their medical studies practise in Ontario with a foreign licence. Surely no school in the United States passes students more easily or more quickly than this! Are not British examiners rather lenient with colonists?

C.

July 2nd, 1887.

MEDICAL SCHOOL CHANGE—OUR MEDICAL COUNCIL.

To the Editor of the CANADA LANCET.

SIR,—You, and your many readers have, long ere this, read of the change which one of our medical schools has seen fit to make. After a career, somewhat long for a country so young as Canada, the "Toronto School of Medicine" has ceased to exist as such, and, with the School of Practical Science, has become the "Medical Department of the University of Toronto." Men, nay, even boys, have the right to make somersaults when they see fit, and why should the same privilege be denied to medical schools?

The change referred to has been paraded in the daily papers, as though a "new" body had been formed. The name is new, it is true, and the relations are changed somewhat, but after all, with hardly an exception, the long published list of teachers, of one kind and another (there are only twenty-nine, as yet!!!), consists of the Faculty of the late "Toronto School" and that of the "School of Practical Science."

The friends of this "new departure," especially those who have made it, are at perfect liberty to

think very highly of the change of front they have found it necessary to make. In this, no one should seek to interfere with them. But, if as judicious as they should be, they will boast with great caution with regard to the future. As separate bodies, their respective records are before the public; and, while respectable, they have been by no means extraordinary. Great care should be shown, too, by these parties, in avoiding disparaging criticism of other Ontario medical schools, whose success, during many years, has been so great as to challenge attention everywhere, and to gain for them a most enviable reputation for thoroughness in the training given to their students. These schools are, owing to the high position they have attained, after many years of laborious and self-denying work, unwilling to undergo any transformation, and it is greatly to their credit to be able to say truthfully, that *no change could increase public confidence in them.*

While, however, modifications may occur in medical schools, from unforeseen causes, at any time, it is fortunate for the profession, and greatly to the advantage of the public, that we have a Medical Council Central Board, before which every candidate for licence, no matter where he has studied or graduated, must present himself. Ontario has good reason to congratulate herself on being, in this respect, far in advance of most countries, in having this one central supreme board—entirely independent of any school, or college, or university, at home or abroad. The effect of this central board's examinations in stimulating *all* our students, in *all* our schools, to work hard far harder than they otherwise would do, cannot be overestimated. It would be an evil day for the profession, as well as the public, were the Medical Council, or its carefully appointed Medical Board, to allow any tampering or intermeddling on the part of any medical school, or other teaching medical faculty. Before the Medical Council's Board all medical schools stand on precisely the same level, and all must accept, and heretofore have willingly accepted, the excellent curriculum the Council lays down.

Any attempt, as one of our daily papers (doubtless inspired by interested parties) foreshadows, to dictate a curriculum to the Council—from whatever quarter such may come, would be very audacious, and would be stoutly resisted by the

entire medical profession. To swerve by one hair's breadth from its present judicial position, with respect to all our schools, would be destruction to our respected Medical Council, while to maintain that position of perfect independence and impartiality, means its rising higher than ever in the respect of the profession, and of the people at large. Every true friend of medical education in Ontario to-day, will rally to the support of our Medical Council, should its complete independence be, in any way, assailed; for, being independent of all schools and colleges, it is the body to which the public specially looks, and may look with confidence, to have their best interests carefully and continuously protected.

OBSERVER.

Aug. 1, 1887.

Selected Articles.

THE FINANCIAL VALUE OF SANITARY SCIENCE.

The "Financial Value of Sanitary Science" formed the text for an able address given by that veteran worker in sanitary science, Mr. Edwin Chadwick, at the annual meeting of the Association of Public Sanitary Inspectors last week, and no man probably ever had more qualifications for the task, or could speak from such experience and with greater authority than this esteemed President of the Association of Public Inspectors. As complementary to the recent Parliamentary Budget, he submitted by way of example for the "health of nations" the financial value of properly qualified sanitary science. First referring to the amounts of money charged upon the community, arising from the excessive sickness and mortality which had been proved to be preventable by sound sanitation, he said some approach might be made to estimate the amount of those charges from the ascertained incomes of the life-insurance companies, which perhaps did not comprise more than two-thirds of the population. There were some ninety-three of these companies, comprising almost exclusively middle-class persons, of which companies the annual income was stated to be £23,000,000. There were also the great friendly societies of all sorts, whose aggregate insurance charges, as stated upon the authority of Sir James Paget, were £25,000,000 annually; the two yielded a total of £48,000,000 annually, three times the amount of the poor rates. And if they could ascertain the full number of the uninsured, he expected that the whole would double the total Budget for both the army and the navy, which was stated to be £32,000,000. Thus they

had an annual invasion of an enemy, in the form of preventable disease, which every year fought and won a battle against the community, and every year slew in the United Kingdom upwards of 100,000 of the people beyond the present reduced death-rate, all of whom they knew and had proved might have been saved by more efficient sanitation, and at a saving of double the annual cost of the naval and military defences. Of the the loss for the killed and wounded—that was to say, for 100,000 deaths of the wage-classes—for every death of an adult there were found to be twenty cases of painful sickness and of disablement and loss of work. The total estimated pecuniary loss for the killed and wounded in civil life might be estimated as exceeding by two-thirds the estimates voted by Parliament for the governmental expenditure of the empire. Even in this metropolis, said Mr. Chadwick, the lowest death-rate place of any capital of the chief States of Europe, or of New York or of any other great city in the United States, we have shown by what had been done by partial application of sanitary defences, there were upwards of 20,000 killed and wounded annually which efficient sanitary defences might have saved. All this excessive loss of life as well as of money, when examined, would be found to be due to wastefulness in legislation and administration. The only effective preventive would be found to be in the superior economy of tested and corrected sanitary science. In the metropolis the executive functions were generally carried out under inadequate instructions as to the qualifications required and without securities that those instructions were duly applied for the protection of the public. In their ill-informed or uninformed condition these local bodies, the vestries, were generally positively unaware of the need of the undivided attention required for sanitary service, and they gave such low salaries as often to leave the chief local health-officers under the necessity of making up their income by private practice—that was to say, curative practice—the difference between curative practice and preventive practice in the new science of sanitation not being perceived by them. A revision and consolidation of preventive functions, now scattered over different and weak departments, and systematised under one department and under unity, with an executive board under the supervision of a Minister of Health, would be found on examination to be necessary for the pecuniary relief of the population from the greatest and most grievous of its burdens, as well as for the advancement of its health and strength and the happiness of its existence. It was due to state that with all the shortcomings of defective local administration, the advances made in sanitary improvements during the reign of Her Majesty had been greater than in any country in any of the great States.

In France they had only got a centralisation against the people chiefly for military levies, and they were now only making slow progress with centralisation for the people in their places of work, for the protection of the people in their habitations, for their protection against tyranny in the productive freedom of service. In France the death-rate was 3 in the 1,000 more than in England, which meant that there was a preventable slaughter there of 112,000 lives more than there was now in England. In Germany the mortality of the army was the lowest in Europe, and there was much to say in the way of example of the economics wrought by it; but under the municipal government the death-rate of the civil population in Germany was very high; it was 6 in the 1,000 higher than in England, which meant a sacrifice of 135,000 more than were now annually sacrificed in this country. In Italy the death-rate was 8 in the 1,000 higher, which implied a sacrifice of 224,000 lives to the wastefulness of ignorance there. In Austria the devastation was still greater even than that; it was no less than 11 in the 1,000 above our death-rate, which occasioned a loss in that empire of upwards of 400,000 more than the present rate in England and Wales. But the death-rate of the army in Russia was three times greater than of the army in Germany; and the death-rate of the civil population, as described by the Registrar-General of France, was still more terrible. To an international arbitration a decisive case could be made out against the extension of such bad government over any population. These were examples of the wastefulness of ignorance and sloth against the economies of well-applied sanitary science. In the United Kingdom the mean duration of life had been advanced, during the reign of Her Majesty, from thirty to thirty-eight years, leaving a further equivalent advance dependent on the advance of a more economical sanitary organization of paid service.

In concluding his able address, Mr. Chadwick asked his hearers to accept it as true from one who had seen eighty-six summers that theirs was as good a work as the sun ever shone upon; and that, long before another eighty-six summers should have passed away, it would be recognized as work which deserved the fullest recognition and the most liberal reward, if it were carried out—as he was sure it would be—in the spirit as in the letter, faithfully, vigorously, hopefully manfully.—*Br. Med. Jour.*

BORACIC ACID IN THE TREATMENT OF LEUCORRHEA.

For months past I have made frequent use of boracic acid in the treatment of leucorrhœa in a manner hitherto unmentioned, at least so far as has come under my notice, and with surprising

success: in every case where I applied it prompt and permanent improvement resulted.

Having had some excellent results from the boric acid packing in chronic suppurative otitis, I determined to resort to its use in a similar way in a case of leucorrhœa which had for several months resisted a most persevering use of the regular orthodox remedies, *i.e.*, nitrate of silver, tincture of iodine, fluid hydrastis and bismuth, hot water irrigations, etc. The experiment was eminently successful, and the patient returned home within a fortnight, well and happy, and has so remained ever since, many months, during which time I have had occasion to resort to the remedy frequently and with uniformly good results.

My manner of using it is as follows: Having first irrigated the vagina with water at as high a temperature as can well be borne by patient, a cylindrical speculum is introduced and the vaginal walls very carefully dried, first with a soft sponge and then with absorbent cotton. This done, boric acid in crystals is poured into the mouth of the speculum and pushed up against the uterus and vault of the vagina with a clean cork caught in a uterine sponge carrier, sufficient acid being used to surround and bury the intravaginal portion of cervix, filling the upper part of vagina. A tampon of absorbent cotton is then firmly pressed against the packing and held *in situ* until the folds of the vaginal walls close over it as the speculum is withdrawn.

This should be allowed to remain three or four days or even longer, as after this time there still remain some undissolved particles of the acid, nor will the tampon seem at all offensive. The ostium vaginae, if examined in twenty-four hours, instead of being besmeared with the leucorrhœal secretion or discharge, presents a clean appearance, and bathed in a watery fluid which begins to appear several hours after the packing has been placed, and in my cases this was the only discharge noticed afterward.

However, a second or even a third repetition may be necessary, but in none of my cases, numbering nearly a score, have I found more than a second packing called for, and in many one sufficed; and in no instance has its use occasioned pain, not even inconvenience. I do not claim for this agent and method infallibility, nor should constitutional dyscrasias be ignored and this local treatment be depended on unaided to effect a cure, but here, as in the treatment of leucorrhœa by other remedies, a proper association of all means having a curative influence upon the disease constitutes the rational therapeutics. My individual experience with this remedy in the treatment of leucorrhœa, though limited to too few cases to establish its universal efficacy, if such a wide range of power can be claimed for any medicine at any time, none the less proves it as one of the agents

which, when properly employed, promises much in the treatment of the annoying and sometimes intractable conditions constituting the pathology of leucorrhœa, particularly when the change is in the vaginal glands or mucous membrane or from intra-cervical inflammation. Nor will harm likely result from its use, though it fail in maintaining the place my experience would give it.—SCHWARTZ, in *St. Louis Cour. of Med.*

TREATMENT OF ERYSIPELAS.

The treatment of erysipelas is most varied, nearly every practitioner who sees much of this affection having formulated a certain line of action for himself. This arises to some extent, I think, from the fact that simple erysipelas has a tendency to subside spontaneously in about 5 or 6 days, and often the treatment adopted obtains the credit while nature does the work. I am of opinion that the treatment must depend upon the type of the disease. In all the cases I have seen, the treatment demanded was a stimulating one. I refer to simple general erysipelas. But in localized erysipelas affecting the throat, ear, and pharynx, aconite in small doses, frequently repeated as recommended by Ringer, has been productive of the happiest effects when administered at the beginning of the attack. I will take as a typical example of simple cutaneous erysipelas that form which we so commonly see, commencing over the root of the nose, and spreading over the face and forehead. In such cases, I immediately begin the administration of 20 to 30 minims of tinct. ferri mur. (diluted of course with water) every two hours; and as a protective and palliative, I use: R. gutta percha, ʒ ii; chlorof. meth., ʒ ii, solve; zinc. oleati, ʒ ii; iodoformi, ʒ ss. M. Sig.—To be painted over the part affected. The advantage of this preparation over the powdered starch, zinc, or flour, is its comeliness. Of course, previously to applying this preparation, I have the parts carefully washed with tepid water, and often when there is much pain I use the decoction of poppy heads as a fomentation. This treatment usually effects an amelioration of the symptoms, and the disease subsides. But in some cases the course of the disease does not stop here, it runs riot all over the head and neck, and the medicinal treatment then pursued is ammonia, bark, iron, and quinine, with perhaps a grain of solid opium to obtain rest. I am happy to state that I have never lost a case of erysipelas, although the duration and severity of the complaint have varied much. The *rationale* of the local application above mentioned must be purely protective and palliative, by excluding the irritating effects of the cold air, and not by excluding specific germs.

The latest researches prove that the schizo-

mycetes or streptococcus erysipelatosus is anaerobic, or flourishes where air is excluded, living in and upon the tissues affected. I may note the many methods of treatment recommended, such as compression, or ligatures applied above the seat of the affection, advocated by Velpeau; the application of a solution of nitrate of silver in the form of a ring around the redness (Higginbotham's method); the application of tincture of iodine, white paint, solutions of tannin, silicate of soda, used by Alvarenga, of Lisbon; the subcutaneous injection of carbolic acid or salicylic acid directly into the part, and the internal administration of quinine in large doses, as salicylate of ammonium, suggested by Dr. Barclay, of St. George's Hospital. These may all be good, but so satisfactory have been the results by the iron and the antiseptic anodyne externally applied, that I have had no reason to depart from that treatment. I earnestly look after the hygienic surroundings of the patient, and give eggs, milk, beef tea, and other stimulating and light diet. The disease may, however, pass into a stage when surgical treatment must be adopted. If simple bullæ or vesicles form, I relieve the tension by evacuating them, and dress the surface with tartrate of potash and iron lotion in the strength of 10 grains to the ounce of water. When sloughing and suppuration take place, I make free incisions; the pus and sloughs thus obtain a free exit; the separation of the mortified parts may be accelerated by the scissors. I then apply an antiseptic solution by means of the syringe or douche, dry the parts thoroughly, and dress with sublimated wood wool. The best antiseptic lotion is corrosive sublimate, one grain in five ounces of water, or nearly in the proportion of 1 to 2,000. Koch's solution, as it is now called, is the same as the old "M'Kenzie's" collyrium.

An important point which should not be overlooked in the treatment of erysipelas as well as in so many other affections, is the effectual clearance of the *primæ viæ* by a good purge, administered at the commencement of an attack. If erysipelas assume a typhoid form, alcoholic stimulants are strongly indicated. Infantile erysipelas I treat on the general lines laid down, although the tincture of iron is not so admissible, owing to its griping tendency; acetate of iron is less irritating. When erysipelas commences in the throat, inhalation, or the steam atomizer, with some antiseptic, should be used. I watch carefully for œdema glottidis. If it does occur, tracheotomy is the only resource.—Robert Pollok, in *Glasgow Med. Jour.*

THE following were the fees as laid down by the New York County Medical Society of 1816:—Verbal advice, \$5 and upward; letter of advice, \$10 to \$15; ordinary visit, \$2; night visit, \$7; Midnight, \$25 to \$30.

MEDICAL NOTES.

The remedy for *weak heart* is amyl nitrite.

Prof. Bartholow states that he believes nicotine, if rightly used, will prove to be our best remedy for *hydrophobia*.

Prof. Parvin, for all plastic operations on the *female genitals*, uses silver wire in preference to either silk-worm or cat-gut.

Dysmenorrhœa and sterility are not half as well explained by antelexion as by an existing endometritis or metritis.—Parvin.

Prof. Bartholow insists that in *subacute rheumatism*, no remedy is comparable to Tinct. ferri chloridi, especially if in an anæmic subject.

From an antagonistic standpoint, of all remedies proposed for remedial treatment of *tetanus*, none are comparable to nicotine or the preparations of tobacco.

A mixture of collodion, 15 parts, corrosive sub. 1 part, if applied to small, superficial *birth-marks* is stated by Professor Gross to act very nicely and effectively.

Anteflexion with mobility, in a virgin, is a physiological condition, and can only be called flexion when the uterus becomes immobile and bound down by adhesions.—Prof. Parvin.

For the *irritative fever of consumption*, Prof. Da Costa strongly advises the use of small doses of aconite. He claims it is a remedy of much value, and but little known to the profession in general.

Prof. Gross advises that a radical cure for a large *hydrocele* should not be undertaken at once. Evacuate its contents, and, when it has again attained a small size, again evacuate and resort to one of the radical means of cure.

Dr. Hunt, at the Pennsylvania Hospital, stated that he considered the treatment of *internal hemorrhoids* by carbolic acid a good procedure. He uses about four drops each of pure carbolic acid and glycerine, and injects one tumor at a time.

Prof. Gross states that he believes subiodide of bismuth is destined to replace, to a great extent, iodoform in the *antiseptic treatment of wounds*. It is being extensively used at the hospitals, and, as yet, with none but most gratifying results.

Prof. Parvin states that the best treatment for *chronic mastitis*, if the patient object to the radical operation, is firm compression by means of pressed sponge and a bandage, which is occasionally to be slowly saturated with carbolized water.

For the hygienic treatment of *epilepsy* Prof. Da Costa sums up as follows:—

Keep the head cool, the bowels open, and the

temper cheerful. It is probably better to allow no animal food at all; the best diet is one exclusively of milk and vegetables. Be most particular about the diet. Change the surroundings and scene if possible, and lead an open-air life.

A case of *sciatica*, following exposure and of nine weeks' duration, was treated by Prof. Da Costa in the following manner: Apply a strip of blistering plaster in the course of the nerve, and administer—

R. Tinct. colchici seminis, . . . gtt. xv.
 Potassii iodidi, gr. x.
 Tinct. zingiberis, gtt. x.
 Syrup.,
 Aquæ, āā q. s. ad f ʒ ij. M.

Sig.—Take with water three times a day between meals.—*Col. and Clin. Rec.*

A NEW EYE SPECULUM.

The ordinary speculums are perfectly efficient in exposing the eyeball, but as they all have some part which enters within the margin of the eyelids, their use is necessarily attended with discomfort to the patient, which in slight operations, such as removal of foreign bodies from the cornea, or puncture of the cornea, is often more than the pain of the operation itself. For such cases the author has used the speculum shown in Fig. 1 for several years, and now brings it under the notice of the profession. It consists of a piece of stout wire bent into an oval ring at one end and a handle at the other, as shown full size in the figure. Fig. 2 shows on a reduced scale the mode

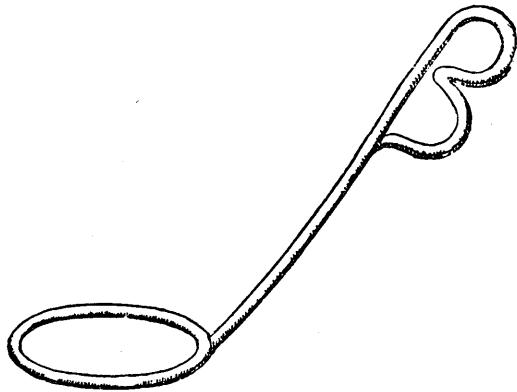


FIG. 1.

of application for removing a foreign body, the operator standing behind the patient's head. The ring is applied outside the lids and near their edges. The lids are then, if necessary, pulled more open by the fingers of the other hand. The pressure of the speculum gives it such a good hold on the skin that even the most intense spasm of the

sphincter is powerless to close the eye. The pressure to a great extent fixes the eyeball, and also renders the cornea tense, which is a great advantage, especially in puncturing the cornea. In re-

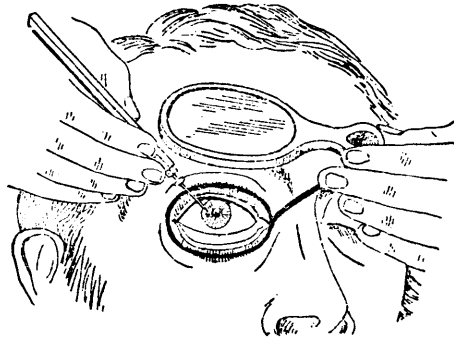


FIG. 2.

moving a foreign body it is usual and perfectly easy to hold a magnifier in the same hand as the speculum, but this may be dispensed with if preferred.—*Lancet.*

SUBJECTIVE SYMPTOMS AND OBJECTIVE CONDITIONS IN DYSPEPSIA.—JAWORSKI published in the *Wiener Med. Wochenschrift*, last December, a very valuable paper showing the results of a long and careful investigation of this subject which he has carried on. The conclusions which he reached are as follows:

1. Good nutrition speaks in favor of the localization of the disease in the stomach, and excludes implication of the small intestines.
2. In great anemia, and even cachexia, with idiopathic disease of the stomach, hyperacidity of the stomach is very probable. Seventy-five cases of anemia were found in 188 dyspeptics, and sixty of these had great hypersecretion. Hypersecretion is generally accompanied by anemia, and in some cases of very grave anemia the digestive power of the juice was remarkably great.
3. Vomiting occurs usually in persons having no deficiency of HCl.
4. With great tenderness of the epigastrium deficiency of acid is not probable.
5. Preponderance of nervous symptoms is usually accompanied with increased digestive mechanism. Of 188 cases, in 99 there was a preponderance of nervous symptoms over those referred to the stomach, in 62 of these there was hyperacidity or hypersecretion, 23 a normal secretion, 8 deficiency of acid, and in 6 total failure of secretion. In 9 cases remains of food in the stomach after the normal period called forth severe nervous symptoms. The consideration of nervous symptoms, to the neglect of the internal examination of the stomach, is very likely to mislead.
6. An excessive feeling of thirst almost always points to great hypersecretion, which is usually combined with

mechanical insufficiency or ectasia. 7. Sour eructations point to an acid condition of the stomach. 8. In excessive eaters who seem to have a false appetite, hyperacidity and hypersecretion with mechanical insufficiency, or moderate dilatation, is met with. The state of the appetite gives no guide to the state of the secretion or mechanism of the stomach, for of 38 persons in whom there was an absence of appetite, 16 had an excessive and continuous HCl secretion. 9. Cramp of the stomach is generally accompanied by great hyperacidity. 10. The feeling of aching in the stomach points to an extensive irritation of the stomach by hyperacid secretion, and the presence of numerous cell nuclei. 11. In slight degrees of dyspepsia a high degree of acid hypersecretion is not probable.—*Med. Chron.*

HEREDITY OF CANCER OF THE BREAST.—In the report of the Committee on Collective Investigation of Disease, presented at the last meeting of the British Medical Association by Henry T. Butlin, one of the questions discussed was that of heredity. After a careful study of the data accumulated, Mr. Buntlin concludes as follows: "I confess that when I first proposed the subject of the inheritance of cancer, for collective investigation, it was with a very small belief in the reality of inheritance, and with a strong belief that the inquiry would result in such a failure of evidence as to diminish largely the impression which prevails that cancer is due in part to the influence of inheritance. I am forced to own that the mass of evidence which has been accumulated by the inquiry has led me to take a different view. The number of instances in which there is a history of cancer in the direct line of descent, the manner of the relationship in those families in which more than one of the patient's relatives were the victims of cancer, and the very strong probability that the case is throughout under rather than overestimated, are, to my mind, proofs which cannot be resisted. Compare this evidence of the influence of inheritance with that on which some of the undoubted causes, whether exciting or predisposing, rest, and the balance is largely in favor of inheritance. What is more certain than the predisposition of the breast and uterus to cancer, yet probably not more than one in fifty (2 per cent.) of the adult women who die, dies of cancer in the breast or uterus. Injury is admitted on all hands to be the cause of cancer, yet Gross finds that only about 11.70 per cent. of the large number of patients in his collection attributed the occurrence of the disease to injury. Our returns show that there was a history of cancer in the direct line of descent in 20.60 per cent. of the cases; and, if only the fathers and mothers of the cancerous patients are considered, that there was even then a percentage of no less than 16.84.—*Br Med. Jour.*

THALLIN IN TYPHOID FEVER.—The introduction of such drugs as "kairin," "antipyrin," and "antifebrin" has somewhat diverted attention from a very powerful antipyretic agent—viz., thallin. Professor Ehrlich lately presented to the Clinical Society of Berlin the results of some researches he has been making with this last named agent, especially in the treatment of typhoid fever (*Munch. Med. Woch.*). From experiment, he found that after administering the drug to animals it was not retained in the nerve centres, but mostly in the fatty tissue of the body. He also found that there was a marked difference in toxic action, according as to whether it was administered by the mouth or subcutaneously, the greater inertness of its effect in the former case being attributable to the hindrance to absorption from the presence of intestinal contents. The lesions induced by a toxic dose comprise fatty degeneration of the kidneys, necrosis of the salivary glands and pancreas, and hemorrhagic infarcts in the pyramids. The chief action of thallin is antipyretic, but it is capable also of moderating inflammation. As regards typhoid fever, it was administered by Ehrlich in two different ways. The first plan consisted in commencing with doses of 0.06 gram. every hour, and reducing the dose to the minimum required to give any effect. The other plan was to commence with a minimum dose, and increase it until an effect was produced, and then to continue the prescription at the dose thus attained. The action of thallin is especially noticeable in its effect on the sensorium and general condition of the patient, who presents the appearance of convalescence, whilst the splenic swelling and roseola are still present, and if the drug be discontinued the temperature will rise again. It is not therefore surprising to learn that whereas the twenty-eight cases treated by bathing, the average stay in the hospital was thirty-seven days, of seven cases treated by thallin (minimum doses) the duration of treatment was forty-seven days and cases on a scale of progressive doses thirty-eight days. However, Professor Ehrlich claims advantages for the drug in the absolute control it exerts over pyrexia, and the sense of well being enjoyed by the patient. There were no intestinal hemorrhages in these cases, and no instance of perforation. The kidneys were not affected, but sequelæ in the form of hyperæmia and œdematous swellings seem due to the use of the drug. It was not thought that thallin had any specific action against the typhoid bacillus, but it did seem to limit the degree of intestinal ulceration. Prof. Ehrlich considers it to be on a level with the bath treatment. Dr. Frankel pointed out that if the statement was correct that thallin is not found in the nerve centres, its action in reducing temperature was rather inexplicable. He had exhibited it in increasing doses, but could not

say that the patients experienced any special benefit attributable to the diminished fever. Dr. Guttman was not favorably impressed by its use, and had noted the production of rigors.—*Lancet*.

SOME POINTS IN THE PATHOLOGY AND TREATMENT OF FEVER.—At a meeting of the Manchester Medical Society, Dr. James Niven read a paper on the above subject. The points considered were formulated in four propositions:

1. Self-protective fevers tend to become milder the longer they are settled in a community. The protection conferred was regarded as an adjustment of the tissues, which would be handed down from generation to generation in the case of any disease which was spread over the greater part of a community. In co-operation with this adjustment is the elimination by death of people especially liable to the disease. In opposition to it is the tendency of children to take disease in the same manner as the parent. As illustrations were considered typhoid fever, measles, small-pox, yellow fever, and syphilis.

2. The second proposition was that the phenomena of fever are probably due in the main to chemical poisons. It was attempted to be shown that chemical matters secreted by the fungi or dead fungi, were sufficient to account for the phenomena of fevers, while in some disease it was taken as proved that only chemical poisons were admitted into the circulation.

3. The third proposition was that the nervous system is the liberator and controller of heat and fever. It was contended that a large amount of heat was due to metabolism of muscles, but the experiments of Pflüger and Samuel had shown that muscle, under normal circumstances, underwent this metabolism as the effect of nervous impulses. While admitting the vaso motor system and heat inhibitory centres as probable causes of some pyrexial conditions, it was suggested that excitation of the anterior cornual cells in the spinal cord, and of their congeners in the medulla and brain, would better explain the pyrexial conditions of such fevers as typhoid and typhus. Reasons were given for regarding the figures arrived at by Dr. Burdon Sanderson, from calculation of the excreta in health and in fever, as showing an increase in fever of heat requiring to be eliminated.

4. The fourth proposition was that the proper treatment of fevers is partly dietetic, partly calnitive. The treatment on these lines was sketched. Easily assimilable materials, such as peptonized meat and milk, and sugared fruit are necessary to maintain the strength, to prevent complications and tropho-neuroses; perforation in typhoid may be regarded as in part a tropho-neurosis. Calnitive treatment, such as a skilful nurse, free from fuss, removal of irritations, and antipyretic treat-

ment, are necessary for the same objects. Antifebrin was regarded as, perhaps, the best antipyretic.—*Brit. Med. Jour.*

OIL OF SANDAL-WOOD IN FETID BRONCHITIS.—In a clinical lecture on a case of foetid bronchitis, simulating abscess of the lung, Professor Da Costa showed a male patient of 32, who had been admitted into the hospital about a month before for cough and profuse expectoration, sometimes bloody and offensive. He had emaciated greatly, and complained of poor appetite, diarrhœa, vomiting, frontal headache, and night sweats. Upon examination, some dulness on percussion was found about the middle of the left lung posteriorly, and moist râles and faint pectoriloquy could at times be obtained. The man had been in the hospital three months previously in a very similar condition, and so great at that time was the amount of the expectoration, containing masses of purulent matter, that the idea of abscess of the lung was entertained. He was somewhat benefited by treatment, and went out, only to return with the same symptoms: indeed, there was no evidence that they had ceased from the time that he was in the hospital. When he returned, there were found again the cough, fetid expectoration, nummular sputa, emaciation, sweating, a slight rise of temperature (100°), and pain in the left side. The expectoration amounted to a pint and a half in twenty-four hours, and was occasionally blood-streaked. No bacilli nor elastic tissue could be found in it. The patient was submitted to systematic treatment, and carefully-regulated diet. He was given carbolic acid, and subsequently terebene, by inhalation, and other agents; but none of these, tried and re-tried, gave any enduring results. Dr. Da Costa then placed him upon the oil of sandal-wood, at first five minims three times daily, and afterwards five times daily. The results were most striking. After about a month's treatment the expectoration almost ceased—falling to one drachm in twenty-four hours. The dulness at the lower part of the lung was no longer to be perceived, his breathing was better, the râles had disappeared, and there were no physical signs other than a little harshness of breathing at the point indicated. Dr. Da Costa did not think that in this case there was really an abscess, but bronchitis with dilatation and accumulation, simulating an abscess. He wished especially to insist on the value of the oil of sandal-wood as an agent acting decidedly upon the mucous membrane of the bronchial tubes. Its effects upon other mucous membranes, as in the genito-urinary tract, first led him to use it for the condition of bronchorrhœa. It had afforded great relief to such cases in his hands. He might say that the present case was cured by the oil of sandal-wood.—*Phila. Med. Times*.

NITRITE OF AMYL IN AFTER-PAINS AND DYSMENORRŒA.—Mr. F. W. Kendle, of South Molton, reports the case of a lady who complained to him, the first day after delivery, of excruciating after-pains, which she declared were worse than any she had experienced during the labour. The womb was found firmly contracted; loss was slight; and no clots larger than beans had been passed. As several hours must necessarily have elapsed before any medicine could have been sent her, Mr. Kendle broke a couple of nitrite of amyl capsules (four grains in each), into a smelling-bottle, and directed the patient to take two or three deep inhalations when she felt a pain coming on. The effect was simply magical: the pains were immediately relieved, and shortly ceased altogether, the patient being soon able to take some refreshing sleep. She made an excellent recovery. He has since tried the same remedy in two other cases of less severity, with similar results. He has also found the drug invaluable in the sickness of pregnancy, and in obstinate cases of dysmenorrhœa. Inhalation seems to be more certain and lasting than the internal exhibition of the drug. He strongly recommends this as a simple and efficacious plan of treatment.—*Lancet*.

DECOCTION OF COTTON-ROOT AS A HÆMOSTATIC.—Having repeatedly tried cotton-root, in form of a fluid extract, as a uterine hæmostatic without marked beneficial results, our conclusion was that the remedy was without any great value. The experience of Dr. Garrigues, Clinical Society of the New York Post-Graduate Medical School and Hospital, proves that the drug given in the form of decoction produces markedly beneficial results. The following are his directions for preparing and administering it: Three heaping teaspoonfuls of the powdered root are boiled in a pint of water for fifteen minutes; after cooling, the preparation is strained; one-third of the decoction is taken in the forenoon, another in the afternoon, and the last at bedtime.

Dr. Garrigues has used the remedy in 139 patients, and in the great majority of cases with more or less decided benefit. He has found that it checks the bleeding from uterine fibroids, and also lessens the associated pain; while in sarcoma and carcinoma it limits, or altogether suspends, for a time, hemorrhage. He insists that the remedy should be used in the form of a freshly-made decoction, and states that it fails to produce any benefit in about one in ten cases, which is certainly not an unsatisfactory showing.

The attention of the profession will doubtless be directed anew to the use of this remedy by the important and apparently conclusive results obtained by Dr. Garrigues, who, as is well known, is one of our most capable and conscientious observers.—*Med. News*.

TREATMENT OF BOILS BY INJECTIONS OF CARBOLIC ACID.—Dr. Bidder, of Paris, has described a method of treating furuncles by parenchymatous injections of carbolic acid. If the boil is a small one, he gives one injection of a few drops of a solution of carbolic acid (2 per cent.); if it is of medium size, two injections are given, the half or the whole of a Pravaz-syringeful of the solution being used on each occasion. In the case of large furuncles, for example, half the size of a man's hand, Dr. Bidder injects at four different spots the contents of four Pravaz-syringes half or wholly filled with a solution of 2 per cent. of carbolic acid. These injections are given only once. This treatment is strikingly successful. There is some smarting at the seat of injection at first, but the pain soon disappears, and the next day there is a marked improvement in the patient's condition. The inflammatory swelling subsides very quickly, and in eight or ten days even the largest furuncle is dispersed. By this plan no unsightly scars are left, a circumstance, which in many cases is of considerable importance. The success of the treatment is probably to be accounted for by the fact that either the microbes which cause the disease are killed, or the medium in which they flourish is destroyed.—*Brit. Med. Jour.*

NITRO-GLYCERINE IN THE TREATMENT OF EPILEPSY.—A girl, fifteen years of age, of bad family history—her mother and grandmother having died insane,—had been a sufferer from epilepsy for two years. Her general health was good and her menstrual functions properly performed.

I saw her first November 1, 1885; she was then having convulsions almost every day, and sometimes twice in twenty-four hours. The bromides had been faithfully tried, with but partial relief. She was at once placed upon nitro-glycerine, one drop of a one per cent. solution being given her three times a day. She had a convulsion on November 9, 1885, and did not have another until November 1, 1886—the nitro-glycerine having been continued without intermission during the whole of this time. On November 13, 1886, I saw this young lady again; she had then had two slight convulsive seizures and had on several occasions been "dazed," as she expressed it. The dose of nitro-glycerine was increased to one drop and a half three times a day, and she has had no return of either the convulsions or the "dazed feelings" since.

In view of the fact that the *hygienic* management was precisely the same before and during the administration of the nitro-glycerine, it seems fair to attribute the benefit in this case to its use.

In another case the convulsive seizures were kept under control for some weeks; but it was impossible to induce the parents of the patient in this case to persist in the use of the remedy, they

having been taught that epilepsy was incurable. In several other cases which have fallen under my observation there has been improvement, but there has not yet been a sufficient interval of time since the treatment was commenced to say what the ultimate result will be.—*N. Y. Med. Rec.*

COCAINE DOSAGE AND COCAINE ADDICTION.—The author, upon data derived from a large personal experience and from an extended correspondence on the subject, concludes as follows:

"I think cocaine for many, notably the large and enlarging number of opium and alcohol habitués, the most fascinating and seductive, dangerous and destructive, drug extant; and, while admitting its great value in various disordered conditions, earnestly warn all against its careless giving in these cases, and especially insist on the great danger of self-injecting, a course almost certain to entail added ill.

"To the man who has gone down under opium, and who thinks of taking to cocaine in hope of being lifted out of the mire, I would say, 'Don't,' lest he sink deeper. I have yet to learn of a single instance in which such an effort reached success; but know many cases where failure followed, or, worse, cocaine or coca-morphia addiction. The need of caution against free and frequent using obtains in other cases, for there may come a demand for continued taking that will not be denied. Cocaine can be toxic, sometimes deadly, in large doses. It may give rise to dangerous or even fatal symptoms in doses usually deemed safe. The danger, near and remote, is greatest when given under the skin. It may produce a diseased condition—in which the will is prostrate and the patient powerless—a true toxic neurosis, more marked and less hopeful than that from alcohol or opium. Such being my belief, I regard Dr. Hammond's statements mistaken, and his conclusions rash and dangerous."—*Med. Reg.*

INFANTILE CONSTIPATION.—A very successful remedy for this is podophyllin, in small doses; iridin may be combined with it with good effect. Make a tincture of the following: Podophyll. resin, gr. viij.; iridin, gr. v.; spt. ammon. arom., ʒj. Digest for several days, and filter. From one to two drops of this may be given at bedtime on a small piece of loaf-sugar, or the dose may be combined in mixture alone with syrup of orange. This is the dose for a child of one year and under.—*Med. Rec.*

TREATMENT OF WORMS.—Chloroform has been found very efficient against tape worms. Doses of 30 drops had been given every twenty or thirty minutes. Troublesome cardiac symptoms can be avoided by giving much smaller doses (a few drops) every few minutes for a few times. Thompson

successfully prescribed chloroform ʒj (by weight) and simple syrup ʒj, to be given in three doses at intervals of two hours.—*London Med. Rec.*

A SUDDEN BLEACHING OF THE HAIR, which has been known to take place almost instantaneously from fright, must consist in withdrawing of the protoplasm of the hair back into the blood-vessels of its bulb together with the pigment, somewhat as the protoplasm of a dying leaf which whitens on the twig migrates through the cells of that leaf to the branch which sustains it. And this process is better seen yet in the slow discoloration of bulbous plants like the onion and the turnip during their first year while ripening in the garden.—*Am. Jour. of Biology.*

One day Frederick the Great said to his physician, "How many men have you killed in your practice, doctor? Speak truly!" and the doctor answered, "Sire, almost three hundred thousand less than your majesty!"

THE Senates of the Trinity Medical School, Toronto, the Western Medical College, London, and of the Royal College of Physicians and Surgeons, Kingston, have had under consideration matters appertaining to the new medical school which it is proposed to found in connection with University of Toronto. The new school appears to be a revival of the old Toronto School of Medicine, The principals of it conceived the idea of not only affiliating with the provincial university, but of making use of its splendid equipment, In all the discussions that have occurred in regard to college federation it was contended that professional education should not be facilitated at the cost of the people, and yet, unless we have a misconception of the latest college scheme, that is just what is now being proposed. It is stated that the standard of education in connection with the new medical school will be higher than that of any medical school in the country, and towards it certain professors of the university will contribute without extra fee from the students so far as they are concerned. The people in that event would be paying for instruction which should be borne by those expressly benefitted by it.

That the medical colleges of Ontario—Trinity, of Toronto, the Western, of London, and the Royal of Kingston—will protest vigorously against the scheme of the Toronto School of Medicine we have no doubt; and we cannot believe that to them the minister of education will turn a deaf ear. Schools for the instruction of students in professional subjects have no claim upon the public bounty, and assuredly there is no call for one being assisted into life and usefulness at the expense of the others and of the whole people.—*Brit. Whig.*

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REPORT OF THE BRITISH COMMITTEE ON THE PASTEUR SYSTEM.

In April, 1886, a committee, consisting of Sir James Paget, Sir Joseph Lister, Sir Henry Roscoe, M. P., Dr. Richard Quain, Dr. Lauder Brunton, Prof. Burden Sanderson, and Dr. George Fleming, with Mr. Victor Horsley as Secretary, was appointed by the then president of the Local Government Board to enquire into M. Pasteur's treatment of hydrophobia. On June 28, 1887, this committee presented its report to the British Parliament. The time occupied in the investigation has been long, but when we consider the magnitude and importance of the work necessary to be performed before a satisfactory report could be framed, it is rather surprising that it has been accomplished with so much expedition.

The evidence which was at the committee's disposal at the Pasteur institute was first examined, and then the results said to have been attained were verified by independent investigation. The various members of the committee have worked with great assiduity since their appointment, the work being divided, as follows:—Sir Henry Roscoe, Dr. Burden Sanderson and Dr. Lauder Brunton studied the process in Paris. After their return, Mr. Victor Horsley performed a number of experiments, and the other members of the committee came to a conclusion on the facts submitted to them.

The opinions (formed mostly in ignorance) of

medical men all over the world, have been so diverse on this subject, that it is a matter of extreme congratulation that a definite conclusion has been arrived at by such a body of men as those mentioned above, and this after mature deliberation, and after having eliminated, as far as possible, all sources of error or doubt in their experiments and investigations. The original claim of Pasteur, that he could, by inoculation, protect a man or animal from the risk of contracting hydrophobia, after having been bitten by a rabid animal, has been fully tested, and the committee reports that "it may be deemed certain that M. Pasteur has discovered a method of protection from rabies comparable with that which vaccination affords against infection from small-pox."

The importance of this endorsement of Pasteur's views can scarcely be estimated. It shows that this new method of inoculation may be used to protect men and animals against the most potent virus.

The more important matter of the prevention of symptoms in persons already bitten, is unfortunately, not so definitely understood; of course, the conditions under which such patients came under treatment, vary widely. Thus, the questions whether the dogs inflicting the wounds were really rabid, the number and extent of the wounds made, the fact of some protection against the introduction of the virus by clothing, the amount of bleeding which occurred, the difference in the intensity of the virus of different species of animals, and various other factors, rendering a definite conclusion almost impossible at the present time. But the whole evidence, which has been sifted most carefully, goes to show that it is certain that the treatment of Pasteur has prevented the occurrence of the disease in a large number of those who had been bitten, and who, without such treatment, would have died of hydrophobia.

As to the question of the danger arising from inoculation, which Pasteur's opponents have held to be as great as that of the bites of rabid animals, the verdict goes entirely in favor of Pasteur, and that, while under the intensive process at first employed, there were some untoward consequences, "the method now employed is free from serious danger." The practical outcome of the report is that, by stringent police regulations, the disease may be greatly diminished, and the committee

suggest the following as presumably effective :— (1.) The destruction of all wandering, ownerless dogs. (2.) The discouragement of keeping useless dogs, by taxation or other means. (3.) Prohibiting importation of dogs from countries where rabies is prevalent, or the imposition of quarantine. (4.) Compulsory muzzles in districts where rabies is prevalent.

OUR MEDICAL COUNCIL.

In one of our city dailies, following the list of members of the medical faculty of Toronto University, it is suggested that the degree of M.D. of Toronto University be accepted as a licence to practise, thus ignoring the most vital *raison d'être* of our Council. Can anyone suggest for a moment that the graduates (who are to be) of Toronto University, shall be set down, as so far above those, of say, Queen's or Trinity, that they shall be granted immunity from passing the Council examinations? Such suggestions are utter nonsense. Grant such power to Toronto, and every other university in the Province *must* insist on equal rights, and our Council's "occupation's gone." It is a good thing to know that the standard of the new (?) school is to be so high that we shall need no further guarantee of the thoroughness of the training given to their students. Modesty is an excellent thing, and we admire the very modest tone which pervades this article, which was, we assume, inspired by one of the new faculty. This new faculty is to be *facile princeps*, though its members have been named only a few days ago.

Such a concession to Toronto University would simply have the effect of throwing us back to the days before the Council was called into existence. There being no central examining body, or at least each University having the power to grant a licence to practise, cheaply won degrees would naturally follow, for wherever degrees could be most easily obtained, there would the great bulk of students find their way.

"The Medical Council," says the writer of this article, "did excellent work *in the past*," but in view of the great facilities which the medical faculty of the Provincial University will have of imparting a high order of medical education, the students of the latter ought to be exempted from

further examination than that provided by their own college.—(The Italics are our own).

This would be equivalent, as we understand it, to the entire subversion of the Council, a proceeding which we are sure will meet with the almost unanimous opposition of the profession. Our Council was not, when first instituted, a body of which we could be proud, and the old adage of "give a dog a bad name," etc., is quite as true of a corporation as of an individual; yet, so high has been the character of the men who have composed the Council for some years past, and who now compose it, that they have succeeded in gaining the respect and confidence not only of the profession, but of the public at large. It has done and is now doing an excellent work, a work which the profession cannot afford to have discontinued, and we are sure that the profession will see that it will not be snuffed out in any such free and easy way as is suggested by the writer of the article above alluded to. The questions of June examinations, and of the absorption of the Council (as examiners) into the new faculty, as suggested in the same article, are important ones, but space forbids any further reference to them at present.

THE ONTARIO MEDICAL LIBRARY ASSOCIATION.

A number of prominent medical men in Ontario have recently devised a scheme for the formation of a Medical Library for the Province. The idea is a good one, and, we believe, requires only to be brought before the notice of the profession to receive a hearty support. The object is that a reference Medical Library be formed, not for Toronto, but for the Province, and Toronto being the most central point, has been chosen as the most convenient situation for this much-needed institution. The proposed scheme is that a joint stock company be formed, with a capital of \$10,000. The shares are to be \$5 each; and it is proposed that the payments shall be extended over a period of five years. So far, about \$2500 has been subscribed, and the organizers feel much encouraged by the many proofs they have already had of the feasibility and popularity of the scheme. It is hoped that the list of books may, from time to time, be augmented by donations from physicians, who

may leave their libraries to the institution, as well as from publishers and authors. Already has the veteran physician, Oliver Wendell Holmes, in answer to a letter addressed to him by Dr. Powell, of Toronto, signified his intention of presenting a copy of his medical works, bound in any way the trustees may suggest.

There are in Ontario over two thousand practising physicians, and they are, as a rule, reading men, or at least the number of reading men among them will, we believe, compare favorably with that of any other two thousand practitioners in the world. Now, such a scheme as we have outlined, will provide a convenient reference for medical men all over the Province, a matter of great importance to every practitioner, and especially to those who are preparing papers, etc. It is hoped that within a year from the present time, a library of from four to five thousand volumes will be in existence here, and that the principal medical journals will be accessible to all wishing to consult them. It is very gratifying to know that the Ontario Medical Council has so heartily entered into the scheme and have shown the appreciation they have of such an institution, by renting to the Association, at a nominal figure, a room fitted with shelving, etc. The generous spirit in which they have thus met the organizers will, we feel certain, call forth sentiments of approval from the whole of the profession throughout the Province. The following are the officers: President, Dr. J. E. Graham, Toronto; Vice-Presidents, Drs. Arnott, London; Burns, Toronto, and Henderson, Kingston; Treasurer, Dr. McPhedran, Toronto; Curator, Dr. Powell, Toronto; Secretary, Dr. D. J. Gibb Wishart, Toronto. Trustees, Drs. Mullen, Hamilton, Pyne, O'Reilly, and Nevitt, Toronto.

BRITISH MEDICAL ASSOCIATION.—A branch of this well-known and influential Association has been formed in Halifax, Nova Scotia. It is to be called the Nova Scotia Branch of the British Medical Association. This Association's branches now cover the United Kingdom, and exist also in India, Ceylon, Australia and other colonies. A branch has been lately started in Bermuda. It numbers, all told, some 12,000 members. It has a parliamentary committee whose duty it is to supervise all legislation interesting the profession,

and its voice has lately been heard with effect in altering and amending the new warrant regarding relative rank in the Army Medical Department. By meetings of local branches and an annual general meeting, held in different cities of the United Kingdom, it draws medical men together, promotes *esprit de corps* amongst them and, by concentrating their voices, gives to the medical profession that influence in social and scientific matters to which that intelligent and benevolent body is justly entitled. This is the first branch of the Association formed in North America. Dr. Tobin, of Halifax, has been earnest in promoting its formation, and, on Monday night, at a large professional meeting, held at his residence, it was formally organized, as follows:

President—Deputy-Surgeon-General McDowell, C.B., A.M.S. *Council*—Fleet Surgeon Swetenam, Royal Navy; Dr. Slayter, Dr. Black, Dr. Wickwise, Surgeon-Major Bolster, A.M.S.; Dr. Tobin, *Hon. Sec.*

BROWN BREAD.—Dr. Geo. D. Hays, of the New York Post Graduate School, writing in the *Quarterly Bulletin*, says: "We have long been accustomed to hear that many of the evils of modern life owe their origin to our choice of *white* flour. That this is not so, an examination of the wheat-berry will show. This has five coats—an *epi*-, *meso*-, and *endocarp*, an *episperm*, and a *tegmen*. The three outer ones have no value whatever as nutriment. Within the *episperm* is a layer of *gluten-cells*, chiefly *albuminoids*, and, finally, in the *endosperm*, which constitutes the bulk of the grain, we find *starch* mixed with *albuminoid* cells. In the old process of *milling*, the *perisperm* (the part within the *episperm*) was, on account of its close attachment to the inner husk, largely carried away, leaving the bolted flour the poorer for its loss. Hence the *vegetarian*, *Sylvester Graham*, whose name is applied to bread made from unbolted flour, was correct in his time in saying such bread contained the most nutriment. The present 'gradual reduction' process saves this portion of the wheat. The bran itself is composed of *woody fibre*, and contains absolutely no nutriment. It may have a mechanical value in those of a *constipated* tendency, but this is all. The wheat loaf and the *white flour* contain a much larger percentage of *phosphates* and *gluten* than the *Graham loaf* or *unbolted flour*."

CANADIAN MEDICAL ASSOCIATION.—The twentieth annual meeting of the Canadian Medical Association, will be held in Hamilton, on August 31st and Sept. 1st. The following discussions will be held:—On "Empyema," by Dr. McPhedran, of Toronto; "Subinvolution of the Uterus," by Dr. Eccles, of London; "Present state of Cardiac Therapeutics," by Dr. Stewart, of Montreal; Dr. William Osler, Philadelphia, "The Cardiac Relations of Chorea"; Dr. T. Wesley Mills, Montreal, "A Physiological Basis for Improved Cardiac Pathology"; Dr. Arch'd Malloch, Hamilton, "Report on Twenty Cases of Tracheotomy in Diphtheritic Croup"; Dr. William Gardner, Montreal, "A Year's Work in Abdominal Surgery"; Dr. Ryerson, Toronto, "Ophthalmic Epilepsy"; Dr. Buller, Montreal, "Headaches in Connection with Certain Ocular Defects"; Dr. Stirling, Montreal, "A Few Points in the Etiology and Treatment of Strabismus"; Dr. W. H. B. Aikins, Toronto, "The Detection of Typhoid Bacilli in Drinking Water." The surgical discussion will be opened by Dr. Grasset, of Toronto. The following are the officers of the Association for the present year:—President, T. K. Holmes, M.D., Chatham; President Elect, J. E. Graham, M.D., Toronto; General Secretary, James Stewart, M.D., Montreal; Treasurer, Charles Sheard, M.D., Toronto.

COCAINE POISONING.—The frequent reports of unpleasant and even fatal symptoms supervening upon the administration of cocaine in even small doses, should lead practitioners to exercise due care in the use of an agent, which, after all, seems to miss in its specific action about as often as it hits. The following case from the *Centrbl. Fur. Chir.* is one in point. The amount used was a grain and a-half, injected subcutaneously, in a patient *æt.* 57: Three-quarters of an hour after the injection the limbs of the patient were without sensation, the pupils were much contracted, and the pulse was rapid. Two hours later the pupils were abnormally dilated, the heart was beating violently, and the secretion of urine was very much increased. The skin was constantly cold, and there was difficulty in swallowing, with cessation of the secretion of saliva, heavy breathing, and complete sleeplessness for thirty hours. The attack returned after the main symptoms had passed away, first, after two days and again at the end of a week.

TREATMENT OF ANEURISM.—At the May meeting of the American Surgical Congress at Washington, Dr. T. G. Richardson read a paper (*M d. News*) on the Treatment of Aneurism, in which he gave a case of cure of aneurism of the femoral artery by suspending the limb flexed at right angles at the hip and knee. The tumor was of the size of a goose's egg, irregularly flattened, and wanted none of the characteristic signs of aneurism. The patient was a shoemaker, 55 years old, anæmic and delicate, and had contracted syphilis nine years before. On the first day the Dr. found an improvement in the condition of the tumor, coagulation had taken place in a few days, and in a week later the patient was dismissed cured. After a few months nothing remained to mark the site but a small nodule. The writer drew attention to the fact that no pressure was exercised on the tumor, and believed that the cure was entirely effected by flexion and suspension of the limb, and especially the latter, under the action of gravity.

ILLNESS OF PROFESSOR BILLROTH.—It will be of interest to our readers to know that the disease, which so nearly carried off one of the brightest lights in the profession was acute pneumonia, which supervened upon an attack of bronchitis. Von Bamberger and Nothnagel were in attendance. The patient received the greatest benefit from inhalations of pure oxygen which was prepared daily. Under this treatment (*Br. Med. Jour.*) the dyspnoea diminished, the pulse became stronger, and consciousness gradually returned.

NASAL HEMORRHAGE.—Plugging the posterior nares is not necessary, until the simpler method has been tried of firmly grasping the nose with the finger and thumb, so as to prevent any air from passing through the passage. Jonathan Hutchinson says he has never seen a hemorrhage from the nose which could not be checked by immersing the feet and legs up to the knees in water as hot as it could be borne.

MEDICAL men wishing to attend the coming International Congress, at Washington, should send their names to Dr. J. E. White, 185 Carlton St., Toronto, who is making arrangements by which a Pullman car shall be secured at cut rates, to run through to New York, Philadelphia and Washington.

REPEATED ATTACKS OF TYPHOID.—The Switzerland Correspondent of the *Brit. Med. Jour.* writes :

Prof. H. Eichhorst, of Zurich, relates the case of a woman who had three attacks of typhoid fever : one in 1882, another in 1884, and a third in 1886. A similar case, occurring in the person of a trained nurse, is mentioned by Dr. Herman Mueller, who, moreover, himself passed through four distinct attacks of the disease ; one of these was severe, but the others were only *typhus levis-simus*. Dr. Mueller's two brothers had each two severe attacks of typhoid fever in the course of a year ; one of them succumbed to a second attack.

FOR DETECTING URINE AT THE BEDSIDE.—The following should be useful for the above purpose. We take it from the *Canadian Pharm. Jour* :

1. Perchloride of mercury . . . 1 gramme.
Distilled water 20 grammes.
- M ft. solution.
2. Iodide of potash 1 gramme.
Distilled water 2 grammes.

Mix these two solutions, and then dip leaves of Joseph paper in the mixed solution, you then dry the paper and cut it into strips. To analyse a urine, all that is necessary is to plunge a small strip of the paper as prepared above and if the urine contains albumen, it will be at once precipitated. To render the urine acid the Joseph paper, can be prepared by impregnating it with a solution of citric acid.

THE ANTISEPTIC POWER OF VINEGAR.—Englemann (*Arch. Gen. de Med.*) has been experimenting upon the antiseptic power of vinegar, having used it in diphtheria with better results than were obtained from the use of any other agent. He used either ordinary vinegar or the officinal acetic acid, applying it by means of a brush, or as a gargle. In the latter case, he added double the quantity of water. He found that its power to prevent the growth of bacteria surpassed a 5% solution of carbolic acid.

GLEET.—Dr. Fred A. Smith, writing to the *Brit. Med. Jour.* says, he has used an injection of acid, nit. dil. \mathfrak{m} v. decoct. cinchon. flav. \mathfrak{z} i., with the happiest result. He stumbled upon the treatment through the mistake of a patient.

OL. PINI SYLVESTRIS IN CHRONIC BRONCHITIS.—A. W. Robson (*Brit. Med. Jour.*) notes some

excellent results in the treatment of chronic bronchitis with 5 min. doses of the above every 4 hours. Out of 94 cases, only one failed to improve in some of the symptoms. It sometimes produced scalding urine and frequent micturition.

DR. ROBIN, whose name is so familiar to medical men the world over, has recently been elected a member of the French Academy of Medicine. He is only 38 years old, and is the youngest member of that famous institution. It is stated that he has not lost a single patient out of 1200 typhoid fever cases.

SIR WILLIAM GULL, has lately made some severe strictures on the wholesale pouring in of drugs, so common by the general practitioner.

LARGE FEE.—Dr. Anderson Crichton, lately received a fee of \$40,000 for visiting and treating an Indian prince.

DR. KNIGHT of Dublin, in 1883, took 131.25 grs. of quinine in twenty-four hours. This is said to be the greatest amount ever taken. We doubt it.

DR. MORELL MACKENZIE, says that the German crown prince is cured.

Books and Pamphlets.

A PRACTICAL TREATISE ON OBSTETRICS. Vol. IV. Obstetric Operations. The Pathology of the Puerperium. By A. Charpentier, M.D., Paris. Illustrated with lithographic plates and wood engravings. This is also Vol. IV. of the "*Cyclopedia of Obstetrics and Gynecology*," (12 vols.), issued monthly during 1887. Price of the set \$16.50 New York : William Wood & Company.

William Wood & Company seem never to tire. The fourth volume of Charpentier's Obstetrics work is now before us, constituting the seventh part of the treatise, the merits of which it well sustains. Twelve chapters are devoted to obstetric operations of every imaginable form. The plates number no less than 192, showing every possible, with perhaps a few impossible, positions and presentations, the study of which may be rather more perplexing to the junior students than practically instructive. But though it may fortunately fall to the lot of only a trivial propor-

tion of obstetrics practitioners to encounter but a small per centage of the formidable cases depicted on the plates, it is well to know that such things have been, and thus to avoid the rash conclusions which impels young obstetricans to rush into print. It will be well, too, that the uninitiated should not be frightened by inspection of the luxurious armament of obstetric contrivances exhibited in the work, otherwise they may conclude that midwifery is an art quite beyond their hopes of achievement. It is, in Canada, a pleasing fact that the female pelvis and the foetal head are mutually well proportioned. Canadians have not yet reached that degree of cerebral development which demands so ample a brain-case as would seem to be the order of ossification, obtaining in the countries furnishing the specimens from which old world obstetricans derive their models. It will be well, however, that we stand on our guard, for serious changes must be brought about by the present murderous fashion of tight lacing and peg-top high-heeled boots. By the former the abdominal viscera are crushed and squeezed down into the pelvic cavity, so as to hamper the process of utero-gestation, and thus to induce very serious foetal malformations; and by the latter the centre of gravity and of bodily equilibration must be materially displaced, — witness the awkward hirpling gait of half the young ladies (for all now are *ladies*), who so earnestly strive to ornament our thoroughfares. Poor things! they transform themselves into wasps, but their stings are self-destructive. The compensation is that they will not capture large brained husbands.

WHAT TO DO IN CASES OF POISONING. By William Murrell, M.D., F.R.C.P., Lecturer on Pharmacology and Therapeutics in the Westminster Hospital, etc., etc. First American from the 5th English Edition. Edited by Frank Woodbury, M.D., etc., etc. Philadelphia: The Medical Register Co. 1887.

This work is deservedly popular on the other side of the Atlantic, and we have no doubt its success will be equally marked in America. The author goes to the point in a business-like way which is truly refreshing. The arrangement is admirable. Such sentences as, "The statement that the solution (apomorphia) should be made as required for use is all nonsense," will be encouraging to the medical man who does not carry about with him a laboratory, from which he may prepare "fresh" solutions of any known drug, at a moment's notice. In his preface the author says,

"This work has reached a 5th Edition, but it is not my fault, and I disclaim all responsibility in the matter." Altogether the work is excellent, and up to the latest date, and we can heartily recommend it to every practitioner and student of medicine.

A TREATISE ON DIPHTHERIA, INCLUDING CROUP, Tracheotomy and Intubation. By A. Sanné, Paris; translated by Henry Z. Gill, A.M., M.D., LL.D. St. Louis: J. H. Chambers & Co. 1887; pp. 656. Illustrated. Toronto: Hart & Co.

This work may be considered as the most complete which has yet appeared on diphtheria. The author has considered the history of the advances made in the study of this disease of some importance, and has gleaned the views held by the most celebrated observers since the time when Bretonneau wrote. The dread fatality of diphtheria, makes it a disease interesting in the highest degree to every practising physician. The number of deaths which have annually occurred and are still occurring from it, is altogether out of proportion to the amount of study which has hitherto been devoted to it. Whoever will read the present volume with care, and analyze the matter set down therein, must have clear ideas of the disease, and must be greatly aided in his attempts at staying its ravages. The 98 pages devoted to the surgical treatment are excellent, and will be highly appreciated by all who read them, as giving definitely the indications and contra-indications for tracheotomy, accidents, methods of overcoming difficulties, etc., matter which is simply invaluable to the inexperienced physician, and suggestive and full of thought to the most experienced. The translator has done his work excellently well, and we commend the work to the profession as the best we have yet seen on this subject.

DISEASES OF THE EYE. By Edward Meyer, translated by F. Fergus, M.B. Philadelphia: P. Blakiston, Son & Co. 1887.

This admirable work has at last been translated into English, and very well has it been done, by Dr. Freeland Fergus, of Glasgow. The phraseology is clear and concise, and free from the awkwardness of expression which so frequently characterizes translations. The matter is excellent and up to date. We can particularly commend the article on strabismus and its treatment. The engravings in the text are good and mostly new. The colored plates are from Liebreich's Atlas, and up to the high standard of that work.