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Original Contributions.

THE ORTHOPEDIC ASPECT OF DISEASES OF THE NERVOUS SYSTEM. No. 1. INFANTILE PARALYSIS.

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So large a proportion of the patients who seek the advice of the orthopedic surgeon are disabled through disease of the nervous system, either present at the time of consultation, or more commonly manifested in the existence of deformity or disability of the trunk or limbs, as to make both interesting and important a consideration of those special features of nervous diseases which come to be related to orthopedic surgery. The subject acquires additional importance because of the fact that those diseases of the nervous system which create orthopedic material are in the vast majority of cases manifested in infancy or childhood, and many of their unfortunate results, the disadvantages of which become increasingly apparent as the patient grows older, may be influenced for good or even entirely avoided by timely orthopedic interference. All of the following affections are encountered by those who devote their attention to the treatment of deformities: Infantile spinal paralysis, spastic paralysis, diphtheritic paralysis, obstetrical paralysis, pseudo-hypertrophic muscular paralysis, paralysis resulting from cerebral traumatism, hemiplegia, progressive muscular atrophy hereditary ataxia (Freidrich's disease), unilateral hypertrophy and atrophy, hysteria, chorea, neuralgia, laryngismus stridulus, idiocy, meningo-myelitis, cerebral and spinal tumors, locomotor ataxia, syringo-myelia, spinal



FIG. 1.

Plaster cast of foot of C. H., showing equinovarus, resulting from infantile paralysis.

concussion (railway spine), neuritis, trophic disturbances following injuries. In presenting in an orthopedic paper such a formidable list of abnormal conditions of the nervous system, a word of explanation is necessary to prevent misunderstanding. The ordinary management of these affections is for the most part entirely outside the province of orthopedic practice, yet all of them may and do come under the observation of the orthopedic surgeon; some of them because they are symptomatic of other conditions which he is called upon to treat, but more usually because of deformities or disabilities to which they may give rise, or because of the need of therapeutic measures that are more frequently and systematically employed in orthopedic practice than elsewhere. In the present



FIG. 2.

Result of operation on the foot shown in Fig. 1. The atrophy of the paralysed leg is well shown in this cut.

paper only a very brief consideration of one of these diseases will be undertaken.

Acute anterior poliomyelitis or infantile spinal paralysis is the disease of childhood which most commonly produces deformity. The trunk may be the part affected and some cases of lateral curvature of the spine undoubtedly arise from this source; or a paretic condition of the abdominal muscles may be manifested by pot-belly and lordosis. One or both upper extremities may be affected, in which case not only in the extremity itself is the defect seen, but frequently there is found a resulting atrophy of the scapula and shoulder which eventually induces deformity of the trunk. But by all means the most frequent disability result-

ing from infantile paralysis is found in the lower extremities. It is extremely rare to find this disability symmetrically distributed in the two lower limbs. Very commonly one extremity so far recovers as to present finally but little evidence of previous disease, while the other remains variously disabled. A marked characteristic of the affection is that the muscles are apt to recover, or remain paralysed, in groups. For example, a deformity very frequently met with is talipes equinus, or equino-cavus, resulting from a paralysis from which the muscles on the back of the leg have more or less fully recovered, while the anterior tibial group of muscles have made little or no progress from the condition in which they were left by the primary attack of poliomyelitis. (Fig. 1.) If the anterior tibial group have made greater advance toward recovery, then



FIG. 3.
Plaster cast of foot showing calcaneo-cavus.

there results a condition of calcaneus or calcaneo-cavus. (Fig. 3.) There is no variety of club-foot which may not be due to this disease, while flat-foot and "weak ankles" may often be traced to the same source. (Fig. 4.)

The mechanics of the various trunk deformities arising from infantile paralysis is a subject of much interest. If one limb has been paralysed in early life and has failed to recover or has recovered imperfectly, it does not grow equally with its fellow, and if the extremities are of unequal length the pelvis droops more or less on the side corresponding to the short leg, and the sacrum leans in the same direction. Built upon this slanting base, the lumbar vertebræ start upward, not perpendicularly, but inclined to the weaker side, producing a lumbar scoliosis followed by the development of secondary compensatory curvatures. Careful examination of our cases of lateral curvature has convinced us



FIG. 4.
Extreme flat-foot caused by infantile paralysis.

that this is a very common cause of the deformity. There is no doubt, too, that deformities of the trunk are often due to direct paralysis of the trunk muscles: those of one side being weak, while those of the opposite side are vigorous, an unbalanced state results. Of more importance than the paralysis of the trunk muscles is the retardation of growth of the paralysed side. This, which is so constantly observed when the paralysis affects the extremities, operates with the same certainty when the trunk is the part affected; consequently the development is asymmetrical.

The degree of recovery ultimately attained in these cases depends less upon the medicinal treatment employed than upon the severity and extent of the lesion in the spinal cord. In cases of poliomyelitis some palsy always remains, but recovery may be almost perfect. "Very little change need be expected in the first few weeks of the disease, but there is reason to hope that those parts which show any improvement within the first few weeks or months after the onset of the disease will recover power before long, and only those parts will remain permanently paralysed which after months show no signs of improvement." (Sachs: Nervous Diseases of Children, 1895, p. 307.)

More or less progress toward recovery is likely to continue for a period of about two years independent of treatment. After the acute stage of the disease has passed, the most important thera-

peutic agency is found in the natural functioning of the affected part. If the lower limbs can be used for locomotion without the use of apparatus and without inducing deformity, it is important that they should in that way receive necessary exercise by which restoration of power will be greatly aided. Concurrently, massage and electricity may be employed, especially the former.

If an arm be affected the child should not be allowed to let this member lie idly by the side, but should by systematic discipline, and if necessary by confining the other arm, be compelled to try to use it. If the lower extremity be unable to bear the weight of the body and serve properly in locomotion, or if the use of it induces

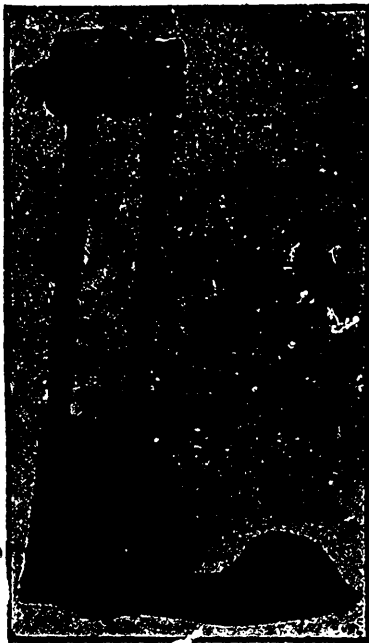


FIG. 5.

Appliance to be worn in bed to prevent recurrence of deformity of the foot after operation.

deformity, then apparatus, so employed as to afford the needed support, with only so much constriction and pressure as are unavoidable, may supply the lack and should be early employed, that the functioning of the affected part may not be unnecessarily delayed.

While it is true that a large proportion of the deformities resulting from infantile paralysis require nothing further than training, combined if necessary with the use of mechanical appliances, to secure for them the greatest attainable degree of benefit, yet a considerable number of cases, especially those of older children and adults, require operative procedures. The fact should never be lost sight of, however, by those who have to do with the early treatment of poliomyelitis that many of the deformities that result from this disease, and which if neglected may eventually require operation, can be entirely prevented by the intelligent use of mechanical means. When operation is called for there should be no hesitation in making all necessary tenotomies, fasciotomies, etc., required to effect correction of the deformity. After operation the parts should at once be put into a normal position, or perhaps even super-corrected, and so maintained by fixed dressings till healing occurs. Afterward, mechanical treatment of some kind is nearly always needed, and neglect to use it is almost certain to be followed by a return to the condition present before operation. Cases are constantly coming under notice which have been operated upon in the hope of correcting deformity, in whom much of the expected advantage has been missed, largely because the mechanical after-treatment essential to success has not been followed up. If a foot which has long been in a position of equinus be corrected by section of the endo Achillis and forcible manipulation, it tends to return to its old position of deformity as soon as the incised tissues are healed. The new tissue tends to contract, and the anterior tibial group of muscles not being effective to produce dorsal flexion, relapse speedily occurs. Especially does this occur at night while the bed-clothes drag the foot back to its old position, unless prevented by appliances. (Fig. 5.) While walking about the weight of the body is a corrective agency and may prove sufficient in some instances, while in others some form of mechanical apparatus attached to the boot, or some modification of the boot itself, or both, may be essential to the maintenance of the gain secured by operation. No routine treatment of these cases can be recommended. Each case must be dealt with according to its own requirements, and the varying nature of the disabilities and deformities resulting from the disease under consideration make necessary a very wide range of therapeutic



FIG. 6.
Plaster cast of left foot seen from behind, showing extreme pronation of the foot from infantile paralysis.

measures in order to secure the best possible results. It is deplorable that these cases are so often regarded as incapable of improvement, the result being that the unfortunate patients usually drift into the hands of instrument makers whose ignorance of anatomy, physiology and pathology limits their therapeutic resources to the making of appliances which may be useful or quite otherwise. It requires knowledge and discrimination to decide which cases are best treated by mechanical means alone, and having determined that, what mechanical means will best accomplish the desired end. In a large proportion of cases disabled through anterior polio-



FIG. 7.

Result of the operation of tendon-plantation in such a case as that shown in Fig. 6. Unfortunately this particular patient was not photographed before operation.

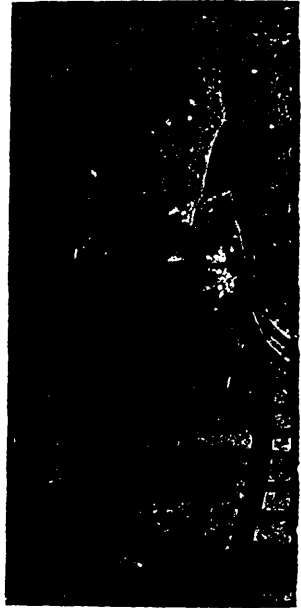


FIG. 8.

Severe infantile paralysis involving the gluteal muscles, depriving the patient of the power to hold the trunk erect upon the legs.

myelitis, the muscles affected are not entirely paralysed; some of the ganglion cells of the cord at the point from which the motor nerves arise have lived through the storm and serve to vivify, it may be only a few fibres going to the affected part. While the use of appliances may be unavoidable in many of these cases, we must never lose sight of the benefit to be gained by massage and carefully graduated exercise, especially the latter, so that through development the most may be made of such muscular fibres as retain their vitality. And the gain should by no means be limited to the increased power resulting from the strengthening of muscular fibres;

still greater good may be obtained by the education of the patient by a course of training intelligently carried out and sufficiently prolonged to establish habits of using the body to the best mechanical advantage. There are many to-day who are moving about on wheel-chairs, or upon crutches, who might have been much less dependent upon such aid had an adequate course of physical training been adopted within a reasonable time of the onset of the disease which has crippled them. By one means or another nearly all cases can be improved even after years of neglect, yet it goes without saying that after prolonged disuse of important parts as good results cannot be expected as are obtained in cases submitted to the best treatment at an earlier date. The following is an illustrative case:

G. M. L., a physician's daughter, was brought for advice when nineteen years of age. From early life she had walked with crutches, using only one leg. The other limb was atrophied, and contractures had occurred in the hamstrings preventing extension at the knee beyond an angle of 120°. A similar contracture of some of the leg muscles had produced a distortion of the foot. A three months' course of massage with efforts directed to correcting the deformities which had resulted from the contractures, and the application of a light brace with joints at knee and ankle, together with a cork-soled boot, effected such a degree of improvement that she now walks fairly well and comfortably without further aid.

But even when certain groups of muscles have lost all power there are surgical means by which some control of flail-like parts may be restored.

About the same time in 1890, Phelps, of New York, and Parrish, of Philadelphia, resorted to the plan of transplanting the tendons of functioning muscles, so as to give them new insertions, enabling them to move parts which before were disabled, and transferring their action to a point where it would secure greater good to the individual. Sometimes the muscles that still retain power to act do injury to the part where their power is applied, owing to the opposing groups of muscles being destroyed. (Fig. 6.) In several cases we have found the ankle almost a flail joint; the peronei, how-



FIG. 9.

Severe infantile paralysis involving both lower extremities. In this patient some power was retained in the right limb, but on the left side there was complete paralysis of all the muscles which control the movements of the knee joint, and the knee assumed a position of marked hyper-extension when he attempted to bear weight on the leg. The extreme atrophy of both extremities is well shown.

ever, acting strongly, served only to displace the foot strongly outward. In some of these improvement was effected by shortening the tendo Achillis, and, after cutting the tendons of the peronei in front of the ankle, drawing the proximal ends out from their sheath and suturing them into the tendo Achillis near its attachment to the os calcis. (Fig. 7.)

We have employed the same principle in other cases with varying degrees of satisfaction, transplanting other muscles so as to give them new insertions according to the varying indications.

Another surgical procedure, valuable in selected cases, is arthrodesis. Several years ago Albert, of Vienna, suggested excision of the knee-joint in certain cases of paralysis, and others have suggested and performed other operations upon flail joints with the object of producing ankylosis.

Quite recently, Robert Jones, of Liverpool, has published an interesting series of arthrodesis operations upon flail joints. That arthrodesis is a rational operation in certain of these cases is evident when we consider the purpose of the lower extremity. Its function for weight-bearing and locomotion make it essential that strength and stability rather than mobility should characterize its joints. This is not the case in the same degree in the upper extremity. Hence, the ankle and the knee are the joints especially suitable for arthrodesis, when the surrounding muscles are so far disabled as to be unable to control the movements of the leg and foot, or even to keep the body poised securely upon its natural support. The desired result may be obtained by a formal excision; or, preferably, the joint may be opened and the cartilage scraped away and the bone laid bare in such a manner as to secure osseous ankylosis. An ankylosed ankle or knee in good position is much more serviceable for standing or locomotion than a movable weak joint, whether the weakness of the joint be due to paralysis or to other disease which has disabled it.

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ECLAMPSIA TREATMENT.

BY W. J. WILSON, M.D., TORONTO.

THE treatment of eclampsia should begin with prophylaxis—with our first intimation that pregnancy exists. This cannot be too early, as some of the most fatal cases occur during the early months of gestation. A most careful examination of our patient should be made; the condition of her heart, arteries, blood and nervous system noted, and her previous labors, if any, inquired about; the amount of urine, its specific gravity and deposits; whether it contains albumen or casts, or whether creatin, creatinin or indican are present in more than normal amounts. If the eliminative power of the kidney is poor, barely sufficient during

the non-pregnant state to eliminate the full amount of waste from the system during gestation, we may expect trouble.

Eclampsia occurs very frequently where there is no history of previous kidney disease, but a healthy kidney fully up to its work, and with the usual reserve power which Nature has provided for emergencies, is much better able to carry the patient through the critical period than one crippled by previous disease. In our prophylactic treatment we should keep all the organs, but especially the digestive and excretory ones, in as healthy a state as possible. This is not only for the proper nourishment of the system, but from the fact that indigestion adds largely to the eliminative work of the kidneys. If indican be found in more than normal amount, five to twenty milligrammes, in the urine, it is an indication of intestinal fermentation; and purgatives and disinfectants are called for.

It has been shown that disinfection by charcoal, which fixes the coloring matters and alkaloids in the fæces, will reduce the poisonous properties of the urine from one-half to two-thirds (Bouchard). This fact emphasizes the necessity of keeping the alimentary canal free.

The diet should be easy of digestion and with little residue. Indigestible matter may form a mechanical source of irritation which, if not in itself sufficient to produce eclampsia, will through its reflex influence act as a powerful factor in the production of fits.

Fats, sugars and hard indigestible vegetables, such as carrots, should be avoided. When there is albuminuria, milk, and especially skimmed milk and buttermilk, should enter as largely as possible into the dietary. Bland fluids, or one of the mineral waters should be taken in sufficient quantities to flush the kidneys and wash out the system. Hot water taken in sips about an hour before meals will answer the double purpose of flushing the system and aiding the stomach where digestion is not up to the mark, or a catarrhal condition of the stomach exists. Sulphate of magnesia, either alone every morning, or, which is preferable, three times a day combined with iron and some saline diuretic, answers an excellent purpose. The skin should be kept active and protected from chill, while frictions and massage keep the circulation and nutrition of the muscles active, and prevent the gradual accumulation of waste products, especially the potash salts which, according to Bouchard's experiments, have strong convulsive properties. Moderate exercise, on the same grounds, is beneficial. A woman is far better with moderate exercise, either out-door or attending to light household duties which exercise the body and keep the mind from brooding morbidly over coming events.

The induction of abortion or premature labor is a prophylactic measure of great importance, but never to be too lightly undertaken or without sufficient consultation. If the child is near the viable period, and the condition of the mother warrants it, we may

temporize in the hope of saving the child. Where the symptoms are urgent in the early months, and it is evident to wait for viability would endanger the mother, better operate. If gestation has advanced to seven months or over, and symptoms too urgent to risk waiting for the completion of term, or if the child is dead, operate. Where there is a reasonable hope of saving both mother and child, it is of course our duty to do so, and the nearer to term we can prolong gestation, the better for the child.

The amount of oedema is not of much importance as a prognostic sign. Cases that are enormously swollen often pass through labor without any trouble, while others with little or no oedema are suddenly seized with convulsions, and die before either friends or physician are aware of anything being amiss. In these latter the watery parts of the urine have been excreted, while the poisonous salts and waste products have been retained in the blood.

This retention of poisonous matters goes on in cases of eclampsia until, as Bouchard points out, the urine of the eclamptic patient has lost all its poisonous properties, and when injected into the blood of an animal will not cause death any sooner than so much distilled water. When gestation is at full term and convulsions have come on, we should empty the uterus as quickly as possible, but at the same time by the administration of chloral, chloroform or morphia protect our patient from shock and reflex irritation. By this course we put the nervous system at rest, and lower arterial tension. The kidneys are relieved of pressure and congestion and assisted to resume their function. A considerable amount of poison is carried out of the system in the blood lost during delivery, the intra-abdominal tension is lowered, and a large amount of blood is in consequence withdrawn from the general circulation into the large abdominal veins. This helps tide the patient over till the secreting power of the kidney is fully established and the poison eliminated from the system.

Our armamentarium consists of chloroform, chloral, morphia, the bromides, veratrum viride, nitroglycerine, bleeding, purgatives, diaphoretics and diuretics, and injections of normal saline solution. Our indications are to eliminate the poisons from the blood, and while doing this protect the nervous system from their baneful influence.

Bouchard, in his experiments on urines, showed that two poisonous substances at least exist in urine. The one is soluble in alcohol and narcotic in action, the other insoluble in alcohol and convulsive in action, while a mixture of the two does not produce convulsions.

This observation explains the efficacy of our sedatives and narcotics in eclampsia. Outside of their benefit in deadening the nervous reflexes and dulling the mental impressions, they counteract the convulsive poison in the blood. During the first painful stages of labor, especially if the nervous system shows excitability, it is wise to give sedatives not only for the relief and

comfort to the mother, but for the protection they afford our patient from convulsive accidents. Bromide of potassium has been much used, and while it is of benefit in quieting the nervous system, bromide of soda is a better preparation, as the potash itself, as derived from tissue metabolism at least, has decided convulsive properties. Morphia hypodermically is one of our most reliable remedies, but must be given in full doses, from one-quarter to three-quarters of a grain, and repeated as necessary. Besides being in itself very reliable, we may at the same time, if necessary, give chloroform, verat. virid, nitroglycerine or amyl nitrate, all of which have been found very useful, and one or other of them relied on as an essential part of their treatment by many practitioners. The morphia acts by dulling the nerve centres, and acting as a counter poison to the convulsive substances retained in the blood.

The other remedies above mentioned seem to act by lowering arterial tension and bleeding the patient into her own vessels. In this way the waste products from the tissues are not carried so rapidly from their source to the nerve centres. Brisk cathartics such as croton oil, jalap, eleterium and sulphate of magnesia may be given.

In the writer's experience sulphate of magnesia is the best. If patient is unable to swallow it may be introduced into the stomach through the stomach tube, and repeated until the desired results are obtained. It may at the same time be used as an enema. While being more certain in its action than croton oil or eleterium, it is safer to repeat.

The advantage of the cathartic is twofold: it removes poisonous matters from the blood, and prevents the absorption of other poisons from the intestinal tract. The kidneys may be acted upon by drinking water, if patient is conscious; if not, by a rectal injection of a normal saline solution, or the injection of the same into the cellular tissue or veins. Injected into the cellular tissue the normal saline solution acts as an efficient diuretic, and washes out the system better than any other means at our disposal, and besides it is easy of execution and requires very little knowledge of technique, and no costly apparatus. As a means of lowering the arterial tension, and at the same time eliminating a considerable amount of poison, blood-letting should not be forgotten.

Bouchard estimated that a bleeding of 32 g. equalled in eliminative power a sweating of 100 g., or a watery discharge from the bowels of 280 g. Bleeding has the advantage that it can be done at once, and while you are waiting for the action of other measures. After the bleeding the vessels may be again filled by the normal saline solution, as mentioned above. In any case we should not depend on any one remedy or class of remedies, but should combine sedatives and narcotics with eliminatives in the most judicial manner for the case in hand, and thus produce the most prompt and efficient action.

Surgery.

CANCER OF THE RECTUM.

IN a paper in a recent number of *The Annals of Surgery*, Kraske gives his conclusions based on 110 cases, on 80 of which he operated. He says the two sexes are equally subject to it, the round cell variety being of the commonest occurrence, and the tumor occurs most frequently in the upper portion of the rectum, thus necessitating opening the peritonéum in two-thirds of all cases.

In the cases coming under his observation no definite history of previous injury was obtainable, nor was it ever found to have developed from a previous ulcer, cicatrix, fistula or hæmorrhoidal ulceration. A family history of cancer was only got in three cases.

In regard to the rapidity of growth, he says that it is much slower than is generally supposed, two or three years usually elapsing before it comes under treatment. The squamous cell variety occurring at the anus is of more rapid growth, and the melanotic variety still more rapid. The average duration of life in the round cell variety is four or five years.

As for symptoms there are no marked ones for some time. Occasionally there is in the movements of the bowels some clear, glairy mucus, or a trace of blood. Pain only sets in when the tumor begins to encroach on the lumen of the bowel and ulceration starts.

The manifestations are usually localized; disturbances from metastatic deposits were almost never seen. Secondary deposits may not occur at all, though he observed them in the case of a man twenty-three years old, so age is no bar to their presence.

The diagnosis is often difficult, frequently requiring an examination in the erect posture to find the tumor. Then, too, it is often put down as a case of hæmorrhoids, and treated as such. When the tumor is high up in the rectum, with a tendency to invaginate the bowel, the feel to the finger is characteristic, being like the eroded, indurated cervix.

Between cancer and syphilis he says the diagnosis should not be hard, for in cancer we have a tumor, in syphilis a cicatrix. The syphilitic ulcer never has the dense tumified border we find in cancer, and they are apt to be multiple and separated by portions of healthy mucosa, or mucosa showing cicatrixation; not so in cancer, for they remain circumscribed for a long time.

Syphilitic ulceration too frequently sets up periproctitis, and abscesses or fistulæ opening externally. A cancer low down in the rectum may break through the skin about the anus, but in such a case the infiltrated edges of the opening will show its true character.

In diagnosing he says we must recognize the tumor, its extent, if limited to rectal wall or not, and its mobility. This is easy in the lower part of the rectum, but in the upper part an examination in erect position, or under anæsthesia, may be necessary.

As regards treatment he states that thorough removal, if possible, must be done. Colotomy is only done as a last resort, and then only for the relief of complete or impending obstruction. The results obtained are even better than operations for cancer in other parts of the body. As for local treatment mild astringents will keep the ulcer and foul discharge within bounds. Curetting the ulcerated surface may occasionally be employed, but is attended with considerable danger.

INDICATIONS FOR TREATMENT.

According to Kraske, the high situation is no contra-indication to operation if the tumor is freely movable. He says, as a rule, if a tumor of the upper part of the rectum is firmly adherent to the bladder, uterus or sacrum, it is inoperable. If situated lower down, the adhesions are less important as a large portion of the soft parts may be removed, even to removing part of the urethra or posterior vaginal wall. The only contra-indication to operation in the lower part of the rectum is extensive implication of the bony parts; secondary deposits also forbid operation. In considering the advisability of operating, consider the age of the patient, the power of resistance, the presence or absence of intercurrent disease, etc.

PREPARATORY TREATMENT.

Kraske maintains that this is of the utmost importance. Get thorough evacuation of the bowels by using cathartics and enematas.

If colotomy is done, do it as a preliminary operation, two weeks before the operation on rectum, and not merely prior to the operation, as Schede recommends, and if done it is best done in the transverse colon.

THE OPERATION.

Kraske proceeds thus: If the tumor is at the lower part of the rectum dilate the anus, extirpate the base of the tumor, check hæmorrhage at once and close the incision by suture.

If the tumor is at the anus he encircles it by an incision in the healthy tissues and cuts it away. Part of the sphincter may be saved in the case of smaller tumors.

In most cases it is best to make a circular incision around the anus, dissect it upwards, and cut it away above the tumor; this is called ex'irpation or amputation of the rectum.

If the tumor is at the upper part of the rectum, he divides the operation into three acts:

I. Preliminary sacral operation.

II. Removal of the tumor (resection of the rectum).

III. Treatment of the peritoneum, of the ends of the bowel and of the wound.

1. Preliminary sacral operation, he performs thus: Place the patient on the right side, knees and hips well flexed. He begins the incision at the level of the middle of the sacrum, two or three fingers' breadth to the left of the mid-line, and it runs slightly concave to the left down to the coccyx, and from there it runs in the mid-line and ends a finger's breadth above the anus.

The soft parts and insertion of the sacro-sciatic ligaments is divided; the fat in the ischio-rectal fossa is cut through, as is also the levator ani muscle. The coccygeus muscle now appears, and is divided close to the sacrum and coccyx. The latter is dissected free on the right side, and posteriorly then excised; the loose fat between the upper pelvic diaphragm and the bowel is pushed to one side by the finger, and the rectum becomes visible. If on account of the narrow space between the sacrum and ascending ramus of the ischium there is not sufficient room, he resects part of the sacrum with the bone forceps, chain saw or chisel. After separating the soft parts in a line concave inwards and downwards, running from the third left sacral foramen to and around the fourth left sacral foramen, then to the lower angle of the sacrum, he resects at the level of the third foramen if necessary.

This method is the original one, except the curved incision, which is Hochenegg's modification. Bardenheuer's uses the transverse resection of the sacrum in all cases, while Kraske uses it only in complicated cases. Rose makes a transverse section at the level of the second foramen.

Kraske says he never saw any disturbance of function arise from separation of the sphincteric insertion to the sacrum nor prolapse of the pelvic organs due to loss of support. Osteoplastic operations, he says, are more serious, more complex, more bloody, there is permanent damage to the sphincter, the sacral canal is always opened, and they are opposed to the purpose and principles of the after treatment in a very important point, for to close the large wound at once is an error associated with great danger. One great advantage he claims for the sacral method is that it permits of a liberal packing of the wound. Kraske has recently adopted a modification consisting of a temporary resection of the coccyx.

2. Resection of the cancer from the continuity of the bowel he performs thus: He divides the bowel below the tumor, opening it transversely, meanwhile pressing it up into the wound with the left index finger. Sutures are passed through the upper cut surface which serve for traction, and more are placed as the incision is extended to either side till the bowel is entirely divided. Blunt dissection precedes each step of the division, care being taken of the vitality of the gut. The same objection is found when the gut is freed entirely before opening it.

The bowel being divided below, bring the patient into the lithotomy position and dissect on all sides, partly blunt, partly with

scissors. On the anterior surface great care is necessary, for the anterior fold of peritoneum soon appears. If the fold lies above the tumor it can be stripped off from the bowel, but if below it must be opened. After opening two fingers are introduced and the incision is extended laterally, the gut is pulled down and divided, and the sacral glands are removed. Adhesions may give trouble or the growth may be diffuse.

3. Treatment of the peritoneal wound: If small, close by ligature or suture; if large or if there has been much manipulation, simply pack the wound.

TREATMENT OF THE ENDS OF THE BOWEL.

Resection aims to remove the disease and restore the continuity with preservation of its function. Kraske at first tried complete circular suture, but this failed; he then tried suturing the anterior part only, allowing the fæces free exit into the wound, suturing the rest of the bowel when the peritoneal wound had healed. This also failed. Next he invaginated the upper end into the lower, with and without circular suture, but this, too, was unsuccessful; now he has returned to his former method of circular suture after thorough preliminary treatment, and after operation keeps the bowels constipated for eight or ten days with opium. This method proves successful. He quickly sutures the anterior and lateral portions of the bowel with sutures half a centimeter apart, which pass through the entire thickness of the bowel. Between these he sutures the mucosa. He then closes the posterior part by tier sutures from the outside. These sutures do not involve the mucosa. He generally gets primary union; the fine fistulæ sometimes seen close spontaneously.

TREATMENT OF THE WOUND.

Pack with iodoform gauze—this prevents infection; remove the packing until it shows a tendency to become loose, which it does about the end of the first week.

HIS RESULTS.

Fifteen out of eighty died before complete closure of the wound. During the first five years when he was evolving his methods, ten deaths occurred in twenty-nine cases, a percentage of 34.5. During the last seven years since completing his methods, he had five deaths in fifty-one cases, or 9.8 per cent. Four died of peritonitis during the first five years, while three died from septic infection of the wound with emphysema of the tissues. The average time for the closure of the wound was four to six weeks. Twenty-two cases died of recurrence with or without metastasis from $\frac{1}{2}$ to $12\frac{3}{4}$ years after operation. One is alive with recurrence $11\frac{1}{4}$ years after operation. Sixteen died of intercurrent diseases without metastasis or recurrence from $1\frac{1}{4}$ to 5 years after operation. Fifteen are alive free from recurrence from $\frac{3}{4}$ to $8\frac{1}{2}$ years after operation.

B. L. R.

Gynæcology and Obstetrics.

LYSOL IN GYNECOLOGICAL AND OBSTETRICAL WORK.

DR. J. D. HARTLEY (*New York Lancet*, July, 1897) recommends highly the newer antiseptic, Lysol, in gynecological and obstetrical practice. He claims that it is superior to bichlorid of mercury and carbolic acid in bactericidal properties, and is without any toxic effects. Besides it is freely soluble in water at all temperatures and in all proportions. For personal and external disinfection a one per cent. solution is recommended, while for gynecological operations a two per cent. solution answers better. It is also comparatively inexpensive. Owing to its soapy consistency, it softens and does not irritate the skin, but renders it smooth and pliable. While not perhaps the ideal disinfectant, it comes nearer to it than any other preparation he knows of. G. T. MCK.

SERUM THERAPY IN PUERPERAL SEPTICÆMIA.

STEELE (*British Medical Journal*, October, 1897) gives a table of twenty-six cases, collected from various publications, in which the anti-streptococcic serum was used in puerperal septicæmia. In some of the cases, no ills apparently followed the treatment. Those did the best in which a large initial dose was administered early after the onset of symptoms. Of the total number of twenty-six cases, sixteen recovered and ten died. In four of the cases that died, treatment was not administered until quite late, until organic lesions were established.

The anti-streptococcic serum being of value only in streptococcic infection, a bacteriological examination of the uterine discharges should when possible be made in order to determine the presence of the streptococcus. The use of the serum in no way dispenses with the necessity for local treatment (curetting, douching, etc.), as probably in all cases of puerperal septicæmia there is a mixed infection and other organisms. Besides this streptococcus pyogenes are present in the uterus and capable of causing a fatal toxæmia if their growth is not prevented.

At a recent meeting of the New York Academy of Medicine, October 7th, 1897, reported in the *Medical News*, in a discussion on the treatment of puerperal septic diseases opinions varied regarding the value of the serum treatment. Dr. Gaudin stated that no well-authenticated case had been reported where cure had resulted from its use. Dr. Charles Noble, of Philadelphia, said the results of the

serum treatment of these cases had not been satisfactory in Philadelphia. Twelve cases with six deaths and six recoveries had been reported, these by various men, and the general opinion is that the serum is harmful, but the cases in which it was employed were of more than average severity. Dr. Paul F. Munde, on the other hand, spoke highly of the new antitoxine treatment, and mentioned two cases in which he had used it with most satisfactory results.

G. T. McK.

**GENERAL SUPPURATIVE PERITONITIS TREATED BY A
NEW METHOD.**

DR. J. M. T. FINNEY (Johns Hopkins Hospital *Bulletin*, July, 1897) reports five successful cases of laparotomy for purulent peritonitis, and describes his method. This consists of making, first, a long incision which will admit of easy access to all parts of the peritoneal cavity. He then rapidly withdraws the coils of small intestines, beginning with the worst coils first, until they are all placed outside the abdomen, and covers them with warm gauze or towels, practically disembowelling the patient. The peritoneal cavity is then thoroughly and systematically wiped out with large pledgets of gauze wrung out of hot salt solution, paying particular attention to the pelvic portion. In some cases it is well to flush out the cavity with warm salt solution. Next, the small intestine is systematically examined, loop by loop, while still outside the abdomen, and rendered microscopically clean by wiping with gauze compresses wrung out of hot salt solution. It is necessary to wipe with considerable force at times, in order to remove adherent flakes of partly organized lymph. It facilitates the cleansing process, as well as lessens the shock of the operation if the wiping of the intestinal coils is carried on under a constant irrigation of warm salt solution.

After being cleansed of all foreign material, pus, fæces, lymph, etc., the intestine should be replaced in the abdomen, the worst, or sutured coil, if there be one, being last or most superficial in order that it may be the better drained by being packed about with gauze, if necessary.

The abdominal wound is then tightly closed, leaving just room enough between two sutures for the gauze drain. If there are any evidences of distension or pain, the abdomen should have the Paquelin cautery thoroughly applied, and the bowels moved early by calomel, followed by salts and a turpentine enema.

It is not claimed that this method will cure every case of general suppurative peritonitis, but that a larger percentage of cases will recover after this method than any other.

To insure success it is essential that the operation should be performed within a few hours after the perforation has taken place.

G. T. McK.

Medical Jurisprudence.

THE LEGAL ASPECT OF THE MAYBRICK CASE.*

BY CLARK BELL, ESQ., OF THE NEW YORK BAR.

(Continued from October issue.)

LET me now call attention to Lord Salisbury's answer to the American petitioners—the only attempt that has hitherto been made to define the new charges, and supply the particulars that would be absolutely necessary in framing an indictment on them. She made the attempt relied on, he stated, when pretending to nurse her husband on his sick-bed. Now, I think Lord Salisbury will have the honesty to admit that there was practically no evidence of any actual administration of arsenic while Mr. Maybrick was confined to his bed, and his wife was in attendance on him as a nurse. But it was contended that during this stage of his illness she made an unsuccessful attempt to give him some meat-juice, with which she had meddled, and in which arsenic was subsequently detected. As regards this attempt, as already stated, the jury made no finding whatever. Their finding, such as it was, related to actual administration only. But we now learn from Lord Salisbury that this charge of actual administration is in fact abandoned, and that the English Government places its whole reliance on an incident quite outside the finding of the jury.

Moreover, it will be seen that Lord Salisbury is not satisfied to rest this charge upon the evidence given at the trial only. He refers also to certain "facts known to Her Majesty's Secretary of State." These alleged facts have never been communicated to the prisoner nor her advocates, although they are relied on as proofs of a crime for which she had never been tried; much less has the public been informed of them, but so far as can be ascertained they are wholly unimportant.

As the charge of murder of which Mrs. Maybrick was convicted by the jury does not include the charges of administering and attempting to administer poison with intent to murder, on which the Home Secretary relied, so a conviction or acquittal on the former charge would not in any way exclude a trial by Judge and jury on these latter charges. It need hardly be said that, even irrespective of evidence procured since the former trial, the defence against these new charges would assume a new aspect. New questions would be put to the witnesses, and new arguments addressed to the jury. The trial for murder did not in any respect fulfil the conditions of a fair trial on Mr. Matthews' charge of attempt to

* Read before the Medico-Legal Society, March 17th, 1897.

murder. As regards the meat-juice, for instance, the counsel for the defence thought it sufficient to point out that, as Mr. Maybrick had taken none of it, it could not have conduced in any way towards the death which the prisoner was accused of having caused. The question whether anything took place which amounted in law to an attempt to administer the meat-juice was not made the subject of cross-examination or argument, because it was not relevant to the issue before the jury; and a material item of evidence on the point, which had been given at an earlier stage, was not repeated at the trial. But the Home Office has persistently refused, not only to submit its new charges to the jury, but even to hold a public inquiry into them where the witnesses could be further questioned, and arguments arising on their testimony addressed by counsel to the Home Secretary or the presiding officer. If the charges in question are really distinct from the charges on which alone she was tried and convicted, she had never had even the faintest semblance of a fair trial for them. Indeed, they have never been defined by such particulars of place, time, and circumstances as to inform her advocates of the points to which their arguments ought to be directed. An admittedly wrongful conviction for one crime is kept alive for the sole purpose of enabling the Home Secretary to punish the prisoner, without any trial whatever, for totally different offences, without violating the letter of the law, but in complete violation of the spirit and intention of Magna Charta itself.

Finally, though the crimes charged against Mrs. Maybrick by the Home Secretary are punishable by penal servitude for life as the maximum penalty, I know of no instance in which any woman—not to say a lady in delicate health and a first offender—has been sentenced to penal servitude for life on a conviction for them. In a recent case where the attempt to murder consisted of poisoning, and the man's life was endangered, the poisoner (who had received some provocation) escaped with three years' penal servitude.

The severity of Mrs. Maybrick's sentence is in fact as unparalleled as the supersession of both Judge and jury in passing it. Instead of being a necessary consequence of Mr. Matthews' finding, it is a most unusual one, though just within the limits of possibility. The principles of mercy have been violated almost as flagrantly as the principles of justice. A sentence of penal servitude for life is indeed often passed by the Home Secretary—in cases of infanticide, for instances—without any intention of enforcing it.

Many persons thought that this was so in Mrs. Maybrick's case, and that she would have been liberated before the present juncture. And most probably this was the intention of Mr. Matthews at the time. But Sir M. W. Ridley has informed us that the sentence is to be rigorously enforced, and that this was also the intention of Mr. Asquith. The sentence must, therefore, now be treated as meaning what it says. Was it a fair or a just sentence to pass behind the prisoner's back without hearing a word in defence or

extenuation on undefined charges never submitted to any jury and which at most only rendered it possible as the extreme penalty in the statute book? Mr. Asquith was always merciless, but Sir. M. W. Ridley's action in the matter is simply astounding. He literally seems to contemplate mercy for every one except the convict whom "the head of the criminal judiciary of England" has officially declared "to be entitled to an immediate release." He is neither a barrister nor a solicitor; but probably for that reason attaches undue weight to the opinions of his predecessor and his subordinates. A strong protest from the members of the legal profession at both sides of the Atlantic would perhaps open his eyes to the quagmire into which his adherence to officialism and routine has in this instance led him; but even if it were certain that such a protest would fail to procure life and liberty for this victim of Home Office mismanagement and obstinacy, it is imperatively required for the honor and dignity of the legal profession itself. What will posterity think of its members if they permit the intended judicial murder to be perpetrated, without once raising their voices in the interests of justice and humanity?

While I think Mrs. Maybrick ought to have been liberated at once, that is not now the question. The questions that now arise, when we consider the case in its purely legal aspect, are these: 1. Can we, after finding the crime of murder unproved, spell out of the verdict of the jury any minor crime punishable by penal servitude for life, and if so, was the sentence of penal servitude for life passed on this prisoner, for this minor crime, the distinct act of the judge, as the law requires, and not that of the Home Secretary? (With regard to all such minor offences the presiding judge exercises the widest discretion under the English system, but his sentence, if too severe, may be moderated by the Home Secretary, who cannot, however, increase it.) 2nd. If so, can we, in consistency, reject the finding of the jury as to the crime of murder, while retaining it as to the minor crime in question? In other words, is this minor crime established by satisfactory independent evidence? 3rd. Is there in the evidence given at the trial such conclusive proofs of a minor offence punishable by penal servitude for life, and not included in the verdict of the jury, as to justify the Home Secretary in dealing with the charge himself, instead of submitting it to a second jury? And did he, in so dealing with it, without allowing the prisoner all reasonable facilities for defending herself against the new charge, both by evidence and argument? and did she receive the benefit of every reasonable doubt that could be raised in relation to it, as a second jury would have been bound to give her, if she had been tried upon such new charge, notwithstanding her previous conviction upon the charge of murder? 4th. Was the minor crime or crimes, thus conclusively proved, of such a nature as to make it certain that the presiding judge would, in the event of a conviction, have imposed the maximum sentence of penal servitude for life? and, if not, did the Home Secretary consult any, and what judges, as to the proper sentence to be imposed for such

crime or crimes? Had Mrs. Maybrick been convicted by a jury of any crime not punishable by penal servitude for life, she would now be free. Had she been convicted by a jury of a crime punishable by penal servitude for life she would very probably be free also: for the sentence might not exceed ten years' penal servitude and good conduct would in that case procure a release in somewhat less than seven.

Lastly, the ambiguous utterances of Mr. Asquith and Sir M. W. Ridley suggest another question. 5th. After the Home Secretary, with the concurrence of the presiding judge and the premier, has declared that the crime of which the prisoner was convicted has not been proved beyond reasonable doubt, is a new Home Secretary justified (without any new evidence against the prisoner, and in spite of any new evidence in her favor) in punishing the prisoner for the very crime which had been publicly declared to be unproved? Sir M. W. Ridley's language, though evasive, went far to show that he regarded the crime of murder as completely established. Otherwise, indeed, the strength of his declarations on the subject is inexplicable. If the only crime that was proved against the prisoner was one for which a life sentence went to the extreme limit of the law, and was almost unparalleled in its severity, why should he declare that he had come "most emphatically" to the conclusion that it ought not to be interfered with? or why should he say that he had as little intention of releasing the prisoner as his immediate predecessor had, avoiding all reference to the Home Secretary, who originally passed the sentence, and who most probably *did* intend to modify it, like the similar sentences which he passed on unfortunate child-murderesses?

Prisoners of this kind usually receive a life sentence from the Home Secretary, and are set free in seven years at the utmost. It was generally thought that Mrs. Maybrick's sentence was of the same kind until Sir M. W. Ridley declared the contrary in the House of Commons. But now that the life sentence in her case is declared not to be a matter of precedent and routine, but one to be carried out to the full extent usual in such cases (for if an English "lifer" lives long enough he or she is ultimately released), we have a right to demand what offence, punishment by penal servitude for life has been established with perfect conclusiveness? and if penal servitude for life is the maximum sentence for the crime in question, we have a right to ask further, why, and by what authority, has this extreme penalty been imposed? In England a jury is the proper tribunal to decide questions as to the prisoner's innocence or guilt in respect of any specified crime; and, except in the case of conviction for murder, where the law compels the Judge to pass sentence of death, the Judge who presides at the trial is the proper person to fix the penalty. Is Mrs. Maybrick being punished for any crime of which she was convicted by a jury? Was her present sentence deliberately passed on her for that crime by the Judge who presided at the trial? And, if so, did it exceed the legal penalty for the crime of which she was thus convicted?

NOTE.—The opinions of the eminent counsel to which reference is made in the Report of the Committee which received the endorsement of the Medico-Legal Society, are appended :

RE MRS. F. E. MAYBRICK.

“Having carefully considered the facts in the elaborate case submitted to us by Messrs. Lumley & Lumley, and the law applicable to the matter, we are clearly of the opinion that there is no mode by which in this case a new trial, or a *venire de novo*, can be obtained, nor can the prisoner be brought up on a *habeas corpus* with the view of retrying the issue of her innocence or guilt.

“We say this notwithstanding the case of *Regina v. Scaife* (17 Q. B., 238; 5 Cox C. C., 243, and 2 Drew C. C., 281). We are of the opinion that in English criminal procedure there is no possibility of procuring a rehearing in the case of felony where a verdict has been found by a properly constituted jury upon an indictment which is correct in form. This rule is, in our opinion, absolute, unless circumstances have transpired and have been entered upon the record, which when there appearing, would invalidate the tribunal and reduce the trial to a nullity by reason of its not having been before a properly constituted tribunal. None of the matters proposed to be proved go to this length.

“We think it right to add that there are many matters stated in the case, not merely with reference to the evidence at and the incidents of the trial, but suggesting new facts which would be matters proper for the grave consideration of a Court of Criminal Appeal if such a tribunal existed in this country.

“(Signed) C. RUSSEL,
J. FLETCHER MOULTON,
HARRY BODKIN POLAND,
REGINALD J. SMITH.

“LINCOLN'S INN, 12th April, 1892.”

RE MRS. F. E. MAYBRICK.

“I agree with my learned friends that the evidence at the trial of this case did not justify the verdict, and I further think that this is a case where every possible means of procuring a rehearing should be resorted to; but I am unable at the present period of English law to assent to their proposition that in a case of felony, even if it is assumed that there is an innocent woman in an English prison, the rules of criminal procedure debar the Courts from applying any remedy unless some error making the trial itself a nullity can be shown to exist on the record; and I moreover feel that such an avowal, if made, should be made in the form of a Judgment of the Court and not in the form of an opinion of Counsel.

“In reference to the question put to us by Messrs. Lumley & Lumley in this case, I am of opinion that, assuming the facts of the case and irregularities of procedure, both by Judge and jury, set forth in the instructions can be conclusively proved, the Court should be invited *ex debito justitiæ* to set aside the verdict and order a new trial, especially as there is no recorded case of a refusal by the Courts to grant a new trial in a case of felony. While, on the other hand, the case of *Regina v. Scaife* (17 Q. B., p. 258, and 18 Q. B., p. 773) stands unreversed, in which case the prisoners were convicted of felony at the assizes by a properly constituted jury upon an indictment which was correct in form, and where, notwithstanding this, the Court of Queen's Bench, consisting of four Judges sitting *in banco* ordered that the verdict be set aside and a new trial granted, and where the prisoners, having been again convicted at such new trial, underwent a fresh sentence of the law.

“I deem it therefore presumptuous in me, as Counsel, to advise that any Court would overrule that case, or would regard the Rules of Criminal Procedure to be so inelastic as to compel the Court, under such circumstances as those set forth in the instructions, to refuse to set aside the verdict and order a new trial, in Mrs. Maybrick's case, upon the bare ground that it is a case of felony.

"Having regard to the provisions of the Judicature Act, 1873, and the Rules of the Supreme Court, I am of opinion that the High Court has jurisdiction to entertain an application for a new trial of a case tried at the assizes, which are thereby constituted a Court of the High Court, inasmuch as there is now no necessity for having the case removed by *certiorari*, or otherwise, into the Queen's Bench previous to the making of such application. (See *Regina v. Dudley*, 14 Q. B., p. 280, and *Mellor v. Royal Exchange Shipping Company*, the *Times'* Reports, p. 663.)

"I am further of opinion that, in the event anticipated by my learned friends, of the Court refusing to follow the precedent of the *Scaife* case, an application should be made to the Court to follow the precedent of the *Murphy* case (L. R., 2 P. C., 535), where the record was allowed to be amended, and that the Court should be asked on Mrs Maybrick's behalf to direct that an entry of the conduct of the Jury, and other irregularities mentioned in the instructions, be endorsed on the record (see 2 Hale's Pleas of the Crown, 308, where Lord Hale says that an irregularity 'is to be, as it ought to be, endorsed on the record'), and that this application should be made for the purpose of putting such an error upon the record as would form a foundation for a writ of *venire de novo*.

"I am further of opinion that the advice given to the Queen by the Home Secretary as to exercising Her Majesty's prerogative on the ground that the evidence left a reasonable doubt whether his death was, in fact, caused by the administration of arsenic (which in this case is equivalent to a reasonable doubt whether murder had, in fact, been committed), and also the course taken in consequence of that advice, of applying to and obtaining from the Court an order under the provisions of 5 George IV., cap. 82, directing that Mrs. Maybrick be kept in penal servitude for life, are unconstitutional, and that her imprisonment is consequently illegal; and, therefore, that an application can be properly made for a writ of *habeas corpus* with a view to obtain her discharge on the ground that she is illegally detained.

"In reference to the special question put by Messrs. Lumley & Lumley thus: 'Does the evidence disclose any sufficient grounds for the statement made by the Home Secretary in his advice to the Queen—viz., the evidence leads clearly to the conclusion that the prisoner administered, and attempted to administer arsenic to her husband with intent to murder?' I can, after careful perusal of the evidence, find no sufficient ground for such a statement, which is, moreover, contradictory to the summing up of Mr. Justice Stephen, who pointed out (e.g., p. 36), 'The theory is that there was poisoning by successive doses, but I do not know that there was any effort made to point out the precise times at which such doses may have been administered.'

"A careful perusal of the evidence makes it clear to me that no such occasion of administration, or attempted administration, of arsenic by Mrs. Maybrick, whether with or without felonious intent, can be pointed out as would afford the Home Secretary any sufficient ground for the representation he made to the Queen; and further, that the only ground to be found in the entire proceedings for such a representation is what Mr. Justice Stephen described as 'the theory' of the prosecution as distinct from 'the evidence.'

"(Signed) ALEXANDER W. MACDOUGALL.

"LINCOLN'S INN, April 12th, 1892."

Whatever may be thought or said by Counsel of the views of Mr. MacDougall by those skilled in English Criminal Procedure, and concerning which his associates do not seem to have assented, the opinions do show that this case would have been one in which an appeal would have resulted in a new trial in any State of the American Union, and that the "certificate of reasonable doubt" required under American practice on an appeal in criminal procedure would have been granted by any impartial Judge. W. A. Y.

Public Health and Hygiene.

MONTHLY REPORT OF DEATHS FROM CONTAGIOUS DISEASES IN ONTARIO FOR SEPTEMBER, 1897..

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

		Total Reported.	Per cent. of Whole Reported.						
Total population of Province.....		2,233,397	1,382,008	58					
" Municipalities		745	506	68					
" Cities		13	12	92					
" Towns and Villages		236	158	67					
" Townships		496	336	67					
VARIOUS DISEASES REPORTED.									
Municipality.	Pop. Reported	Typhoid.		Diphtheria.		Scarlatina.		Tub'erculosis	
		Deaths	Rate per 1000 per Annum	Deaths	Rate per 1000 per Annum	Deaths	Rate per 1000 per Annum	Deaths	Rate per 1000 per Annum
Cities	419,850	22	0.3	6	0.2	0	.0	45	1.2
Towns and Villages	293,808	8	0.3	9	0.3	2	0.08	38	1.5
Townships	668,350	9	0.1	9	0.1	1	.01	39	0.7
Total Pop. Reported	1,382,008	39	.3	24	.2	3	.02	122	1.0

P. H. B.

Experiments on Animals and on Man.

Thiersch's experiments on cholera, which caused the death of fourteen mice and proved that cholera is communicated by swallowing particles of cholera discharge, have been an important factor in the sanitary legislation of every civilized country.

Two of the London water companies experimented with cholera polluted water upon 500,000 people, causing the death of 3,476 human beings in 1853-54. This is the popular accidental experiment which antivivisection writers tell us to wait for, and which they say is sent by Providence to teach men physiology. Thiersch made the same experiment upon fifty-six mice, the conditions being accurately determined and scientifically controlled, and with the death of fourteen mice gave the world more exact information

about the contagion of cholera than all the cholera epidemics recorded in history. This is the scientific experiment which we are told should not be made.

The antiseptic method, which we owe in so great a measure to the vivisectional experiments of Joseph Lister, is past all reasonable controversy and we may refer to it here. It has come to be used in hospitals generally, and has reduced mortality from surgical operations to one-tenth of what it was before. Any one who has seen even a few cases of antiseptic surgery will readily agree with Dr. Keen when he says: "Sir Joseph Lister has done more to save human life and diminish human suffering than any other man of the last fifty years." Still, Lister was obliged to leave England to continue experiment in his merciful work after the passage of the restrictive law in 1876. In the Tübingen Hospital died from amputation before introduction of Lister's method and after:

	Per cent.	Per cent.
Of lower limb	43.5	3.2
Of upper limb	30.6	2.9

—Appletons' *Popular Science Monthly*.

E. H. A.

Vital Statistics of Bakers.

"In Austria it has been shown" (as reported by Mr. Fritz Griesinger, at a recent meeting of the Woman's Health Protective Association of Philadelphia) "that out of 5,207 bakers, there were 675 who died at twenty years of age, 2,356 between twenty and thirty, 1,202 between thirty and forty, 668 between forty and fifty, and but 300 men over fifty years of age. This shows that barely 40 per cent. of the bakers were over thirty, and only 18 per cent. forty and more years of age. The same thing is true here, as could be shown undoubtedly if only the proper investigations were made.

"Of the 5,207 bakers, 1,375 were on the sick list. Most of them suffered with inflammation or congestion of the lungs, and there were quite a number of tuberculosis cases, and also some cases of diseases arising from personal uncleanness or immorality.

"The chief battle-cry of the organized bakers is for clean and sanitary workshops. Next, for the reduction of the hours of our labor to a daily period more in keeping with the institutions of this Republic.

"For the sake of the health of the city, the welfare of our fellow-craftsmen, and, finally, in the name of humanity, we humbly ask you to join hands with us, and by every possible means help us to secure these reforms."

Mr. Griesinger then gave a detailed account of the evils of the bake-shops in Philadelphia, saying that nearly all of them are located in cellars, and are almost entirely without ventilation.

The Woman's Health Protective Association appointed a committee to assist Mr. Griesinger in his crusade of reform among the bake-shops of that city.—*Sanitarian*.

E. H. A.

Proceedings of Societies.

THE AMERICAN ELECTRO-THERAPEUTIC ASSOCIATION.

SEVENTH ANNUAL MEETING.

THE seventh annual meeting of the American Electro-Therapeutic Association was held at Harrisburg, Pa., on September 21st, 22nd and 23rd, Dr. W. T. Bishop, of Harrisburg, being President. Among papers of interest and importance to the general practitioner, as well as the specialist in electro-therapy, the following were read: "Electric Treatment in Gout and Uric Acid Diathesis," by Dr. R. Newman, of New York, who presented the advantages of static electricity in these conditions; urinary analyses were submitted substantiating his claim. In "Chorea," by Dr. F. T. Bishop, of Washington, static electricity was again set forth as a very valuable aid in treatment. "Sources of Atmospheric Electricity," by Dr. R. J. Nunn, of Savannah, Ga., had for its object the suggestion to practical students of physics to test with mechanical devices the correctness of the theory that the solar system acted as a vast static induction machine, producing by its motions a difference of stress or potential. "Some Thoughts and Considerations on X-ray Work," by Dr. E. R. Corson, of Savannah, Ga., gave many valuable ideas. The writer thought that the X-ray was destined to be even more valuable in dislocations than in fractures; he suggested that a careful outline tracing of the negative by transmitted light, all extraneous light being shut off, would enable the eye to pick out the essential features more readily than from the usual radiograph. Experiments in diagnosis were given, and radiographs presented showing that the X-ray penetrated urate of soda much more readily than bone. In "Some Considerations Relative to the Therapeutic Application of the Current," by Dr. G. E. Bill, of Harrisburg, many suggestions, especially as to polarity, were thrown out. "The Early Electrolysis of Nævus," by Dr. C. R. Dickson, of Toronto, set forth the advantages of operating in early infancy, when the operation was much more simple, and the chances of scars much less than when the patient was of mature years. Dr. E. H. Coover, of Harrisburg, gave many suggestions as to the most appropriate methods of treatment in "Heart Failure in Cardiac Diseases due to Defective Circulation." "Expenditure of Electrical Energy," by Dr. Margaret A. Cleaves, of New York, was accompanied by a large number of clinical records illustrating the value of accurate dosage of electricity, as knowledge of the rate of current flow was necessary, as well as the time of flow, in order to apply electrical methods intelligently. Professor Dolbear, of Tuft's College, Boston, gave a masterly paper on the laws governing molecular motion,

entitled "Molecular Effects of Electricity." He considered that the molecular effects produced by what we call electricity, are really due to heat. "The New Electro-Mercuric Treatment of Cancer," by Dr. G. B. Massey, of Philadelphia, was a further elaboration of a paper read before the American Medical Association in June last. The treatment was only applicable where the disease was still local. Mr. E. Jewell, E.E., of Chicago, presented "Current Regulating Apparatus," describing methods of controlling dynamo currents and adapting them to therapeutic uses. "Galvanism as an Aid in the Treatment of Goitre," by Dr. C. Brown, of Sac City, Ia. Mild constant currents frequently repeated were found beneficial. In "Further Studies of the Manifestations of Uric Acid, and their Treatment, Electrically and Otherwise," by Dr. J. Griffith Davis, of New York, the writer laid special emphasis on the statement that uric acid and its salts are the result or product of nerve and muscle waste. Electricity, the bicycle and woollen clothing next the skin, were methods of prevention. Dr. Lucy Hall-Brown, of New York, sent "A New Electrode for Use with the Static Machine," which was read by Dr. Nunn. The electrode was a wire brush, of about four hundred fine steel wires mounted on a handle, and by means of it an efficient spray current could be administered. Dr. J. Bergonie, of Bordeaux, France, sent three communications: (a) "A New Localizing Electrode to prevent the Diffusion of the Current," (b) "Palliative Treatment of Tic Douloureux of the Face," (c) "The Action of the Roentgen Rays on the Vitality and Virulence of Koch's Bacilli in Cultures." These papers were translated and read by Dr. F. Schavoir, of Stamford, Conn., (a) eight or ten narrow electrodes were connected alternately with the positive and negative poles, none but a very intense current could become diffused; (b) a large electrode is used on the face, and an indifferent electrode on the dorsal region. A continuous current of fifty volts, and thirty to fifty milliamperes is employed, and the periods of ascension and diminution last from seven to ten minutes, the maximum intensity should be maintained for at least twenty minutes; (c) the exposure of the culture for one hour did not destroy the virulence of the culture, but retarded its development; the vitality of the culture was not modified. Very interesting reports were presented by the Committees of Investigation, as follows: "Meters," by Dr. M. A. Cleaves; "Electrodes," by Dr. C. R. Dickson. On the recommendation of this committee the metric system of measurement was adopted by the Association. "Electric Light for Diagnosis and Therapy, and the Roentgen X-rays," by Dr. F. Schavoir. The president's address dealt with the past history of the Association, and suggested several changes that might increase its efficiency while lessening the work of the Executive. On motion of Dr. C. R. Dickson, it was resolved that the Executive Council should be directed to consider the suggestions of the president, and also the revision of the constitution and by-laws. Buffalo was chosen as

the next place of meeting, on Tuesday, September 13th, 1898, and two following days.

The following officers were elected for the ensuing year: President, Dr. Charles R. Dickson, of Toronto, Canada; First Vice-President, Dr. F. Schavior, of Stamford, Conn.; Second Vice-President, Dr. Caleb Brown, of Sac City, Iowa; Secretary, Dr. John Gerin, of Auburn, N.Y.; Treasurer, Dr. R. J. Nunn, of Savannah, Ga. Exec. Council: Dr. Robert Newman, of New York, N.Y.; Dr. William J. Morton, of New York, N.Y.; Dr. William J. Herdman, of Ann Arbor, Mich.; Dr. William T. Bishop, of Harrisburg, Pa.; Dr. G. Betton Massey, of Philadelphia, Pa.

After the customary votes of thanks had been passed, Drs. Newman and Nunn conducted the newly-elected president to the chair. Dr. Dickson, on receiving the gavel, made a very happy address, and requested the active assistance of each member in order that the meeting in Buffalo might be the most successful yet held. He would appoint the committees on the investigation of scientific questions, at the earliest possible date.

A very fine exhibit of therapeutic, diagnostic and X-ray apparatus was held in the Academy of Medicine, also under the auspices of the Association, and many demonstrations of a particularly interesting character were given by the exhibitors during the sessions.

The Association is to be congratulated upon the success of the meeting.

THE opening meeting of the Clinical Society was held in St. George's Hall, Elm Street, Nov. 12th, 1897. Dr. A. A. Macdonald, President of the Society, occupied the chair. The following are the other officers of the society: Vice-President, F. LeM. Grasset; Corresponding Secretary, F. Fenton; Recording Secretary, John N. E. Brown. Council: Drs. E. B. Anderson, Alex. Primrose, Wm. Britton, E. E. King, A. H. Garratt. Treasurer, W. H. Pepler. The following programme was gone through with: Presidential Address, A. A. Macdonald. "Abscess of the Brain following Ear Diseases," G. S. Ryerson, M.P.P. "Stab Wounds of the Heart," A. H. Garratt. "Removal of a Spina Bifida," George Bingham.

C. R. D.

REPORTS AND PAMPHLETS RECEIVED.

Department of Health City of Chicago: Arthur R. Reynolds, M.D., Commissioner of Health; F. W. Reilly, M.D., Assistant Commissioner Bureau and Division Reports, October, 1897.

Department of Agriculture, Ottawa—Farmers Bulletin No. 1: Tuberculosis in Cattle. By Duncan McEachran, F.R.C.V.S., D.V.S., Chief Veterinary Inspector for Canada. Published by authority of the Minister of Agriculture.

The Climates and Health Resorts of Canada. By P. H. Bryce, M.A., M.D. Secretary Provincial Board of Health of Ontario.

The Canadian Journal of Medicine and Surgery

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

Surgical Pathology—T. H. MANLEY, M.D., New York, Professor of Surgery, New York School of Clinical Medicine, New York, etc., etc.

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

Ophthalmology and Otolaryngology—J. M. MACCALLUM, M.D., Toronto, Assistant Physician, Toronto General Hospital; Oculist and Aurist, Victoria Hospital for Sick Children, Toronto.

Address all Communications, Correspondence, Books, Matter Regarding Advertising, and make all Cheques, Drafts and Post Office Orders payable to "The Canadian Journal of Medicine and Surgery," 145 College St., Toronto, Canada.

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

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

VOL. II.

TORONTO, DECEMBER, 1897.

NO. 6.

Editorials.

A CHRISTMAS GREETING.

"We bow to the lovely Evangel they bring,
And greet in His cradle our Saviour and King."

A lonely life indeed is the one too callous to care that the Christmas-tide has come again. The throb of the pulse of humanity is felt everywhere, all is life and activity.

“How full are all the streets to-night
 With happy faces flushed and bright,
 The matron in her silks and furs,
 The pompous banker, fat and sleek,
 The merchant proud, the churchman meek,
 Forgetful now of hate and spite,
 For all the world is glad to-night.”

The day always brings with it an echo of the song of peace and goodwill the angels sang so long ago. And so we join in the universal gladness of the world's great holiday, and cordially greet our readers with the old but ever joyous salutation, “A Merry Christmas and many of them.”

W. A. Y.

FILTERED WATER IN THE PREVENTION OF TYPHOID FEVER.

THE outbreak of typhoid fever at Maidstone, in England, has excited great interest among sanitarians in all countries. Some idea of its magnitude may be gathered from accounts in the *British Medical Journal*, showing that from September 11th to October 16th, 1,663 cases and 93 deaths were reported in a population of about 35,000. It was proved that the outbreak was due to contamination of the town's water supply by a camp of hop-pickers, whose faecal dejections were washed into a stream from which part of that water supply is drawn. Another outbreak of typhoid fever, now in progress in the town of King's Lynn, Norfolk, has also been traced to a polluted water supply drawn from the Gayton River. This river—or rather brook—which issues from chalk springs, about three miles from King's Lynn, serves as a drain for the valley through which it runs. The land in the valley is agricultural. About one and a half miles to the east of Lynn is the village of Gayton, of about 1,000 inhabitants. In this village there are few sewers, but in many of the houses the sanitary arrangements consist of privy pits, and there is no system of scavenging. The pits are emptied periodically, and the contents either buried or spread on the ground as manure. This ground slopes towards the Gayton River.

Thus we have the Gayton River fed from (1) chalk springs, (2) field-surface drainage, (3) surface drainage from Gayton village, which must consist largely of faecal matter. The town water

supply is drawn from this stream, within the area of the town itself, and after being strained through gravel is pumped direct to the mains. There is no attempt at *filtration*. With such a supply typhoid fever is endemic. On September 29th, a heavy rainfall occurred, two and a half inches falling in three hours. This caused a large flush of surface storm-water to fall into the Gayton River. Such flushings came from the valley already described. Twenty-three days afterwards the number of cases notified was twenty-six. From October 1st to October 26th, 201 cases have been reported. The inference then is that, in this storm-water the typhoid germs were washed into the town supply.

At Windsor, Ont., a town with a population of 10,750, the sudden introduction of water, largely polluted with faecal dejections, into the water supply was rapidly followed by an outburst of typhoid fever. This outbreak lasted from the beginning of February, 1896, to the middle of the following March. Just previous to the outbreak, January 25th, a heavy rain had caused the manure tanks at Walker's cattle byres, in the village of Walkerville, to overflow into the Detroit River. These byres are situated three-quarters of a mile above the intake of the Windsor water-works, which extends into the Detroit River. The inlet of the intake pipe was blocked with needle ice, and the valve at the shore being open, the water impregnated with manure entered and passed through the Windsor mains. An outbreak of fever followed, and from January 28th to March 17th, 102 cases were reported. We understand that, since then, the Windsor water commissioners have extended the water-works intake pipe into the main channel of the Detroit River, and have also ordered the construction of a filtering plant, guaranteed to remove ninety-five per cent. of the bacteria which infest the water.

In Chatham, Ont. (population, 9,437), the filtration of the water of the Thames, through Hyatt filters, secures a healthful supply of drinking water. The Thames flows through an agricultural country and receives a large amount of sewage. The annual report of the Medical Health Officer of Chatham, for the year ending December 8th, 1896, shows that there were twenty-one cases of typhoid fever reported, as compared with sixty-eight cases the previous year. This, in his opinion, is due to the increased number of the takers of filtered city water. In another paragraph he says: "The water-works are no longer an experiment. The water is clear, wholesome and abundant. We have not had any

cases of typhoid fever where the city water was used exclusively, and believe well-water to be the cause of all our cases."

At St. Thomas, Ont., which has a population of 10,794, the water supply is drawn from Kettle Creek, a stream which runs through an agricultural country, having sources of pollution similar to the Gayton River, only less, as the population is not so dense. After being allowed to settle in a basin, the water of the creek is pumped through Hyatt filters direct into the main. Well-water in St. Thomas is taken from above a solid bed of clay ranging from six to ten feet below the surface soil, and consequently is very impure. The citizens are taking advantage of the purer supply from the water-works. Since the introduction of the water-works, typhoid fever has become rare in St. Thomas, only one death being reported from that disease in 1893; thirty-eight cases with three deaths in 1895; twelve cases and 2 deaths in 1896.

From the consideration of these results in Canada, and others of greater importance, such as those obtained at Lawrence, Mass., we do not hesitate to say, that filtration of the water of the Gayton River is the true method to check the epidemic at King's Lynn. The *British Medical Journal*, in discussing the prevention of the epidemics at Maidstone and King's Lynn, simply advises the Local Government Board to effect a survey of the drinking water supply of England, and to appeal to the proper authorities to secure pure drinking water. This leisurely process of examining the gathering grounds of public supplies, and endeavoring to secure the passage of stringent regulations preventive of the defilement of streams, will, some time or other, no doubt, be productive of excellent results. In the meantime the inhabitants of places in "The tight little island" in which the supplies are suspected, will have to use boiled and filtered water, if they wish to keep the mortality from typhoid fever within reasonable limits.

J. J. C.

FOOTBALL AND PHYSICAL CULTURE.

OWING to the death of Mr. Gammon, at Atlanta, from injuries received in a football game, an agitation has been begun, which the newspapers say may result in the passage of a law, forbidding the playing of football in Georgia. It may be, that the Georgia chasers of the pigskin have been oblivious of "wisdom, justice and moderation" in their pursuit of the noble game; but they are not

singular in this respect, as the sporting records of all English-speaking countries attest. Neither is an enthusiasm for football confined to the young, it survives in the old, and we doubt, that severe injuries or even an occasional death will induce the legislator, who has played football in his youth, to denounce it on the statute book in his old age.

It is an inexpensive form of exercise and as a means of developing the muscles, it has acknowledged advantages. The principal muscles developed in football are those of the legs, thigh and hips in running and kicking the ball; in the rushes the back muscles are considerably used, and the arms in pushing. The lungs are also exercised very much.

Like cricket and lacrosse, football has the grand advantage of being played in the open air. Too much importance cannot be given to this feature; for all will confess, that the untrammelled oxygenation of the blood, the exhilaration resulting from the uncertainties of the game and the feeling of bodily conflict give an extraordinary impetus to cell-metabolism. It also suits the gregarious instincts of boys and young men who, in their sports and pastimes, love to crowd together.

It is more especially suited, however, to the circumstances of young men employed in a town at some trade or business and who assemble in a field or playground, on a Saturday afternoon, to engage in a lively and healthful form of exercise.

In schools and colleges football, lacrosse, baseball and cricket counteract, to some extent, the lack of systematic training in physical culture, and are some of the small mercies for which school trustees and masters of high schools, unprovided with gymnasias, ought to feel grateful. When, however, the physical culture of the young is provided for in an educational methodical system, training of all the pupils is evidently intended and not a game regulated by whim or the weather, serviceable to only a few of the stronger pupils, and often objectionable on account of the serious bodily injuries resulting therefrom.

In Canadian schools and colleges, football means little unless further provision is made for physical training especially during the winter months. In Rugby football thirty players are engaged in the game, which takes up a playground or large field. Pupils who are not playing are simply spectators, and often derive harm instead of benefit from lying about on the damp ground or exposed to the chill winds of spring or autumn, when, owing to their quiescent attitude, they are all the more subject to take cold.

While, therefore, from the natural advantages of the game and the craving for sports felt by young men living in cities, football will always be a popular form of exercise, we do not think, that, in schools and colleges, it should be allowed to take the place of systematic physical training, which includes all the pupils and, if properly conducted, does injury to none.

J. J. C.

LODGE PRACTICE IN THE PROVINCE OF QUEBEC.

At page 305 we publish a letter from Dr. Beausoleil, registrar of the college of physicians of Quebec. As will be seen, that college has come to the assistance of the struggling physician, who, in spite of his anxiety to live according to the dictates of the medical code of ethics, is still like other men compelled to pay his bills. The action of the Quebec college in this matter commends itself entirely to our sense of justice towards the physician and the lodge; it also shows, that the members of that college are capable of understanding the real, live issues affecting physicians in Quebec, and dealing with them in such a way as to redound to the advantage of medicine as a profession, without at the same time injuring the public weal.

In Quebec the public welfare calls for a well-educated physician, and the law insists that the professional aspirant must reach a certain standard of acquirements, before he is allowed to practise. In order to reach that degree of perfection, which distinguishes the educated physician from the quack, he is obliged to spend several years in study and a great deal of money.

He issues forth with his license, and, on beginning practice, is immediately confronted with the fact that he is called upon to deal out a measure different to that which was meted out to him. In striving for his diploma, he worked and paid as an individual, and as an individual he begins the struggle for professional existence; but a great many of the people he might naturally expect to have as clients are members of lodges, and he cannot obtain their patronage, unless he sells in a cheap market the knowledge which he purchased in a dear one.

If all these lodges or corporations, in the matter of fees for medical attendance, were obliged to deal with a guild or corporation of physicians, purely on a business basis, an arrangement mutually advantageous would, we think, be arrived at. That

lodges will continue to do business is certain. From the dawn of their history the Saxons have been famous for forming guilds for mutual assistance, and their descendants will continue the same work.

The individual physician in Ontario cannot expect to worst a lot of confident, well-organized, aggressive lodges, who do not care if every physician in the municipality were in beggary, so long as their wants are attended to. But by agitating for reforms, such as those mentioned in Dr. Beausoleil's letter, he can show that his nerve-centres are not so occupied with diagnosis and prognosis that he does not know the difference between well-being and failure, between having his rights and allowing other folks to walk over him.

We heartily commend the action of the Quebec college in this matter, and hope that the Ontario college may, after due consideration, see fit to follow so excellent an example. J. J. C.

THE NEURASTHÉNIC, OUR WORST PATIENT.

PERHAPS of all the cases that come under the physician's care, and that tend to develop patience enough in the soul of him, to assure him of at least one feather toward a future pair of wings, the Neurasthenic may be placed in the foremost rank. The nervous patient is not always a man, oh, no; although when he is of the male persuasion the physician truly realizes the excellent use to which his football training might be put; but of course the grand possibilities of physical force are hurriedly dismissed from his mind, and for the moment, he becomes a homeopathist and contents himself by using moral suasion. But when the patient is a creature "most divinely fair," or to quote Kipling the recent,

"A rag, a bone,
And a hank of hair,"

the physician soon realizes the utter ineffectuality of prose, poetry or any other sort of mental bric-a-brac. So pitying, yet believing her sufferings to be partly imaginary, he stands almost helplessly by.

It is not our purpose in the brief space at our disposal to deal with nervous diseases transmitted by heredity. Despite the theory of Weismann, we firmly believe that certain nervous affections acquired by the parent under circumstances of shock or intense

mental strain *are* transmitted to the child, and so it unfortunately starts on life's pathway already freighted with a nervous affection. As every effect must have a cause, let us glance at one or two of the many causes that lead up to and tend toward the development of an intensely nervous temperament in the average young girl, the ordinary product of our civilization, who enters the world untrammelled by disease.

Passing from the age when the nurse peoples the world with "Goblins, Fairies and Boo-men," and the never-to-be-forgotten day when, assured "it won't hurt at all," the unsuspecting tot submits to having a tooth extracted, on to the time when the necessity of obtaining an education has come, and finally a boarding school is selected. At many of the young ladies' boarding schools the pupils are aroused at half-past six o'clock these dull grey mornings, and, half asleep, often the room very cold, they perform their morning ablutions (a sponge bath) in icy cold water. (Warm water is not provided, as a rule, in these schools, we understand, except once a week for a plunge bath.) Then prayers, breakfast, and usually a practice hour, and, wearily, page after page of exercises are plodded through and then a rendition of, perchance, Gottschalk's "Last Hope" is pounded out by stiff, tired fingers, the variations sounding as though all they needed was an odd pistol shot "on the third beat of the bar" to fully interpret the mood of the player, and so the exquisite harmony evolved from the mind of a master becomes a thing to twist, tear, and lacerate the nerves of the girl performer, and she starts at every noise, except the awful cannonading she is herself making on the unresisting piano. Then various studies crowd each other, irrespective of the temperament or adaptability of the individual young girl, and constantly before her mind is the thought of the approaching "exam.," and so at high pressure and full speed this educational process goes on for four or, possibly, five years. Then still in her teens a *débutanté* is launched on the social world; the young life [that ought to be full of genuine pleasure and fun, whose nights should—

—"Be filled with music
And the cares that infest the day,
Should fold their tents, like the Arabs,
And as silently steal away."]

is too often a weariness too great to be borne, the constitution is unequal to the strain, and the tired nerves refuse to respond to the merriment of dancing feet, and the round of gaiety becomes an endless task. The tired child of this seemingly tireless age then

comes to the physician, and says, "I'm so tired and so very nervous." Her complaint is all too true, although she usually imagines herself to be worse than she really is. The physician then makes his bow, realizing how difficult the work before him, and begins the study of the many idiosyncrasies of "the very nervous patient." And may the owl help him.

W. A. Y.

Correspondence.

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

LODGE PRACTICE IN THE PROVINCE OF QUEBEC.

To the Editor of THE CANADIAN JOURNAL OF MEDICINE AND SURGERY.

DEAR SIR,—Yours dated 2nd November is quite a surprise to me. A first letter to which you make allusion never came to my notice, and I thank you cordially for having repeated it. To resume in a few words the motives of our action *re* lodge-doctors, I may say that having remarked the very humiliating position of many of our licentiates acting as medical examiners and advisers to different benevolent societies, we decided to come to their rescue and to put them on equal footing and dignity with the whole profession. This we did by the enactment of a uniform *minimum* tariff of professional emoluments. For instance, instead of \$1 the society or lodge doctor will receive \$3 for the examination of a candidate to some society or lodge.

Most of the lodge doctors, besides receiving only \$1 for the above examination, used to engage themselves to treat each successful candidate during twelve months for the paltry sum of \$1 to \$1.50. Our Board decided to put in severe application our code of medical ethics, which prohibits a medical doctor to engage his services for an advance stipulated sum, whatever it may be. It was necessary, too, to insure the sanction of said enactment to punish the faulty practitioners. So we decided that for an offence against one or the other rule and regulation, the irregular practitioner would be deprived of his license for a period of not less than three months. This is *en résumé* what we did. I am glad that you esteem that we did a *magnificent thing*. I expect that it will bring magnificent results. The lodges are complaining; let them complain if they are pleased so to do. When they are through they will reflect and swallow the pill. In the hope that these may be acceptable to you, I remain, dear sir, your very devoted

Montreal, Nov. 5th, 1897.

J. M. BEAUSOLEIL, M.D.

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LAST MONTH'S LEADING ARTICLES.

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- Appendicitis in Relation to Disease of the Uterine Adnexae and Pregnancy. J. B. Deaver, M.D. (22).
- Adeno-Carcinoma of the Nose. F. E. Hopkins, M.D. (3) Nov. 18th.
- Apparently Typhoid Fever associated with Tuberculosis and Nephritis. H. B. Allyn, M.D. (14) Nov. 6th.
- Anteverted Wandering Liver. R. Crawford, M.D. (2) Nov. 6th.
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- Blindness, due to Acute Poisoning from Overuse of Jamaica Ginger, etc. A. G. Thomson, M.D. (49).
- Brain Tumours and their Removal. M. A. Starr, M.D. (11).
- Basal Meningitis. J. Carmichael, M.D. (7).
- Conservation of the Ovary. B. Sherwood-Dunn, M.D. (58).
- Congenital Dislocation of the Hip. E. H. Bradford, M.D. (27).
- Cancer of the Breast Involving Axilla and Walls of the Chest. G. Wachterhagen, M.D. (30).
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- Diphtheria Antitoxin. H. S. Slack, M.D. (4).
- Diagnosis and Treatment of Empyema. H. J. Patterson, M.D. (8).
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- Diseases of the Mastoid. F. S. Milbury, M.D. (1) Nov. 13th.
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- Gonorrhoea and its Control. J. F. W. Ross, M.D. (58).
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KEY TO MEDICAL PUBLICATIONS.

1. Medical Record, N.Y.
2. The Lancet, London, Eng.
3. New York Medical Journal.
4. Atlanta Medical and Surgical Journal.
5. Maryland Medical Journal, Baltimore.
6. Medical Summary, Philadelphia.
7. Scottish Medical and Surgical Journal, Edin.
8. Journal of Medicine and Science, Portl., Me.
9. The Railway Surgeon, Chicago.
10. Archives of Pediatrics, N.Y.
11. Montreal Medical Journal.
12. Philadelphia Polyclinic.
13. International Journal of Surgery, N.Y.
14. Medical and Surgical Reporter, Philadelphia.
15. American Medical Journal (Eclectic), St. Louis, Mo.
16. Medical Bulletin, Philadelphia.
17. Medicine, Detroit.
18. New England Medical Monthly and The Prescription, Danbury, Conn.
19. Canadian Medical Review, Toronto.
20. The Laryngoscope, St. Louis.
21. The Medical Age, Detroit.
22. Buffalo Medical Journal.
23. Cleveland Medical Journal.
24. The Therapeutic Gazette, Detroit.
25. Langsdale's Lancet, Kansas City.
26. Pacific Medical Journal, San Francisco, Cal.
27. American Journal of Medical Science, Phila.
28. The Maritime Medical News, Halifax.
29. The State Hospitals' Bulletin, Utica, N.Y.
30. Brooklyn Medical Journal, N.Y.
31. Pediatrics, N.Y.
32. Bulletin of Pharmacy, Detroit.
33. Magazine of Medicine, Atlanta, Ga.
34. North American Practitioner, Chicago.
35. St. Louis Medical and Surgical Journal.
36. Chicago Medical Recorder.
37. Medical Press and Circular, London, Eng.
38. Medical Brief, St. Louis.
39. Columbus Medical Journal, Columbus, O.
40. Chicago Clinical Review, Chicago.
41. The American Therapist, New York.
42. The Pacific Health Journal, Oakland, Cal.

43. The Dietetic and Hygienic Gazette, N.Y.
44. La France Medicale, Paris.
45. Medical Standard, Chicago.
46. The Medical Times, New York.
47. La Presse Medicale, Paris.
48. Le Progres Medical, Paris.
49. Quarterly Journal of Inebriety, Hartford, Conn.
50. American Journal of Surgery and Gynecology, St. Louis.
51. The Homoeopathic Physician, Philadelphia.
52. Matthews' Quarterly Journal of Rectal and Gastro Intestinal Diseases, Louisville, Ky.
53. California Medical Journal (Eclectic), San Francisco, Cal.
54. Journal of Eye, Ear and Throat Diseases, Baltimore, Md.
55. Chicago Medical Times.
56. The Indian Lancet, Calcutta, India.
57. The British Medical Journal, London, Eng.
58. Annals of Gynecology and Pediatrics, Boston.
59. The American Gynecological and Obstetrical Journal, New York.
60. American Practitioner and News, Louisville, Ky.
61. The Medical Examiner, New York.
62. The Birmingham Medical Review.
63. The Alienist and Neurologist (Quarterly), St. Louis, Mo.
64. The Woman's Medical Journal, Toledo, O.
65. The Lancet, N.Y.
66. The Hypnotic Magazine, Chicago, Ill.
67. The American Journal of Insanity, Baltimore, Md.
68. The Tri-State Medical Journal and Practitioner, St. Louis, Mo.
69. Medical Review of Reviews, 252 Madison Avenue, New York City.
70. International Medical Magazine, Philadelphia, Pa.
71. Western Medical and Surgical Gazette, 620 14th Street, Denver, Col.
72. The Medico-Legal Journal, 39 Broadway, N.Y.

W. A. Y.

The Physician's Library.

Spinal Curves. By NOBLE SMITH. Second edition. London: Smith, Elder & Co. 1897.

In this book Mr. Smith lays the profession under obligation. Nowhere else is so much clinical and pathological material available as in London; and the author lays many hospitals and museums under tribute to furnish descriptions of cases and specimens that he may lay a good foundation for his conclusions. The book is a veritable arsenal from which any of us may draw, and few can be so favored as the author in having access to such stores of material. The book is discursive rather than dictatorial; and while this will be appreciated by the specialist, the man who is busy with general practice will find it tedious and will miss the definiteness and conciseness of instruction which are for him most helpful. On page 18 the author goes out of his way to say a word against the treatment of weak spines and commencing lateral curvatures by exercises. A more legitimate criticism which the author might have made is that cases are admitted into the gymnasium for treatment in whom spinal curvatures exist, and in which cases this diagnosis should have been made and the patient consequently have been fitted with a brace and kept at rest. While, in the main, the remarks concerning mechanical support are highly valuable and are marked by appropriate criticisms of methods employed, yet his unqualified recommendation of the "adaptable metal splint" (of Chenevix) as modified by the author is calculated to produce a dangerous confidence in those not familiar with spinal braces. All such as are constructed on the principle of that recommended are defective in two points: (1) because the shoulders are so movable on the trunk as to afford an imperfect anchorage for the brace above, and (2) a narrow band about the pelvis forms a much less stable base of support than that which grasps the pelvis when a properly fitting plaster of paris corset is employed. The advice given to trust this "adaptable metal splint" for fixation, without any head support when the disease is as high as the third or fourth dorsal, or in some cases the first dorsal vertebra, is certainly not in accord with the observations of American surgeons (p. 81). The author's remark that the Sayre's jury-mast is a very ineffective machine is not too strong. No one should be encouraged to rely upon a means so inefficient to obtain rest for the upper vertebrae. The author's plan of securing rest for the cervical spine by a head band, attached and supported as he has described it, is certainly one of the best. Out of the richness of his experience and the fulness of his opportunities, the author gives us a book which no surgeon can afford to be without, but whose recommendations in some instances must be guardedly adopted.

B. E. M.

A Text-book of the Practice of Medicine. By JAMES M. ANDERS, M.D., Ph.D., LL.D., Professor of the Practice of Medicine and of Clinical Medicine in the Medico-Chirurgical College, Philadelphia; Attending Physician to the Medico-Chirurgical and Samaritan Hospitals, Philadelphia, etc. One volume. Illustrated. Philadelphia: W. B. Saunders & Co.; 1898.

This is a neat, compact volume of 1,259 pages. It is a good clear type, and has several good illustrations. The historical development of the subject

has been omitted to make room for the more practical part of the work. The clinical history is full and the work throughout is especially strong in diagnosis, differential diagnosis and treatment. Several differential tables are given, which will prove very useful to the student. Under etiology, bacteriology takes a prominent place. The metric system is used, in brackets, with the English, where dosage is given. The work is very full and complete and free from "padding," which is a pleasant contrast to the large systems of medicine of the present day. The author has aimed at, and we think successfully, giving an up-to-date work in one volume, and at the same time comprehensive enough for the student or busy practitioner who wishes to keep abreast of the times, but has not the leisure to wade through the larger systems. W. J. W.

Essentials of Bacteriology: Being a concise and systematic introduction to the study of Micro-organisms for the use of Students and Practitioners. By M. V. BALL, M.D., Bacteriologist to St. Agnes' Hospital, Philadelphia. Third edition, revised, with eighty-one illustrations, some in colors, and five plates. Philadelphia: W. B. Saunders, 925 Walnut Street; 1897. Canadian Agents, J. A. Carveth & Co., 413 Parliament Street, Toronto, Ont. Price, \$1.00.

This work is conveniently divided into two parts and an appendix. In Part I. we find general conditions and technique fully taken up. Part II. treats of the special bacteria pathogenic and non-pathogenic found in man and animals. The appendix contains a description of the different yeasts, moulds and fungi; the mode of examining, bacteriologically, air, water, soil, organs and cavities of the human body, with a valuable table containing the chief characteristics of the principal bacteria known, the latter very useful to the student. In the section on pathogenic bacteria, there is an excellent article on diphtheria and its anti-toxin treatment. The many plates and illustrations are clear and true, the type good, and we congratulate the editor, publisher, and their Canadian agents, J. A. Carveth & Co., on this handy volume. W. H. P.

Pathological Technique: A practical manual for the pathological laboratory. By FRANK BURR MALLORY, A.M., M.D., Assistant Professor of Pathology, Harvard University Medical School; Assistant Pathologist to the Boston City Hospital; Pathologist to the Children's Hospital, and to the Carney Hospital and James Homer Wright, A.M., M.D.; Director of the Laboratory of the Massachusetts General Hospital; Instructor in Pathology, Harvard University Medical School. With 105 illustrations. Philadelphia: W. B. Saunders, 925 Walnut Street; 1897. Canadian Agents, J. A. Carveth & Co., 413 Parliament Street, Toronto, Ont. Price, \$2.50.

A good treatise on pathological technique has been a long felt want, and in this valuable contribution by Drs. Mallory and Wright the gap is well filled. A considerable portion of the book is devoted to the very important subject, post-mortem examinations. Here the authors have given us a careful and thorough description of the *modus operandi*, with a short description of each part and organ. They have considered it advisable to deviate a little from the usual method of taking up this subject, by presenting it in a consecutive manner, thus emphasizing the importance of connecting bacteriological, histological and chemical investigations. The special methods employed in clinical bacteriology and pathology will be found of great assistance to clinical lecturers. The work is well gotten up on good paper, the illustrations are good, and the substance most practical throughout. W. H. P.

[PUBLISHERS' DEPARTMENT.]

FISTULA IN ANO OF TEN YEARS' STANDING RAPIDLY HEALED.

BY J. T. BIGGS, M.D.

JOHN HATTER, of Stamford, Conn., American, age 39; admitted at Sound View Hospital, September 6, 1897.

Examination revealed a complete fistula in ano, two and a half inches in length, of large calibre, and of ten years' standing. Around the anus, a complete ring of hæmorrhoids. Beyond this, two inches up within the rectum, were four ulcers, from the size of a split pea to that of a dime. Patient had been a large man, weighing 195 pounds, with great strength and vitality; but notwithstanding this, and the efforts of many physicians with many and various treatments during the last ten years, the course of the case had been steadily downward. Complicating this pathological picture, there was chronic constipation, with hepatic torpor. The patient being in an extremely nervous condition, it was decided to put him on a few days' preparatory treatment before operating. After regulating the secretions, he was put on two drachms phosphate of soda in hot water, night and morning, and a diet of bovine and milk, with rice; the bovine a teaspoonful in half a glass of milk, every two hours; the rice three times a day.

September 14th, after preparing the patient by thoroughly washing out and sterilizing the parts, and anæsthetizing him, a double operation was performed, which consisted in a division of the sphincter muscle through the fistula and scraping out the sinus; after which a modified Whitehead operation, one inch of gut being removed. The two larger ulcers, an inch and a quarter from the anus, remained. These were touched up with a 25 per cent. solution of pyrozone. The wound made by removal of the fistulous sinus was then thoroughly irrigated with hot Thiersch solution, and packed, as well as the rectum, with sterilized gauze saturated with iodoform-bovine. This packing was changed every twenty-four hours, up to September 20th, after which pure bovine was employed in the same way, changing the dressing three times a day. Before each dressing, the wounds and ulcers were washed out with Thiersch, and then thoroughly cleansed by the bovine-peroxide process. On the 22nd, the stitches were removed, the line of union being perfect around the anus, and the fistulous wound rapidly filling under the topical blood nourishment. On the 28th the ulcers in the rectum were entirely healed, leaving now only a small surface over the site of fistula unhealed. On the 30th, this wound was also nearly healed; patient having regular daily defecations normal in quantity, and feeling altogether like a new man. October 3rd, discharged absolutely well.

Remarks: This case is unusually interesting from the fact that all other treatments—prominent among them Professor Pratt's dilatation—had been employed during the long course of the disease, but no results whatever could be attained. Also from the bovine or topical blood nourishment producing such a rapid repair, while internally keeping up the patient's strength throughout, as his principal diet. The sequel will be under observation and report.

IRREGULAR MENSTRUATION IN YOUNG WOMEN DUE TO ANEMIC CONDITIONS.

BY H. EDWIN LEWIS, M.D.,

Burlington, Vt., Resident Physician Fanny Allen Hospital.

THE young physician just starting into practice cannot help but be impressed with the frequent occurrence of menstrual disorders in young girls during the period just succeeding the age of puberty. The metamorphosis of a girl into a woman, consisting as it does of structural and functional changes throughout her body, in many instances leaves behind pronounced alterations in the quality or even quantity of the blood current. How common it is to have a mother bring her daughter to the physician and say, "Doctor, I would like to have you do something for my daughter. For nearly a year she has been losing interest in everything and seems to be completely worn out. She has no appetite and absolutely no ambition for work, study or play. She does not lose flesh or grow thin at all, but her color is so poor and she seems so weak that I fear she is going into consumption."

Inquiry on the part of the doctor elicits the further information that the young lady in question is sixteen years old or thereabouts, and that she is a school-girl. A year or two ago she first menstruated and since that time has been unwell only twice, or at irregular intervals varying anywhere from three to nine months. Her bowels are either constipated, or the reverse, and she may complain of headaches, vertigo, palpitation of the heart, insomnia, indigestion, etc., etc. The pale face with its sallow greenish tinge, the bleached tongue, the colorless conjunctivæ and finger nails, tell well the tale of impoverished blood. Combine the history with the objective symptoms and the diagnosis is clear of chlorosis or green-sickness. The absence of cough or pulmonary symptoms excludes the dreaded "consumption," but we have instead a condition of the blood in which the essential constituents are diminished and the whole quality of the life-giving current so depreciated that the various organs of the body are unable to perform their normal functions. The uterus is small and illy developed and the supply of rich blood it so urgently requires in its developmental state is not to be had. Is it any wonder, then, that the chlorotic girl does not menstruate

regularly? It is a great wonder that she ever menstruates at all. Correct the anemic or impoverished condition of her blood and the physiological function of her uterus will be resumed as naturally as that of any other organ.

How this chlorotic condition can best be corrected is the next question and one which because of its frequency concerns every practising physician. Countless remedies have been presented to the profession, but far and foremost above them all is iron, notwithstanding certain high authority to the contrary. Arsenic is certainly valuable, but ranks far below iron or even manganese in the therapeutics of anemia. In order to be most efficacious, however, the iron should be in its most readily assimilable form, and until recently the carbonate and albuminate have been supposed to present this requisite in the highest degree. But since manganese has grown in favor as an adjuvant to iron, a new preparation has been submitted to the medical profession and *in every way it has proven itself an ideal one*. I refer to Dr. Gude's preparation of the peptonate of iron and manganese, known as Pepto-Mangan. This admirable combination of iron and manganese is readily taken into the human economy and appropriated to its needs, without deranging the weakest alimentary tract, or hindering in any way the normal processes of digestion, assimilation and excretion. It should be given in water or milk in teaspoonful doses after meals, and its administration is invariably followed by the results desired.

But in order that the medical treatment of chlorosis may be most valuable and efficient, it should be augmented by auxiliary treatment consisting of careful attention to diet and exercise. It goes without saying that the food of an anemic girl should be most nutritious and particularly abundant in albumen, while the exercise should aim to provide greater quantities of oxygen in the form of pure air, without lowering the vitality. Walking, skating, tennis or bicycling in moderation are all able to supply the demand for exercise.

Treatment laid down on the above lines, followed out in every instance with good habits of hygiene and a careful observance of Nature's demands, will regulate the various functions of the body, and the menstrual function will prove no exception to the rule.

The following cases will substantiate the above:

CASE I. Miss C. S. K.—Seventeen years old. Decidedly anemic and much troubled with constipation. First menstruated at fourteen, since which time she has never been regular, flowing profusely sometimes twice a month, and other times going three or four months without menstruating at all. Has frequent fainting spells and a decided anemic heart murmur. At time of coming under observation had not menstruated for two months and ten days.

Treatment consisted of a regulated diet, tablets of aloin, strychnine, belladonna and cascara sagrada, one each evening until bowels were regular, and teaspoonful doses of pepto-mangan (Gude) after meals. Gradually the fainting spells and heart symptoms disap-

peared, and on the fifteenth day after commencing treatment she began to menstruate, the flow being natural in quantity and continuing four days. Treatment was continued and twenty-nine days after she menstruated again, continuing this time five days. Soon after this the pepto-mangan was stopped. From now on, up to the present time, a period covering three months, her menses have appeared regularly every twenty-eight days.

Her whole appearance is changed and in every respect she appears well and strong. Period of administration of pepto-mangan, fifty-five days.

CASE II. Miss K. M.—Aged twenty. Menstruated first at age of fifteen and was fairly regular for three years, but since an attack of typhoid fever two years ago, has never had a menses when she was going to be unwell. Patient was not thin, but face was pale and yellowish, hands and feet were cold “all the time,” and her whole condition was one of “*blood poverty*.” Complained of frequent attacks of diarrhoea following constipation.

Treatment consisted of plenty of out-door exercise, good food with abundance of milk, and pepto-mangan (Gude) in teaspoonful doses after meals.

Her restoration to health has been rapid and satisfactory. She has menstruated three times since beginning treatment, the longest interval being thirty-one days. Says she is all right and her appearance certainly sustains her words.

In this case the administration of pepto-mangan covered a period of thirty-six days.

CASE III. Miss D. L.—School-girl. Aged fourteen. For two years she had been troubled with headaches, dizziness and short breath, fainting away at the slightest provocation. Had no appetite and as her mother expressed it, “for the last six months had been going down hill pretty fast.” Had been treated by a physician for heart disease, but received no benefit. Menstruated first seven and a half months ago, “but had not seen anything since.”

Examination showed heart to be normal, although it was a trifle fast, and a slight murmur could be determined when patient was in a recumbent position, evidently anemic in origin. Lungs proved to be all right.

Her general condition was anemic and she was put on pepto-mangan (Gude) a teaspoonful after meals, and sent into the country where she could be out of doors most of the time and have plenty of eggs and milk. A letter from her mother says that she has changed so that she can hardly believe that it is the same girl. Furthermore, her menses appeared twenty-one days after starting the pepto-mangan and returned again twenty-nine days after. The pepto-mangan was ordered stopped and since then I have not heard direct from the patient, although I learn from her father that she is “perfectly well” and coming home soon.

Period of administration of pepto-mangan, fifty-six days.

CASE IV. Miss L.—Aged eighteen. Had never menstruated. Her general appearance was one of profound anemia. A careful examination eliminated any abnormality of genital apparatus. Organs normal in relation, but undersized. Prescribed pepto-mangan in teaspoonful doses after meals and gave general directions as to diet, etc. Began to menstruate thirty-two days after beginning treatment, the flow continuing one week. Twenty-nine days later she menstruated again. At the present writing she is still under treatment and is due to menstruate in seventeen days. Her whole condition is very much improved.

NUTRITION IN TUBERCULAR CONSUMPTION.

BY HUGO ENGEL, M.D.

WHILE there can be no longer the least doubt that in creosote we possess one of the most potent drugs for the cure of tubercular consumption, like all really powerful and valuable remedies creosote has its disagreeable drawbacks and by-effects. It not only does not agree with many patients, but in some it totally destroys all appetite and seems to ruin digestion.

As soon as we have reached a certain dose the stomach gives way, the patient has no appetite, nausea, vomiting and diarrhoea set in, and the remedy which promised such beneficial results has to be stopped, when, a week or ten days later, the increased cough and expectoration, the return of the fever, the loss in weight and the multiplication of the bacilli in the sputum prove to us the renewed onward march of the dreaded malady.

Some time ago I had such a case under my charge. The creosote had to be stopped, and while I was endeavoring to re-establish his appetite and restore his digestive powers, the patient rapidly lost weight. His disease was evidently making rapid progress. As soon as his digestion had improved, I tried by every means at my disposal to bring about a better nutrition, but the success was insignificant. The patient always was thirsty, and I was looking about for some other nutritious fluid—as those employed had not answered their purpose, and as he had an insurmountable aversion to milk—when I thought of a sample of Pabst Malt Extract, which Mr. L. M. Evans, the Philadelphia agent, had presented to me, and I advised the patient to try the extract, first a wineglassful *ter die*, diluted with water and with some sugar added. Fortunately the patient liked the taste and flavor, his stomach bore the preparation well, and by the end of a week he took daily two bottles of the extract, no longer diluted.

This malt extract, which possesses the one good quality that however long continued it does not cause an aversion in the patient, evidently possesses great nutritive value, for the patient gained

three and one-half pounds the first ten days. I then advised him to take at the middle of each meal the creosote-carbonate in the malt, and to begin with two drops *ter die*. In this way I succeeded in gradually bringing the dose of the creosote up to twenty drops *ter die*, without inducing any digestive disturbance. As that dose seems to have achieved what the creosote was intended for, I have not further augmented it, and the disease has evidently come to a standstill for the last four months.

**SYPHILIS AND SEXUAL NEURASTHENIA: THEIR
TREATMENT WITH THE GOLD SOLUTIONS.**

BY HERMAN F. NORDEMAN, M.D.

Adjunct-Professor, Genito-Urinary Diseases, at the New York Polyclinic, Surgeon to New York Surgical and Genito-Urinary Hospital, etc., etc.

WITHIN the past six months my attention has been repeatedly called to the gold solutions (known as arsenauro and mercauro) as offering results in my special line of practice not heretofore obtained by treatment commonly in vogue. I am skeptical in regard to special therapeutic agents as a rule, such claims being made by the manufacturer as would tend to preclude confidence rather than produce it.

Knowing the reputation of G. Frank Lydsdon, M.D., whose writings are so authentic and forcible, and being attracted by his paper read before the Chicago Academy of Medicine, in October, 1894, I determined to test these alteratives thoroughly in my service at the New York Polyclinic, and thus learn from personal observation whether results obtained would warrant me in suggesting their use to the number of practitioners who attend this institution. I must say that the outcome has been beyond all expectations.

The classes of cases that came under my observation were as follows: Chronic masturbators, those suffering from the results of incomplete coitus, or certain degenerates, the victims of physical excitants leading to complete or partial impotence. These are the milder classes of cases so ably described by Kraft-Ebing in his classical work on psychopathia sexualis, and by Schrenk-Notzing in his *Suggestive Therapeutics*. These patients present themselves with the usual symptoms, *i. e.*, profound anemia, neurasthenia, relaxed scrotum, etc., etc. In other words, they belong to the list of sexual neurasthenics. They feel the desire for copulation, but the act is unsatisfactory in that the moment the organ becomes erect, ejaculation takes place, rendering the sexual congress incomplete and disgusting. In several cases I began the administration of arsenauro in five drop doses, increasing daily until the patient reached ten drops, three times daily, continuing this dose for at least eight weeks. It has been interesting to note the excellent

general appearance of these individuals after about two weeks of treatment. They were full blooded, hearty and buoyant, differing so markedly from their appearance when they presented themselves—an appearance so familiar, so unmistakable to medical men. I think without doubt that arsenauero is the most pronounced aphrodisiac I have ever seen, producing this effect in both sexes. Thus after noting the effect I was led to extend its use in my private practice.

The nervous debility so marked in the sexual neurasthenic is positively controlled by arsenauero. As for mercauro, I am in a position to attest its great value in cases requiring tonic mercurial treatment. I refer to those instances where, in the initial lesion, we give either the protiodide of mercury or inunctions of the ointment. Our patients often rebel at a continuation of this treatment. It is here that I put the patient on mercauro, beginning with five drop doses and increasing a drop a day until evidences of arsenical intolerance are established. Look for puffiness under the lids which may appear when arriving at eight, ten, fifteen or twenty drops, three times daily, or the intolerance of the gold may be presented—*i. e.*, frontal headache, a tendency to vertigo, and increased saliva. When any of these symptoms are present, decrease the dose until they disappear, then resume and persist in the treatment—say for at least six weeks without omission. I find these patients who are run down, as it were, under so-called tonic mercurial treatment, rapidly build up and show such an improvement that I continue them right along with mercauro and apparently abort the later specific lesions—*i. e.*, locomotor-ataxia, hemiplegia, etc. In mild forms of syphilis with little or no glandular involvement, and in mixed sores, I immediately resort to mercauro, and I have never seen its equal as a remedial agent in syphilis. It is pre-eminently a new therapeutic agent, the physiological effect being *subjudice*. In latent lesions it is positively the best remedy. By abundant experience I am settled in my conviction as to its value, and more particularly so, when the iodides are not tolerated. We meet many cases that present an idiosyncrasy, either with little or much of the iodide of potash. In these cases, I give mercauro at once, and I am satisfied that my colleagues will agree with me as to its value.

Squamous, ulcerative and tubercular syphilides, hyperplasia and chronic mucous ulcerations are the special indications for mercauro. In lesions of the skin, such as a tendency to eczema where syphilis coexists, this is a most powerful antidote therapeutically. In chronic catarrhal cystitis, as the result of prostatic hyperplasia, arsenauero is a very valuable remedy. I have seen cases which have existed for years where the bladder would only contract sufficiently to expel a portion of the urine, leaving a residue to undergo ammoniacal decomposition, become absolutely well under the use of this combination. Seemingly it stimulates the viscus to contract, and I have noted the same result in the hypertrophied

prostate of the aged, where atony of the bladder existed. It has been remarkable to note the vigor this solution gives to the organ. Of course mercauro must be given preference where a history of specific disease exists, or is suspected. I feel under obligations to those of my colleagues who attracted my attention to these products, and I hope that some one among my hearers at the Polyclinic will in time work out their physiological effect. They are certainly valuable curative agents and deserve a careful trial. As illustrative, I mention an interesting case. Mr. R. J., aged thirty-two, widower, sent to me by Dr. L., to be examined for diabetes. He had at times, as the doctor informed me, shown traces of sugar in his urine. The patient was told by Dr. L. and other physicians in New York that his malady was diabetes—the result being that he came to me in a state of extreme mental perturbation, almost verging on nervous prostration.

Examination of urine revealed $\frac{1}{4}$ to $\frac{1}{2}$ of one per cent. of sugar, high specific gravity and hyperacidity. His family history was good, both parents alive and brothers and sisters healthy. He complained of violent headache, loss of sleep, in fact, he was in a profoundly anemic condition, and suffered from neuralgias in his arm, shoulders and lower extremities. Examination revealed hyperesthesia of the skin, tenderness along the lumbar spine, and last but not least, a well-marked specific macular eruption. Recently coitus was denied absolutely. Upon examining the throat mucous patches were discovered on the soft palate and a well-defined chancreous sore on the right tonsil.

The cervical glands were markedly enlarged. I made the diagnosis of syphilis, as the case was clearly this, and the subsequent treatment proved it beyond any doubt.

The patient was placed on a full diet, allowed some claret as he was sorely in need of a general tonic, and mercauro prescribed in ten drop doses three times daily, increasing one drop every other day until he was taking twenty drops three times daily, which was his physiological limit. His general condition began to improve in a very short time—sugar disappeared entirely, the eruption and sores improved, headache and nervousness left him, and he gained in flesh and strength. Here then was a typical case of the beginning secondary stage of syphilis benefited by mercauro, the case being one in which the use of other well known mercurials could not have brought about such a result. I mention this case to show the good effect this mercurial tonic will produce, especially in syphilitic anemias.

1309 Madison Ave., New York City.

DOCTOR,—You want facts about hypnotism. You want to test suggestive therapeutics. You want the *Hypnotic Magazine*. 10 cents per copy. \$1.00 a year, including premium book on Suggestive Therapeutics. Psychic Publishing Co., 56 5th Avenue, Chicago.

PHYSICIANS who, because of their heart-depressing effects, have often been compelled to cease the administration of antipyretics, even in cases in which pyrexia or hyperpyrexia meant great added danger to their patients, will hail with pleasure the heart-strengthening antipyretic and antineuralgic Antitoxine, and will use it with confidence in view of the powerful testimony of a late President of the Glasgow Obstetrical and Gynæcological Society, who after using sixteen ounces of antitoxine in nine months, voluntarily writes the manufacturers as follows :

The Manager,
The British Antitoxine Manufacturing Co.

Glasgow, W., September 5th, 1896.

DEAR SIR :

I have found Antitoxine gives immediate relief in severe Facial Neuralgia after Phenacetine had failed. After having given Antitoxine a thorough trial—I have used 16 ounces during the last 9 months—I rarely prescribe Antipyrin now and almost as rarely Phenacetine. I believe that the 4 Antipyretics which are at present best known to English medical men should be placed thus in order of merit so far as they relieve pain, headache, Facial Neuralgia, Dysmenorrhœa and reduce ever—

- | | |
|-----------------|----------------|
| 1. Antitoxine. | 3. Antipyrin. |
| 2. Phenacetine. | 4. Antikamnia. |

I have frequently given Antitoxine in cases where I would not dare give Antipyrin ; weak hearts, etc.

I have never seen the slightest bad results from its administration.

I have used it recently with great success in cases of flushing at the Menopause, 1 tablet 2 or 3 times a day.

I am, dear Sir,

Yours faithfully,

* _____, M.D.,

Sometime President Glasgow Obstetrical and
Gynæcological Society.

* The original signed letter, of which the above is a copy, will be sent for perusal to any physician who desires to see the signature, provided he promises to immediately return it.

Such testimony as this establishes beyond question the claims of the owners of Antitoxine that it is the heart-strengthening antipyretic and antineuralgic, and that it can be relied upon to act powerfully and safely in all cases regardless of heart conditions. The reduction in its price to \$1.00 per ounce also places it within the reach of all.

WE direct the attention of the medical profession to the advertisement of the Abbott Alkaloidal Co., of Chicago, Ill., appearing on page xxxiii. of this issue. The Waugh Abbott Intestinal Antiseptic has met with the undoubted endorsement of the profession, not only on the other side of the line, but elsewhere, and will be found to be all that is professed for it. As an antiseptic in intestinal derangements it is prompt and effective. The firm give in their advertisement the ingredients of this preparation, so that nothing is hidden from the profession. We doubt not that in typhoid fever Waugh's antiseptic will prove even more than beneficial, and we think that medical men should at least give it a trial.