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Editor

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LIST OF CONTRIBUTORS TO VOLUME XL.

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No 1.

A NEW OPERATION FOR EXTREME CASES OF SEPTAL DEFLECTION, WITH PRESENTATION OF A SUCCESSFUL RESULT IN AN ADULT CASE.*

By J. PRICE-BROWN, M.D., Toronto.

IN the wide domain of general operative surgery the object has always been to remove only organs and tissues that are diseased. When displacement is the principal condition presenting itself, the organ being still histologically normal, it has been the rule to make the restoration of that organ to its normal position the chief object of surgical treatment. This truth is so universally recognized among surgeons that operations upon the various organs and region of the body are done much in the same way all the world over, the difference in technique being more in relation to the principles of hygiene adopted by the surgeon than the method in which he does the operation.

This, however, cannot be said with regard to that little plate of bone and cartilage which we term the nasal septum. This troublesome and seemingly insignificant little body has a persistent habit of getting twisted and turned out of its normal position—not by its own will but by the will of the surrounding tissues. It is a victim of circumstances over which it has no control, and being crowded out of the place that it should occupy, it has been pleading with the rhinologist for generations for the restoration of its vested rights.

The pleading, in a measure, has not been in vain. For more than a score of years rhinologists have been vying with each other in the advocacy of various operations to give the desired relief. I need not enter into an enumeration of these, for their name is legion. Each has been attended by a certain measure of success. Probably all of them have been followed by good results in minor cases, and some by excellent results in cases that were extreme. Still, the outcome has not been what rhinologists have been so earnestly seeking—a reliable means by which extreme deflection could be readily removed and the cartilaginous

* Read at the annual meeting of the American Laryngological Association, Niagara Falls, May 31, 1906.

septum returned to its normal plane. Any definite method by which this could be accomplished in a large percentage of cases would have been accepted, it is safe to say, by a majority of surgeons with open arms as the ideal operation; and they would not have turned so enthusiastically toward the removal of the cartilaginous septum as the best method of treatment, particularly when such treatment is a contradiction to the rule already mentioned, namely, to replace and not to excise normal tissue. I refer to the window operation, or submucous resection of the cartilaginous septum, which during the last two or three years has been widely accepted as the operation *par excellence* for the removal of extreme septal deflection.

I cannot believe that when Nature has placed a large triangular or quadrangular septal cartilage in every person's nose, separating with a firm wall the one nasal cavity from the other, that it can be removed in a wholesale manner, with impunity, a membranous septum being left in its place. Yet this is the ideal operation of to-day, so ideal that several operators with marvellous technique have each removed from fifty to a hundred septal cartilages already. Being skilled men, the large majority of these operations have been successful; that is, the surgeon dissected back the mucous membrane with more or less of the perichondrium from each side and then removed the cartilage without perforation. Still, all the operations of these skilled men have not been without failures. We are told in the *American Journal of Surgery* for June, 1905, that the originator of the modern method had 12 per cent. of permanent perforations, that another operator had 20 per cent., and that yet another, and he one of the most brilliant surgeons of the day, had six perforations out of his first fifteen cases.

In the *Laryngoscope* for April this year the statement is made that the flap operation is often attended by perforation, and that Killian, one of the most skilful and successful of operators, had declared that the management of the lowest part of the septum is "most difficult"; also that in the Hajek operation "the column is entirely unsupported and may be drawn up into the nose by the contraction of the membranous septum with very noticeable deformity."

Yet the submucous operation has been so widely practised, and so much has been written upon it, that every rhinologist is dreaming of his first ideal operation; and if our established men—surgeons who have been operating for many years—can so frequently, though unintentionally, make successful punches through the septum, what may be expected of the new man, who is simply rubbing his palms together in hope of the opportunity of displaying his brilliancy?

The point might be pressed even farther. Is it wise to remove the great mass of the septal cartilage in so many successive cases, even

RUBBER COPIES OF EXTREME SEPTAL DEFORMITY.

VIEW FROM THE SIDE.

1. Post. End.

2. Post. End.

4. Post. End.



Ant. End, with Dome Ucut,

Ant. End, Cap Unpressed after the H. cuts.

Ant. End, Cap Pressed into Place.

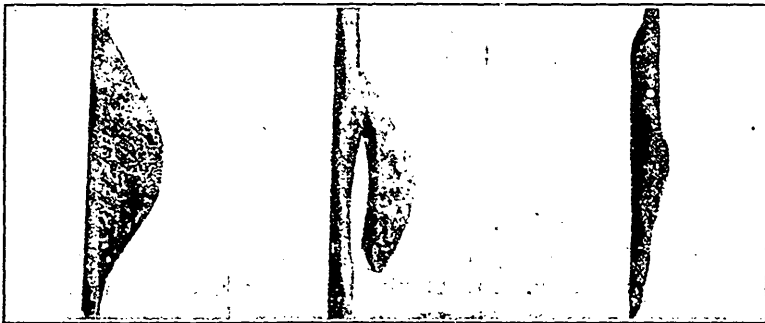
when the operation is brilliantly and beautifully done, resulting in perfect healing of the two folds of mucous membrane, back to back? This operation, in its largeness, has only been done during the last two or three years. What will be the effect upon these weakened septa in the

VIEW FROM ABOVE.

4. Post. End, same.

5. Post. End, same.

6. Post. End, same.



Ant. End, Dome Ucut.

Ant. End, after H cuts, before replacement.

Ant. End, after replacement.

long years of the future? for many of these patients will live twenty, thirty, or forty, years yet. We know how weak an organ the septum

is, for we frequently find it perforated even without operation, and when perforated it always occasions more or less distress to the patient. How will these membranous septa stand the aridity of the fevers, the typhoids, and the pneumonias of the future? And will there not be a much larger percentage of perforations among the people during future years if every rhinologist considers it his duty to do a submucous resection in every case of severe septal deformity?

It is in the light of these conditions that I venture to offer still another method of treatment for consideration, one in which the septal cartilage, when in extreme curvature, instead of being removed, can be relieved of all tension, and replaced with perfect healing in the central plane position. If this claim can be sustained it should be a better operation for the patient than the removal of the cartilage by submucous resection, no matter how excellently or scientifically this may be accomplished.

My former method, which I practised for years, was with a thick saw, to make two longitudinal cuts from before backwards through the septum. These were made obliquely from the convex side, and were about half an inch apart, passing through both mucous membranes, the lower cut being just above the superior maxillary ridge. This diminished the tension of the septum and enabled the operator with finger and spatula to force the central portion, as well as the adjacent margins, to their normal position. It did not, however, remove the central resiliency of the long curvature from before backwards. Still, my practice was to insert at once a pure rubber splint of sufficient thickness to retain the septum in its new position. The rubber being smooth, aseptic, compressible, and incapable of absorbing germs, was allowed to remain within the nasal cavity undisturbed as long as its presence was needed, cleansing being regularly attended to above and below the splint. In these cases good results were always obtained, but they were not perfect and the treatment was too prolonged.

Hence, to secure better and quicker results, I have added to the two cuts already mentioned still another one. That is, to remove the antero-posterior tension, I have made a cross-cut completely through both mucous membranes and cartilage and extending beyond the other two cuts, converting the two straight lines into the figure of H. Hence this method of treatment might be called the "H operation." (Figs. 1-6.)

The points I wish to draw attention to in reference to it are these. First, that as the curvature of the cartilage from above downwards gives it a greater width than it would occupy if it were upright in its normal

position, the two longitudinal cuts should be so managed as to remove two long slips of the septal cartilage; and at the same time be made at an oblique angle, so that the cut edges can slide over each other. Second, that the cross cut of the H should be very decidedly oblique, cutting through both mucous membranes and cartilage with knife or chisel, so that in replacing the segments the posterior central segment of the septum will slide forwards over its fellow and the anterior one backwards.

It matters little how these cuts are made if the principle upon which they are founded is carried out. The long strips of cartilage might be removed either by drill, or swivel-saw, or knife, or ordinary saw of unusual thickness, or any improved instrument specially constructed for the purpose. The cross-cut can be made by either chisel or knife.

The immediate result of the combined cuts when made completely through both mucous membranes and cartilage is that all tension is removed, that two rectangular flaps are made by the H incision, the basic blood supply of each being retained, and that they can with ease be pressed into the normal position, their edges sliding over each other. When I first did the operation I imagined that I would require to forcibly fracture the posterior piece at its base; but this was entirely unnecessary. The pieces will bend easily, and, sliding over each other, are readily adjusted, to be retained in position by the use of the invaluable rubber splint, a single one on the convex side being the only one needed.

Through the kindness of a gentleman who came with me from Toronto, I can now present to you a case for examination after successful treatment by this method.

The patient, aged twenty-six, was referred to me for treatment on November 8, 1905. His history is briefly as follows: He was perfectly well until ten years ago, when he fell off a ladder from the height of twenty feet, striking his chin and injuring him severely. After his recovery he was troubled with mental irritability and lack of power of concentration, both being attributed to the effects of the fall. No one suspected that his nose had been injured. After several years, as partial alienation continued, he went to Texas with the hope that the climate might benefit his health. He remained there for three years, when his condition became aggravated, and in March, 1905, he found it necessary to return home.

He next went to England, and last June was referred to Lambert Lack for advice, who at once said that his nose was at fault and that an operation was urgently required. This, however, was deferred until he came back to Canada, when he was placed under my care for treatment.

On examination, I found narrow, slit-like nostrils with almost complete nasal occlusion on the left side, caused by semi-globular curvature of the cartilaginous septum, which in the central part was attached to the inferior turbinate. On the right side there was a deep, irregular, angular cavity, which was filled by a compensatory hypertrophy of the inferior turbinate, making that side almost as occluded as the other. There was a stale malodor from the secretions, complete anosmia, and some muco-purulent discharge. On using the rhinoscope, the posterior end of the septum was found to occupy a nearly normal position.

The first operation was to reduce the size of the right inferior turbinate. This being done, several days were allowed to elapse, then the septum was operated upon at St. Michael's Hospital under chloroform anæsthesia, solutions of cocain and adrenalin being also applied to the convex side to shrink the tissues and increase the space required for operation.

As I purposed doing all the cutting from the left or convex side, I first inserted a wide strip of rubber one-eighth inch thick in the right or open cavity as a protective. Then the two longitudinal cuts were made with a thick nasal saw, and the cross-cut to complete the H operation was done by mallet and chisel. All the cuts were bevelled and penetrated completely through the septal cartilage and both mucous membranes.

Next, with a blunt dissector, the central part of the convex side was separated from the outer wall, and the index finger passed in. The parts were all readily adjusted, the resistance to movement was slight, and once in place, a broad rubber splint three-eighths of an inch thick was inserted to retain the fragments in position until union could take place.

Bleeding was comparatively slight. The temperature rose the following day to 100 degrees, but the next day it fell again and continued normal throughout the treatment, which consisted chiefly in leaving the splint in position and removing the secretions by the use of aseptic absorbent cotton often enough to prevent accumulation.

There were a couple of slight scissor operations, subsequent to the major one, and while the splint was still in position. These were to remove redundant tissue below the site of operation. I did not remove the splint until it came loose, which was on the twenty-fifth day, then it slipped out easily without traction or bleeding. The passage was wide and almost normal in appearance. No ulceration was present, and cartilaginous union had taken place. The sense of smell had already returned.

There was, however, a bony maxillary ridge remaining. But I delayed removing it until January 2nd, six weeks after the operation

upon the septum, lest the use of instruments might weaken the rigidity of the latter. From this time forward progress has been uninterrupted. The patient has free and equal respiration through both nostrils. His septal cartilage is firmly fixed near the centre, and there is no probability of it ever occasioning future trouble. His physical health is restored. Hebetude has disappeared, the nostrils have become wider, and he is able to enjoy life better now than he has done for years.

I do not claim that the operation done in this case was perfect, but I do claim that the philosophy upon which the H operation is based is sound; and considering the many years that the patient is likely to live, the treatment adopted was much better for him than any submucous window operation could have been, and I commend the method to you for consideration.

THE CAUSES AND TREATMENT OF STERILITY IN THE FEMALE.

BY ASTON FLETCHER, M.D., C.M.,
Obstetrician to Toronto Western Hospital.

I. GENERAL CONSIDERATIONS.

A CHILDLESS marriage may be the fault of the husband as well as of the wife. Much has been said as to the proportion of cases due to the husband on the one hand, and the wife on the other. It has been said by some that nine times out of every ten the sterility is the fault of the wife; while others state that one-half of all the instances are due to the husband. These statements are exaggerated. The most reliable observations would lead one to conclude that about one-quarter of all the cases arise with the husbands, and three-quarters are chargeable to the wives. It should be remembered that the husband may not be impotent, and may emit seminal fluid during the sexual act, and yet be quite sterile. There may be azoöspemia.

The parts of the female to be considered in studying the causes of sterility are the entrance to the vagina, the vaginal canal itself, the external os uteri, the cervical canal, the internal os uteri, the cavity of the uterus, its cornua, the fallopian tubes, the peritoneal opening of these tubes with their fimbriated processes, and the ovaries. Disease or malformation in any of these structures may be competent to cause sterility. It should also be remembered that from the peritoneal opening at the fimbriated extremities of the fallopian tubes to the os externum the canal is supplied with ciliated epithelium, moving fluid constantly outwards from the peritoneal cavity to the external os. There

is, therefore, a continuous flow of fluid from the peritoneal end of the fallopian tubes to the external os. This flow, together with the movement of the cilia, aids the onward passage of the ovum.

Against this flow of fluid and movement of the cilia, the spermatozoön must make its way inwards. The flagella of the spermatozoön accomplishes this onward movement. At some point in the utero-tubal canal the ovum and spermatozoön meet

The study of pregnancy shows that impregnation may take place in the tubes, or beyond them, even in the ovary. It is more than likely that the fallopian tubes are the general location where impregnation occurs.

The essential conditions requisite for a pregnancy to occur are:—The formation of a healthy ovum, the meeting of this with a healthy spermatozoön in the upper part of the genital canal, and a healthy condition of the ciliated mucous membrane. We know nothing of the diseases of ovum and spermatozoön. It has been alleged that alcoholism, syphilis, tuberculosis, obesity, debility and exhaustion may give rise to conditions in these products so as to prevent conception. But it is more likely to be true that they cause some abnormal state in the mucous membrane that may be incompatible with the product of conception gaining a foothold suitable for its development.

So far as the female is concerned, sterility may be due to non-impregnation of the ovum, or to the fact that, though it becomes impregnated, it does not mature, but is lost early. Absolute sterility and abortion are very closely connected with each other.

The frequency of sterility among married women varies considerably. In the peerage it occurs about once in every six. In the general community in Britain, one married woman in every eight or nine is sterile. The proportion will be less in this country.

It has been said that over-intellectual development is a cause for sterility, but this has been denied by others, and the view put forth that too great muscular exertion may bring about the condition. These theories are rather vague.

There is what is known as acquired sterility, or what has often been designated as "one-child sterility." There is strong reason for assuming that by far the greater number of these instances is due to gonorrhœa. It has been estimated that perhaps 40 per cent. of the cases of "one-child, or acquired, sterility" is caused by gonorrhœa, while as high as 30 per cent. of primary sterility is set down to the same cause. Thus, gonorrhœa would be responsible for about 70 per cent.

of all cases, and these, according to some writers, almost exclusively due to the male imparting the disease.

II. ABNORMAL CONDITIONS OF THE VULVA AND ORIFICE.

Diseased conditions of, and abnormalities at, the orifice of the vagina may sometimes give rise to sterility. Atresia at the vulva is rare. Sometimes there may be a closure of the orifice, causing retention of the menstrual flow, but this can be remedied generally, unless there is absence of the genital organs. There may be cysts of Bartholin's glands, tumors around the orifice, or the rigid and sensitive remains of the hymen, resulting in vaginismus during coition. While these states do not necessarily prevent impregnation they interfere very much with penetration and lessen the chances of fertilization. The removal of the cysts, or tumors, and the dilatation of the vaginal orifice, removing, if necessary, the remains of the hymen, may completely cure sterility due to the dyspareunia arising from such conditions. In order to be successful, the stretching of the vaginal sphincter must be thorough and must be repeated until it remains relaxed. It may be well to pack the orifice with gauze, or to insert a dilator from time to time.

III. PREVENTIVE CAUSES FOUND IN THE VAGINA.

In the vagina itself a number of causes for infertility may be found. There may be atresia or constrictions of the canal. These may be congenital or the result of injury. These conditions may be successfully treated by incisions and dilatations. Another condition of the vaginal canal that may cause sterility is a marked narrowing of its upper end. This has the tendency to prevent the seminal fluid remaining long enough there to enable the spermatozoa to find their way into the uterus. This condition may be overcome by thorough dilatation. Cases are on record where a spasmodic action of the muscular tissue in the vaginal walls caused the premature expulsion of the semen. This may be overcome by a high position of the pelvis during and after coition. Cystocele of the vagina, often due to a ruptured perineum, may be the cause of infertility. Fistulæ in connection with the vagina and adjoining organs are also causes. There may be secretions in the vagina that are injurious to the spermatozoa. The uterine secretion is alkaline and that of the lower vagina acid. When the uterine os is too low down it may bring it into too acid and septic a region. Alkaline douches are useful in such cases, and under such treatment impregnation may occur, by correcting the acidity and removing offending secretions.

In an abnormally deep vagina the semen is deposited at a distance from the os and the walls will coapt, thus emptying the vagina and effectually preventing impregnation. I have a case of this where every manœuver has failed to bathe the os in the semen.

IV. THE RELATIONSHIP OF THE UTERUS TO STERILITY.

The cause for sterility may be found in the uterus itself. Lacerations, endometritis, fungoids, portions of the retained placenta, resulting from a former labor or miscarriage, may be the causes of acquired sterility. Lacerations must be repaired; granulations and glandular endometritis must be treated by curettage and proper intra-uterine applications to relieve the abnormal conditions present and to render the secretions normal.

Myomatous tumors may result in sterility by causing a chronic endometritis, or by keeping up unhealthy discharges. They may also be the cause of abortions by their effect upon the endometrium or by preventing the proper growth and expansion of the uterus.

An elongated cervix and a stenosed os externum are common causes of the complaint of non-childbearing. The constricted os renders it difficult for the spermatozoa to make their ascent into the uterus. In like manner the elongated cervix produces displacement of the os, carrying it downwards where the conditions and secretions are less normal for the seminal fluid, and where it is more difficult for the spermatozoa to remain long enough for their entry into the uterine cavity. The os should be high up in the vagina and be directed against the posterior wall. Any departure from this position lessens the prospects of conception. Further, these conditions tend to cause an endometritis. These conditions may be remedied by dilatation, curettage and the removal of the elongated cervix. Splitting the cervix has been practised.

Retroflexion, ante-flexion, and versions of the uterus must be placed among the causes of absolute and acquired sterility. The displaced uterus is usually carried too low down, bringing the os into the septic and acid area. There are also derangements in the circulation of the misplaced organ, and inflammatory conditions follow, especially endometritis. These are causes for both non-conception and early abortion. These displacements should be corrected by a proper pessary, and it may be necessary to follow this up by a curettage, and some fixation operation upon the uterus.

Sometimes an imperfectly developed uterus may be found. But little can be done for such cases. Treatment that will stimulate the vascularity of the organ may have the desired effect. Packing with

ichthyol and glycerine, the use of electricity, and the employment of massage and hot douches have all had their advocates as a means of increasing the functional activity of the uterus.

The uterus may be of the unicorn or bicorn type, or be congenitally absent. In the unicorn and bicorn uterus, if pregnancy does occur, abortion is likely to take place, or the labor to be complicated.

A very short vagina, one in which there is marked disproportion between the short vagina and the length of the penis, will cause sterility by a spasmodic closure of the os externum, the result of coming too violently in contact with the penis during coition. The os is perfectly normal in this class until irritated by contact with the penis.

V. THE FALLOPIAN TUBES.

The fallopian tubes play an important *role* in the process of conception. They are the oviducts that convey the ovum from the ovary to the uterus. They also afford the passage for the spermatozoa upwards to meet the ovum. The fallopian tubes may fail to perform their part through the loss of the ciliated epithelium, by the existence of inflammation, or the pressure of strictures. The vast majority of these cases are due to gonorrhœal infection extending into the tubes, though other infective germs may be responsible for some. When the tubes are in a condition merely of hydrosalpinx, an opening in them and probing the tubes to the uterus may cure the cause of sterility. If, however, the tubes are too distorted and thin this will not prove successful.

When the tubes are in a purulent condition, this method of treatment cannot be resorted to. Their removal is the only course open to the surgeon, and this, of course, ensures permanency of the sterility.

The fimbriated extremity of the tubes may be distorted as the result of inflammation, or they may be walled off and closed by inflammatory adhesions. In fact this may extend inward to the tubes binding it down so as to close the lumen.

VI. THE OVARIES.

In these organs several causes for sterility may be found.

Following some fever, there may be atrophy of the ovaries, which renders them incapable of producing healthy ova.

The capsule of the ovary may become thickened from inflammatory conditions in the pelvis, or there may be a deposit of lymph upon their surface preventing the rupture of the Graafian follicles.

Chronic inflammation of the ovaries may render them functionless, or may cause their displacement, preventing the ovum finding its way into the tubes. The opening through the tubes between the peritoneum and the outer world is the source of infection in many cases, and a common cause for pelvic inflammation in women, during the progress of which the ovaries become involved. In the pus-ovary the sterility is incurable. When the ovary is only encapsuled by too firm a membrane or adhesions, these may be stripped off, an opening made in the tube and all the organs raised by a fixation operation. These procedures have been known to cure.

The presence of cysts, or fibroid or malignant tumors of the ovaries may destroy their ovum producing function. In the case of cysts careful surgery may remove them and still leave enough normal ovary to perform its normal duties.

While gonorrhœa is not the only cause for purulent inflammation in the tubes and ovaries, there is no doubt but that it is the greatest sinner in this respect. It is certainly one of the most important causes of sterility through its damaging effects upon the tubes and ovaries, and uterine mucosa.

Careful treatment of ovarian and tubal inflammations by means of medicated tampons, hot douches, rest, hygienic and tonic measures, may enable some women to become mothers.

In every case of infertility where the physician's advice is sought, both husband and wife should be carefully examined. In the case of the wife the entire sexual canal must be passed under review, and the treatment directed to the parts at fault. Impotency, or azoöspemia, would lay the fault upon the husband, while pus tubes would as clearly make it that of the wife. Every avenue of information must be sought out.

1215 College street.

Doctors J. M. Anders, J. Daland and G. F. Pfahler, of Philadelphia (*Journal A. M. A.*, May 19th), report two cases of arthritis deformans successfully treated with the X-ray. The exposures were made three times a week with about one milliamperere of current for fifteen minutes. Internal treatment and massage were also employed. While the report is made as a preliminary one only, the authors say that they consider the method a valuable one, the rays stimulating the metabolism of the affected joints. This should be taken advantage of and massage and passive movement added to assist in the removal of the exudate.

STUDIES UPON VARIOLA AND VACCINIA.

AN ARSTRACT OF PAPERS

BY PROF. W. T. COUNCILMAN, W. B. BRINCKERHOFF, S.B., M.D., AND
E. E. TYZZER, A.M., M.D.

THE subject of smallpox must ever be an interesting one for the medical profession. So long as the study of the disease is limited to clinical and pathological observations on man the progress may be slow. Recently some very important experimental studies have been carried out on monkeys and some other of the lower animals. A number of papers, bearing upon vaccinia, variola inoculata, and variola vera, appeared in a recent issue of the *Journal of Medical Research*. These experiments were carried on by Drs. W. R. Brinkerhoff and E. E. Tyzzer in the Sears laboratory at Harvard University.

The first paper deals with "Studies upon Experimental Vaccinia in the Philippine Monkey." In the matter of vaccinia following inoculation of the skin of the monkey the following conclusions are drawn:—

1. Inoculation of the skin of *M. cynomologus* with vaccine virus is followed by the development of a lesion at the site of inoculation which is similar in all respects to that which follows similar inoculations of other animals.

2. The development of the lesion is associated with a rise in the body temperature which is most marked during its active evolution.

3. The lymph nodes, which are interposed between the area of skin on which the lesion develops and the main lymph trunks, show enlargement coincidently with the temperature reaction. The nodes show histological changes which account for this enlargement.

4. Cytoryctes variolæ is found in the epithelial cells of the vaccine lesion, and also in the endothelial cells of capillaries beneath the epithelium of the lesion.

5. *Macacus cynomologus* is susceptible to vaccinia.

In the matter of vaccinal keratitis in the monkey the paper states that:—

1. Vaccination of the cornea of the monkey, *M. cynomologus*, produces a lesion which is specific and which is comparable with that following the same inoculation in the rabbit.

2. The lesion is characterized chiefly by an early loss of epithelium at the site of inoculation which is accompanied by the development of photophobia and conjunctivitis.

3. Cytoryctes vaccinae are present in the cells of the lesion!

On the results of vaccinia following inoculation of the mucous membrane of the monkey, the experimenters conclude:—

1. Vaccination of the monkey, *M. cynomologus*, upon the nasal, oral, or buccal mucous membrane gives rise to a true vaccine lesion similar to that which follows vaccination of the skin.

2. The vaccine lesion on the mucous membrane shows certain differences from that upon the skin, but these differences are explained by the physical conditions at the point of inoculation.

3. The presence of cytoplasmic phases of *Cytoryctes variolae*, and the absence of nuclear phases of the organism in the vaccine lesion on the mucous membrane, is consistent with the hypothesis that the former cycle is associated with the lesions of vaccinia, and that the latter do not occur in such lesions, being peculiar to variola.

The second leading paper and series of experiments are with experimental variola in monkeys. On the subject of variola inoculata following inoculation of the skin of the monkey, the deductions are very important, and are thus summarized by the writers:—

1. Inoculation of the skin of the monkey (*M. cynomologus* and *M. nemestrinus*) with variola virus produces a disease in which all the essential characteristics are identical with those of variola inoculata in man.

2. Variola inoculata in the monkey differs from variola inoculata in man in that the fever has a shorter duration and the exanthem appears at an earlier date.

3. Variola inoculata in the monkey is as distinct a clinical entity as is variola inoculata in man.

4. *Cytoryctes variolae* are found in the endothelial cells of the capillaries in the corium beneath the primary lesion of variola inoculata.

With regard to the inoculation of true variola into the orang, the observations are:—

1. The orang utan is susceptible to variola inoculata.

2. The evolution of the specific lesion at the site of inoculation is comparable with that which follows similar inoculations in the monkey (*M. cynomologus* and *M. nemestrinus*).

3. The primary lesions of variola inoculata in the orang utan stand closer to the cutaneous lesions of variola vera in man than do the primary cutaneous lesions of variola inoculata in the monkey in respect to richness in forms of *Cytoryctes variolae*, and particularly in the number of nuclear forms present.

The conclusions in variolous keratitis in *macacus cynomologus* are thus set forth:—

1. Inoculation of the cornea of the monkey (*M. cynomologus*) with variola virus produces a specific lesion characterized by swelling, proliferation, and varying degrees of degeneration of the epithelial cells.

2. The lesion is similar to that produced by inoculation of the cornea of the rabbit with vaccine or with variola virus.

3. The lesion results in less destruction of the corneal epithelium than follows similar inoculations of the cornea of the monkey with vaccine virus.

4. The lesion on the cornea differs from the variolous lesion on the skin of the monkey in that exudation does not play as prominent a part, and that true vesicle formation does not occur.

5. Cytoryctes variolæ are present in the lesion up to eleven days after the inoculation, but nuclear forms of the parasite are not found.

6. A variolous lesion on the cornea of the monkey may be followed by a general exanthem which appears on the same day as after skin inoculation. We therefore identify the disease produced in the monkey by variolation on the cornea as variola inoculata.

On the subject of variola inoculata following inoculation of the mucous membrane of the monkey, the deductions are given:—

1. Inoculation of the mucous membrane of the lip, the nose, or the palate of the monkey (*M. cynomologus*) with variola virus produces a disease which conforms to the type of variola inoculata.

2. The primary lesion on the mucous membrane is similar, cytologically and histologically, to that which follows variolation of the skin.

3. Cytoryctes variolæ, in both the cytoplasmic and the nuclear phases, are present in the lesions.

4. Cytoplasmic forms of the parasite are found invading endothelial cells of lymphatics beneath the lesions of five days duration.

With regard to the occurrence of variola vera in monkeys and the orang utan, the writers conclude:—

1. Inoculation of the mucous membrane of the trachea of the monkey (*M. cynomologus*) with variola virus produces a variola inoculata in that animal.

2. Inhalation of variola virus by the monkey (*M. cynomologus*) produces a variola inoculata in that animal.

3. Exposure of the monkey (*M. cynomologus*) and the orang utan (*Simia satyrus*) to smallpox fomites and to a smallpox patient does not produce variola vera, or any other recognizable form of variola, in these animals.

4. Inoculation of the mucous membrane of the trachea of the monkey (*M. cynomologus*) with variolous virus is followed by the development of a variolous lesion on the mucous membrane which is similar to that produced on other mucous membranes by similar inoculations. A variolous lesion may develop in the bronchi and be associated with a pneumonia in which *Cytoryctes variolæ* are present. The development of the specific lesion in the trachea may be followed by a general cutaneous exanthem, and also by focal lesions of a variolous nature in the seminal vesicles.

5. *Cytoryctes variolæ* can invade the epithelial cells of the trachea, the bronchi, the alveoli of the lung, and the seminal vesicles.

6. *Cytoryctes variolæ* can invade the endothelial cells of lymphatics and blood vessels. This property of the organism probably plays an important part in the production of the exanthem in variola.

The third series of experiments deal with the immunity reactions of the monkey after inoculation with vaccine or variola virus. On the immunity reactions of the monkey after inoculation of the skin with vaccine or variola virus, they state that:—

1. A vaccine lesion on the skin of the monkey (*M. cynomologus*) confers upon the animal an immunity to subsequent inoculation of the skin with vaccine or with variola virus.

2. A variolous lesion on the skin of the monkey (*M. cynomologus*) protects the animal against subsequent inoculation of the skin with variola virus, but does not, in all cases, protect against later inoculation with vaccine virus.

3. The failure of variola inoculata in the monkey to protect against subsequent skin inoculation with vaccine virus depends upon the fact that this species of animal produces a smaller amount of the germicidal substance necessary to inhibit a second inoculation after variolation than it does after vaccination.

The conclusions regarding the influence of the locus of inoculation upon the development of the immunity in vaccinia and variola in the monkey are:—

1. The degree of protection conferred by a vaccinal or variolous lesion on the monkey (*M. cynomologus*) is conditioned by the locus chosen for inoculation as well as by which virus is employed.

2. The varying degree of immunity production which follows the development of vaccinal or variolous lesions at different loci of inoculation is dependent upon the physical conditions there present.

3. The outcome of an inoculation of an animal which has had a variolous or vacciniuous lesion depends upon the locus and upon the

virus employed in the second inoculation, as well as upon the locus and upon the virus employed in the first inoculation.

On the time of development of the immunity after inoculation of the skin of the monkey with vaccine and with variola virus, the conclusions are :—

1. The immunity which accompanies the development of a vaccine lesion on the skin of a monkey becomes manifest between the sixth and eleventh day.

2. After a variola lesion of the skin the immunity appears between the fifth and eighth day.

3. The organisms which produce this exanthem in variola inoculata in the monkey pass from the point of inoculation to the skin before the onset of the general immunity.

4. The development of an exanthem in variola inoculata in the monkey is not dependent upon a late development of the immunity reaction of the animal.

5. The use of variolical sera is indicated only in cases where it can be administered during the incubation stage of the disease.

The fourth series of studies deal with the occurrence of cytoryctes variolæ, Guarnieri, in experimental variola and vaccinia in the monkey and in the orang utan. The summary and conclusions of these are :—

1. The cytoplasmic forms of Cytoryctes variolæ are found constantly in all specific lesions resulting from inoculation with variola or with vaccine virus. They appear in the primary lesions of both variola inoculata and vaccinia soon after the inoculation. They persist in the primary skin lesions for about eight days after inoculation at which time immunity is established and repair is beginning. In variola inoculata the exanthem as well as the primary lesions contain cytoplasmic forms.

2. Intranuclear forms are found with the epithelial nuclei in lesions resulting from the inoculation of the monkey with variola virus and do not occur in vaccine lesions. These structures are specific for variola. Other non-specific nuclear inclusions occur in vaccinia, in variola, and in other non-related processes.

3. The nuclear forms of Cytoryctes, which are found only in small numbers in the primary skin lesion of variola inoculata in the monkeys, *M. cynomolgus* and *M. nemestrinus*, are present in far greater numbers in the corresponding lesion of the orang.

4. Nuclear forms were only occasionally found in lesions of the general eruption following the inoculation of the skin of the monkey with variola virus, but were very numerous in the eruption which fol-

lowed the intravenous injection of variola virus into the tail vein with subsequent amputation of the tail proximal to the point of inoculation. This eruption resembles in this as well as in other respects the eruption of variola vera in man.

5. The cytoplasmic forms of Cytoryctes are constantly associated with variola and vaccinia in whatever portion of the body the lesions may develop. Thus they are found included in a variety of cells, the squamous epithelium of the skin, the cornea, the mucous membrane of the nose, oral cavity, and œsophagus; the cells of the sebaceous and Meibomian glands; the epithelium of the conjunctiva; the columnar epithelium of the nose, trachea, and seminal vesicle; the epithelium lining the alveoli of the lung; endothelial cells and connective tissue cells.

6. The occurrence of Cytoryctes in the cells of the corium, and especially within the endothelium of vessels, suggests a possible method of dissemination of the organism in the production of the exanthem. Endothelial cells containing Cytoryctes were, however, also found in a few instances in vaccine lesions, a form of the disease never accompanied by a general eruption.

7. The occurrence and distribution of the specific inclusions is best explained by the hypothesis that they are parasites, and that as such they are the cause of the disease.

With regard to the reaction of variola virus to certain external conditions, it was found that:—

1. Variola virus is less resistant to desiccation than vaccine virus.
2. Variola virus does not pass through the "N" Berkefeld filter.
3. Variola virus is attenuated by long exposure to sixty per cent. glycerine. The virus so treated loses its power to produce an exanthem when inoculated on the skin of the monkey (*M. cynomologus*).
4. Variola virus tends to die out when passed repeatedly through the monkey. The exanthem-producing power is lost before the virus has become incapable of producing a primary lesion.

Prof. W. T. Councilman, in his introduction to these papers, offers some very interesting comments and suggestions as follows:—

If material taken from a smallpox lesion in man be inoculated on an epithelial surface of a calf, after a definite period a lesion, which anatomically closely resembles the parent lesion, the pock, is produced. Its appearance is accompanied by swelling of the nearest lymph nodes, fever, and constitutional disturbance. After the process has subsided there is immunity to further inoculation. The material from the lesion transferred to an epithelial surface on another calf produces a similar result, and, after a series of transfers from animal to animal, may be

returned to man, and it develops not the original disease, smallpox, but the incomparably milder disease, vaccinia.

Many of the strains of vaccine virus now used are known to have been derived from smallpox, and we are justified in believing that all strains were originally so derived. Just how many transfers from animal to animal is necessary before the virus loses its power to produce smallpox is not known. One of our experiments in this regard is interesting. The contents of a smallpox vesicle in a monkey was used to inoculate the cornea of a rabbit. After five successful transfers to other rabbits the virus was used to inoculate a monkey, and not vaccinia but smallpox was produced. The disease, vaccinia, confers immunity not only against vaccinia but against smallpox. The immunity, though not absolute, is stronger than is developed by most other infectious diseases. Vaccinia differs from smallpox in three striking respects:—

First. The period of incubation is shorter, being in man five days. The incubation period of smallpox is twelve days.

Second. In vaccinia there is no general exanthem. There may be a few vesicles around the point of inoculation, but they develop simultaneously with and not after the main lesion, and are probably due to a distribution of the virus at the time of inoculation.

Third. For the development of vaccinia it is necessary that the virus reach directly a susceptible epithelial surface. It may be placed on such a surface or be carried there by the blood after having been injected into the blood circulation. The disease may also be transferred from individual to individual by immediate or intermediate contact, but there is no evidence that the virus can be transported by the air as can that of smallpox.

It agrees with smallpox in the similarity of the lesion produced by inoculation to the pock, and in the fact that both diseases may be produced by the virus of variola.

If material from a smallpox lesion be placed in contact with a susceptible epithelial surface of man or of the monkey, there develops at the site of inoculation a lesion larger but having the general characteristics of the pock, together with constitutional disturbances and an exanthem less abundant but otherwise similar to the exanthem of smallpox. Immunity to both vaccinia and smallpox follows the disease.

Certain experiments were made in the Philippines with reference to the immunity produced by vaccinia as compared with that produced by variola inoculata. These experiments were not sufficiently numerous and varied to cover the entire field. They show, however, certain interesting features. The immunity produced by vaccinia is stronger

and more fully protective than that produced by variola inoculata. Further, vaccinia is a more potent virus than that of variola. It was found easier to produce immunity to variola inoculata than to vaccinia. The evidence is that the immunity is germicidal in character for the serum of an immune animal inactivates vaccine virus. We have not been able to make any tests with the serum of monkeys immunized by the variola virus. Experiments made to test the influence of unfavorable external conditions on the virus of vaccinia and variola showed that variola was much more resistant. The variola virus seems to undergo an attenuation after passing through a series of monkeys, finally losing the power of producing an exanthem, although a typical local lesion follows inoculation. The same was true of variola virus which had been subjected to the influence of glycerine for various periods.

It is generally believed that in man the primary variola infection takes place on some mucous surface, and systematic infection follows from the development of the organisms at the primary focus. There is no anatomical evidence for this assumption. Such a protopustule has never been found. In the fifty-two autopsies made in Boston careful search was made for such a lesion, but in vain. The period of incubation in smallpox runs its course without symptoms, but it would be possible for such a lesion to exist in the lungs without producing symptoms, as can a considerable tuberculous focus.

It seems also sure that the organism described does not conform to the type of other known organisms. The evidence that the things described are living comes in part from the analogy of structure with other things which are recognized as living organisms, and in part from the analogy with living things which they give by progressive growth and differentiation of structure. Certain forms are found at certain intervals of time and they occur in sequence. It has not been possible to show in them nuclear material with the Romanowsky stain nor, so far as I know, has it been possible to stain with this the nuclei of malarial parasites in tissues. In the investigation of smallpox we are unfortunately limited to the tissues. We have never been able to detect with certainty, either in the virus of smallpox or vaccinia, or in the blood of an infected animal or man, the forms which in the tissue we recognize as parasites. If the very minute bodies which we speak of as gemmules in the cytoplasmic cycle and as spores in the nuclear cycle were present in such fluids we do not know how they could be recognized. The bodies can only be regarded as parasites or as products of cell degeneration. If degenerations they are totally unlike any of the ordinary substances found in degenerating cells. More

over, their presence inaugurate the cell changes which are found in the lesions. The Cytoryctes occur in cells which, but for their presence, show no departure from the normal type. They are specific. No other disease shows the same changes in the cells.

From these experiments and investigations it would appear as if vaccinia and smallpox were yielding up the secrets of their biology or germ life. If the spirochæta pallida and the Cytoryctes are specific respectively to syphilis and variola the bacteriologists will be entitled to no small measure of praise, and the indications are that way.

With regard to the organism, Prof. Councilman remarks as follows:—

In the course of this investigation it was found that certain cell inclusions, first described by Guarnieri, were constantly associated with the lesions of both vaccinia and variola. These bodies are not of invariable form but they show a series of forms corresponding to the developmental phases of a living organism. In the course of this developmental series a body much larger and more complicated in structure follows the smallest and simplest forms corresponding to the forms which are the first to appear in the lesions. In variola, in addition to the forms common to both vaccinia and variola which are found in the cytoplasm of the epithelial cells, a new body appears in the nuclei of the epithelial cells which undergoes a development dissimilar to that of the cytoplasmic forms, and which finally results in the formation of a sporoblast with spores.

It was believed by the investigators that these inclusions were living parasites, and that in both vaccinia and variola there was a simple development taking place in the cytoplasm of the epithelial cells. In smallpox there was a further development which took place within the nucleus and which terminated in the formation of spores, which spores constituted the contagium of smallpox. The material was further worked over by Prof. G. N. Calkins, of Columbia University, who described a life history embracing both the cytoplasmic and intranuclear forms. It was further established that when vaccine virus was inoculated in a susceptible animal (and most animals are susceptible) a typical lesion was produced in which only the cytoplasmic forms of the organism were found. The same was true when variola virus was inoculated on animals not susceptible to variola. No exanthem develops on such animals after inoculation with variola virus. When variola virus was inoculated on the monkey an exanthem analogous to that of variola in man was produced, and in both the primary lesion and in the exanthem both the cytoplasmic and the intranuclear forms of the parasite were present.

ABSTRACT OF AN ADDRESS ON ALCOHOL IN MEDICINE.

By G. SIMS WOODHEAD, Prof. of Pathology in Cambridge University.

A YEAR ago I had attended a meeting of the character of this alliance in Cape Town, and I can not help thinking that, wide apart as we are in the matter of miles, when it comes to the great problems to deal with we are all standing on very small and very common ground. I feel, too, that in regard to alcohol medical men must take the lead, for they knew what it was doing, and any medical man who was worth his salt was looking not merely to the immediate illness or indisposition of any of his patients, but he was looking ahead for the welfare of all. For that reason I am exceedingly glad that such a change has come over the medical profession as shown by Sir Victor's illuminating diagram.

I would refer to the uncertainty with which the British Medical Temperance Association was regarded at first, but it was now meeting with general encouragement. After close study of the question the members had reached a different conclusion than that formerly held as to the value of alcohol as a drug.

Sir Victor has spoken of the changed attitude of surgeons toward alcohol. I believe an equally strong change of opinion is taking place in connection with the medical branch, and that men who at one time looked upon it as necessary in the treatment of various diseases are now satisfied that it exercises a deleterious effect upon the resisting power of the patient. In an odd case of pneumonia it might be beneficial, but in most cases it has been found to do more harm than good.

Men have been working away in the laboratories, and have been trying to arrive at the actual value of alcohol in certain conditions, and I may state generally that almost every experimenter who has taken up this question has come definitely to the conclusion that alcohol interferes with the production of what we call the condition of immunity; it interferes with that condition as a result of which we recover from various specific infectious diseases, and if alcohol interferes with the production of that condition in animals, then we must assume that it interferes with the production of a similar condition in the human being. Therefore, I feel very strongly that until very strong evidence can be brought forward that alcohol has a definite effect in improving the condition of the patient—and we have no evidence of this at present—we ought to hold our hands as regards alcohol, and use these many drugs of which Sir Victor has spoken of as substitutes, at any rate in the meantime.

Dr. Muir, of Edinburgh, said to me when a student:—

“If I can get a patient who has had no alcohol, I have no doubt about the result. It is not necessary to give alcohol. But when I have alcohol patients I find it necessary in some cases to give it, but when I do so it is with finger on the pulse. They generally do better without it, but one occasionally does better with it.”

I appeal to the younger medical men to study the question, as it was not a question of any locality, but one which involved the physical regeneration of the human race, and therefore it was one in which they might all be proud to take a part.

ABSTRACT OF AN ADDRESS ON THE USE OF ALCOHOL IN SURGERY.

By Sir VICTOR HORSLEY, F.R.C.S., F.R.S., London.

I APPRECIATED with more than usual feeling the kind invitation to speak before the Dominion Alliance on the use of alcohol in surgery. You are probably well aware of the attitude of the medical profession toward alcohol on this side of the water. Only a fortnight ago the French-speaking practitioners passed a strong resolution on the subject. And the inquiries of Mr. Spence show that the medical profession in Canada is hostile rather than friendly towards the use of alcohol. I am here to give an idea of the attitude of the medical profession in the old country. Years ago the association asked the Education Department to take a more active step to promote the hygiene and temperance of the nation.

I would like to say at once that the profession at home has the same hostile attitude on the whole towards alcohol that you have, and I will prove it to you, and I mean alcohol not only as a beverage, which is indulged in to too great an extent, but they have found out what alcohol's real value is as a drug, and that is, in my opinion at any rate, practically nil. When I was a student, alcohol was the traditional remedy in surgery for blood-poisoning and after operations, and for an infectious disease like pneumonia. What is the position now? That on all these points alcohol is being no longer used.

I shall now refer to a chart which I have prepared on the statistics of Dr. Hare, showing the decline in the use of alcohol and the increased use of milk in seven great London hospitals in the last forty years. This shows what the medical profession in London, at any rate, is doing with regard to the use of alcohol as a drug. In 1862 the expenditure on milk in those hospitals was \$15,000 a year. That expenditure

had been constantly rising until in 1902 it was over \$40,000. The expenditure on alcohol in the same hospitals in 1862 was \$40,000 a year, and for the next decade it remained about stationary. In 1882, when I was a student, it had decreased and milk increased until both were about equal. About that time antiseptic surgery became general, and during the last twenty years alcohol has gone down until the expenditure in 1902 was only \$15,000; so that in London alcohol was not being valued as a drug as it had been 40 years ago.

The same was being proved with regard to the country. The Royal Infirmary at Salisbury 25 years ago spent \$1,500 on alcohol, and last year only \$35. It had been a gradual evolution of action on the part of the profession in their use of alcohol as a drug.

Personally I believe that the movement really began with the surgeons. It was no credit to them, but to the great man to whom they owed everything—Lord Lister—and was one of the innumerable benefits resulting from his discovery of the great principles of antiseptic surgery. When I was a student it was the custom to give three or four ounces of alcohol to every patient entering the theatre for an operation. The quantity had diminished, but still it was given as a custom. It was a custom we were getting rid of. Then for the post-operative condition alcohol had practically disappeared and was being replaced by a whole armamentarium of drugs better for the purpose. Very little examination into the general practice would show the same thing. About a year ago Dr. Hancock, a well-known practitioner, said he had not used alcohol for seven years in general practice.

Personally, I believe that the medical profession is to be the great reforming agency of every nation because medical men are the real witnesses of social life. Three years ago the medical profession throughout the United Kingdom issued a petition to the Government asking it to introduce the compulsory teaching of domestic hygiene and temperance in the elementary schools. The letters were sent out to the profession on Friday night, and on Monday morning there were 5,000 answers, and within the next few days there were 15,000 answers from medical practitioners. So that the feeling in the old country that every child should be taught the elements of domestic hygiene and temperance is overwhelmingly strong. It has produced a very powerful effect on the Government in this particular.

I am only too well aware that the old country is a little lagging behind the colonies in this respect, but I hope that she will gain a little fresh wind now and cut a respectable figure in the race. But, at any rate, if she is to take her proper place, and if the physical deterioration of the nation is to be arrested, and if the physical condition is to improve, it will be by the authority and by the agency of the medical profession, and, therefore, it was with the greatest pleasure in the world that I accepted the invitation to come here.

CURRENT MEDICAL LITERATURE

MEDICINE.

Under the charge of A. J. MACKENZIE, B.A., M.B., Toronto.

FIGHTING A GOOD FIGHT.

In the recent report of the Henry Phipps Institute for the Study, Treatment and Prevention of Tuberculosis, Dr. Flick again impresses upon us his belief that this disease is contracted mainly in unhealthy enclosures of whatever nature—rooms, flats, hovels, workshops; it is primarily and essentially a house disease. To this view most phthisiologists now subscribe. In living rooms and in factories which are occupied for many hours together, the danger is greatest; in hotels, churches, public halls and vehicles, which are entered but occasionally and for comparatively brief periods, the danger is less.

Moreover, the nature of the implantations must be considered. One implantation may not produce consumption; probably every individual has had at least that. They must be frequent and long continued to result in the disease. On thoroughfares, where sunshine, fresh air and comparatively wholesome conditions obtain, tuberculosis is not to be seriously feared. He who insists upon the contrary is a veritable inciter of phthisiophobia, and is a menace to the peace and the welfare of the body politic. A precise statement made by the Maryland Tuberculosis Commission is in place: "Measures of general public protection, such as the control of promiscuous spitting in street cars and public places, while of course of great value, do not reach the largest source of dissemination of the disease. It cannot be claimed by any student of tuberculous infection that *three per cent.* of tuberculous persons have received their infections in street cars or public buildings. Of the infections of reasonable definite origin probably from 90 per cent. to 98 per cent. take place in the living rooms of those affected, while a further considerable percentage take place in the work rooms."

The workroom and the factory are, indeed, entitled to the gravest consideration. Here the physician and the statesman should work most heartily in harmony. Corvet declares that "the consumptive is far more a source of danger to his fellow workmen than to his family, especially if his calling be within doors." And in this consideration we would include the schoolroom, for obvious reasons, but especially because the school child may oftentimes be subject to implantations which may remain latent until adolescence. Pulmonary tuberculosis

begins to claim its victims about the fifteenth year. School conditions, however, are now, we are grateful to say, almost universally healthful.—*Boston Medical and Surgical Journal*.

DOES THE DRINKING OF WATER GIVE TYPHOID FEVER?

R. G. Eccles declares that there is no reasonable room to doubt that the development of typhoid fever is connected with the use of infected water; but that typhoid fever results from the drinking of infected water is quite a different proposition. He then emphasizes the important part which flies play in carrying disease germs to food. These insects go through human excreta, garbage, slops, sputa, and decomposing matter in one minute and then wade over our food at the next. It is easy to see how food may multiply disease germs to the danger point, but it is not evident how any person could take the disease from water that thousands are drinking without the slightest injury. Typhoid germs injure by their toxin. When these germs get into food there is practically no limit to the poison that they are able to produce if the conditions are favorable. The writer then goes into various phases of this question. He considers water, dust, and fomites as mere seed sowers. Food is the disease breeder. In the late war the Japanese lost only one-sixth as many from typhoid fever and dysentery as did the Russians. The writer ascribes this fact to the differences in the character and the method of caring for the food of the two nations:—*Medical Record*, August 11, 1906.

ADRENALIN IN MALIGNANT DISEASE.

J. E. Rhodes (*Journal A.M.A.*, August 11), reports the case of a patient suffering with unoperable sarcoma of the nasopharynx, treated by injections of adrenalin into the growth (from 2.5 to 5 milligrams at each injection), together with local application by swabbing or spraying. The results were marked reduction of size of the tumor and temporary alleviation of pain, but the patient continued to fail and died in less than two months from the beginning of the treatment. While the effect of the treatment was only encouraging in this case, Rhodes thinks that it should be given a trial in other cases. Mahu's favorite experience is noted and the history of a case successfully treated by Berdier and Falabert is reproduced. Rhodes believes, however, that caution should be exercised in the use of the method. He believes that

it merits trial, especially in cases of carcinomata and sarcomata of the nose and throat, in which an unfavorable prognosis is almost invariable, and that the earlier it can be resorted to the better. He thinks it safe to assert that it has at least a palliative effect and may replace morphine as an analgesic in these cases, though, as yet, evidence of its curative value is lacking. In operable cases, however, in which delay is dangerous, a resort to surgery should still be the rule.

THE INCUBATION PERIOD OF SYPHILIS.

Drs. Metchnikoff and Roux report 12 successful inoculations, seven from human syphilis, upon chimpanzees. In these cases, the incubation period was reported in six as 22, 22, 26, 33, 35, and 37 days, an average of between 29 and 30 days, and none below 22 days. These inoculations of the human virus on chimpanzees are recognized as successful by Fournier and other competent authorities. So far as experimental inoculations are concerned there is every reason to believe that the true chancre always had a period of incubation; that the period varies within rather wide limits; that it never falls below 15, or possibly 13, days, and that 42 days is the widest limit.

CASTS IN THE URINE.

Dr. Louis M. Warfield concludes his paper on this subject in the *St. Louis Medical Review*, of July 28, thus:—

1. The epithelial, granular, and hyaline casts have a common origin from the epithelial cells of the convoluted tubules by a degeneration and metamorphosis of the cells.

2. Casts alone or casts and albumin give no definite data as to the anatomical kidney condition. They may be found in greatest numbers in non-nephritic conditions, and, *vice versa*, in the severest grades of nephritis there may be few or none.

3. Casts alone have no diagnostic or prognostic value, except after frequent examinations, and then only after a careful physical examination.

4. Epithelial, blood, and pus casts are more common than is generally supposed. They may occur in a great variety of conditions and do not merit the significance usually given them.

5. The discovery of hyaline casts on repeated examination means a subacute or chronic kidney lesion. Their number is not of such importance as the length of time during which they occur.

DIET IN GOUT.

A very important rule is the drinking of non-alcoholic liquids between meals; the quantity of fluid taken during meals should be small, as digestion proceeds better when the gastric juice is not too much diluted, but the more water we can get the patient to take between meals the better. I am a firm believer in the benefits to be obtained from taking water before breakfast and occasionally during the day, for instance at 11 o'clock, and in the afternoon, when it may be taken in the form of well diluted tea. It is rational to endeavor to flush the system as much as possible, and so get rid of the deleterious chemical products in the circulation. Effervescing drinks do not suit the majority of gouty patients.

Simple meals, the limitation of carbo-hydrates, the avoidance of alcohol, and the drinking of large quantities of liquids between meals are the most important points in the diet of the gouty.—Alfred W. Sikes, in *The Antiseptic*.

THE CHOLOGEN TREATMENT OF GALLSTONES.

Dr. Charles D. Aaron, in the *Medical Fortnightly*, of St. Louis, remarks thus in his paper:—

The chologen treatment of cholelithiasis is founded upon the theory of its being primarily a nervous affection. The first step is to influence the secretory nerves of the liver in such a way as to restore their harmonious function, so that the hepatic secretion again becomes normal. We may then expect that no further stones will be formed, and that those which have already been formed will become disintegrated. It is not impossible that this process really takes place more often than we realize without medical assistance, especially when patients are removed to other and more healthy conditions of life which causes the hepatic functions to become normal again. The quantity of bile-salts contained in the human bile fluctuates between wide margins—according to Lando's between six and eleven per cent. The idea might be conceived, and, indeed, has been conceived, to select these bile salts, sodium glycocholate and sodium taurocholate as suitable agents to dissolve gallstones. It was found that although these salts are excellent cholagogues by considerably increasing the quantity of bile, they do not better the proportion of the bile constituents in the desired direction. They increase the quantity, but do not improve the quality of the bile. This is unfortunately the case with most of the cholagogues. For this

reason all the hopes that were placed in remedies of this kind were destined to disappointment.

There is no single drug or substance which will produce these manifold effects, nor is there any single combination which answers all individual requirements. After hundreds of experiments Glaser has fortunately succeeded in preparing three mixtures which answer the purpose in almost all cases. But even these mixtures have sometimes to be combined with each other. They consist of mercury, podophyllin, melissa, camphor and caraway in different proportions and are made into tablets called chologen.

These tablets are prepared by Rosenberg, of Berlin, Germany.

INCUBATION PERIODS AND DURATION OF INFECTIOUSNESS OF CERTAIN COMMUNICABLE DISEASES.

DIPHTHERIA.

Incubation period. Least, unknown; average, two days; greatest, seven days.

Period of observation of exposed persons. Seven days from last exposure to infection.

Infective period. From the commencement of symptoms during the whole period of the illness and convalescence, and until repeated bacteriological examinations show that the specific bacillus has disappeared. The bacillus persists in the mouth and throat for a considerable time after the false membrane has vanished. It is not safe, therefore, to permit patients who have recovered, even although their tonsils appear healthy, to mingle with other persons until at least fourteen days shall have elapsed since the disappearance of the membrane.

Sources of infection. 1. From a previous case of diphtheria. 2. From a case of apparently simple tonsillitis or sore throat. 3. From a case of apparently simple nasal ulceration. 4. From domestic animals (cats, pigeons, fowls) suffering from a throat infection. 5. From infected cows' milk. 6. From infected bedding, clothes, carpets, curtains, books, toys, drinking cups, spoons, forks, lead pencils, etc. 7. From a person who has been in contact with the diphtheria patient, but who has not himself contracted the disease.

SCARLET FEVER.

Incubation period. Least, less than twenty-four hours; average, one to three days; greatest, seven days.

Period of observation of exposed persons. Seven days from last exposure to infection.

Infective period. From the earliest appearance of symptoms (usually sore throat) until all desquamation has ceased.

Sources of infection. 1. From a previous case of scarlet fever. 2. From a case of sore throat without discoverable rash, but really a mild form of the disease. 3. From infected milk. 4. From infected books, toys, dishes, garments, etc.

MEASLES.

Incubation period. Least, four days; average, nine to ten days; greatest, fourteen days.

Period of observation of exposed persons. Fifteen days from last exposure to the infection.

Infective period. From the earliest appearance of symptoms until convalescence is well established. The catarrhal stage preceding the eruption is very infectious.

Sources of infection. 1. From a previous case of measles.

MUMPS.

Incubation period. Least, fourteen days; average, twenty-one days; greatest, twenty-five days.

Period of observation of exposed persons. Twenty-five days from last exposure to infection.

Infective period. From the onset of the prodromal stage (which may last three or four days) and for two or three weeks subsequent to the appearance of the parotitis. The chance of the infection being propagated diminishes progressively from the onset of the parotitis.

Sources of infection. 1. From a previous case of mumps. 2. From infected articles.

GERMAN MEASLES.

Incubation period. Least, five days; average, eighteen days; greatest, twenty-one days.

Period of observation of exposed persons. Twenty-one days from last exposure to infection.

Infective period. From the onset of the prodromal or pre-eruptive stage until the cessation of desquamation.

Sources of infection. 1. From a previous case of German measles. 2. From infected articles.

INFLUENZA.

Incubation period. Least, less than twenty-four hours; average, three to four days; greatest, five days.

Period of observation of exposed persons. Five days from last exposure to infection.

Infective period. From the earliest onset of the symptoms until convalescence is well established.

Sources of infection. 1. From a previous case of influenza. 2. From infected articles.

WHOOPIING-COUGH.

Incubation period. Least, seven days; average, not determined; greatest, twenty-one days.

Period of observation of exposed persons. Twenty-one days from last exposure to the infection.

Infective period. During the whole of the illness from the onset of the earliest catarrhal symptoms.

Sources of infection. 1. From a previous case of whooping cough. 2. From infected articles.

SMALLPOX.

Incubation period. Least, nine days; average, twelve days; greatest, fifteen days.

Period of observation of exposed persons. Fifteen days from date of last exposure to infection.

Infective period. From the onset of initial symptoms until all scabs have been removed. The period of greatest infectivity is during the acute stage (vesicular and pustular). During the initial illness, and until the appearance of the rash, the liability to impart infection is not great; therefore, isolation of a case very shortly after the appearance of the eruption, when associated with measures of vaccination, re-vaccination and disinfection, is very commonly effective in preventing further spread of the disease.

Sources of infection. 1. From a previous case of the disease. 2. From infected articles.

CHICKEN-POX.

Incubation period. Least, thirteen days; average, fourteen days; greatest, nineteen days.

Period of observation of exposed persons. Nineteen days from date of last exposure to infection.

Infective period. From the appearance of the eruption until this has entirely disappeared.

Sources of infection. 1. From a previous case of the disease. 2. From infected articles.

TYPHOID FEVER.

Incubation period. Least, eight days; average, twelve to fourteen days; greatest, twenty-three days.

Period of observation of exposed persons. Twenty-three days from last exposure to infection.

Infective period. The excreta are infectious throughout the whole course of the disease and for undetermined periods thereafter.

Sources of infection. 1. Water and food contaminated by the specific bacteria contained in the excretions of an enteric fever patient. 2. Polluted well-waters may remain infective or retain the infection latent for long and unknown periods after the original mode of infection has ceased to operate. 3. The food most often implicated in the production of enteric fever is cows' milk which has acquired its infectiveness by the addition to it of water polluted by excreta, or by contact with cans and utensils which have been infected by polluted water, or by contact with unclean hands. Outbreaks of enteric fever have been traced to ice cream, herb beer and other drinks manufactured on premises where enteric fever has existed. 4. Shell-fish grown in waters receiving sewage have caused enteric fever, and flies have been shown to be carriers of the disease. 5. The attendants upon enteric fever patients may become infected by taking meals with unwashed hands. 6. Instances are known where washerwomen have contracted the disease from handling infected clothing or bedding of enteric fever patients. The infection may persist for several weeks in infected clothing and bedding shielded from contact with light and air.

TYPHUS FEVER.

Incubation period. Average, seven days.

Period of observation of exposed persons. Fourteen days from date of last exposure to infection.

Infective period. From the commencement of illness until convalescence.

Sources of infection. From a previous case of the disease. The virulence of the contagion is rapidly destroyed by fresh air and free ventilation combined with cleanliness, so that the spread of the infec-

tion is generally observed only in the overcrowded and insanitary quarters of the poorest class of the population in industrial towns.

VACHER'S TABLE.

DISEASES.	Time from inception to beginning of eruption.	Time from first precursory symptom to beginning of eruption.	Time from beginning of eruption to cessation of pyrexia.	Time from beginning of eruption till patient ceases to be infective.
Small-pox	13 days (range, 7 to 21 days.)	2 days (range, a few hours to 7 days.)	14 days	56 days.
Modified Small-pox....	13 days (range, 7 to 21 days.)	2 days (range, a few hours to 7 days.)	14 days	35 days.
Chicken-pox	13 days (range, 4 to 17 days.)	2 days (range, a few hours to 3 days.)	5 days (range, 3 to 7 days.)	17 days.
Measles.....	14 days (range, 7 to 21 days.)	4 days (range, 1 day to 9 days.)	6 days	27 days.
German Measles.....	14 days (range, 10 to 20 days.)	1 day (range, nil to 3 days.)	7 days	14 days.
Scarlatina.....	4 days (range, a few hours to 14 days.)	1 day	7 days	49 days.
Diphtheria	5 days (range, 1 day to 14 days.)	2 days (range, a few hours to 4 days.)	14 days	28 days.
Idiopathic Erysipelas.	5 days (range, 2 to 14 days.)	1 day	14 days	35 days.
Typhus Fever.....	19 days (range, a few hours to 28 days.)	7 days (range, 3 to 7 days.)	7 days (range, 7 to 14 days.)	21 days.
Typhoid Fever	21 days (range, 1 day to 28 days.)	7 days (range, 7 to 12 days.)	21 days (range, 14 to 28 days.)	28 days.
Mumps	15 days (range, 8 to 25 days.)	4 days	7 days	21 days.

—From the New Jersey State Board of Health.

AFRICAN RELAPSING FEVER.

Typhosus Recurrens Africanus has been the subject of special study by Professor Robert Koch. This disease is very common in certain regions throughout East Africa, and especially along the lines of travel—the caravan routes.

After much search he found that the spirochæta of the disease was also found in the bodies of a certain tick, the ornithodoros moubata. These ticks receive the spirochæta by feeding upon infected persons, monkeys and mice.

In a short time the spirillum passes from the stomach of the tick to its ovaries, and in this way infects the young tick, which appear to be mainly responsible for the spread of the disease.

The tick hides in the ground during the day, coming up at night to suck blood from men, monkeys or mice, and perhaps other animals. These ticks can be found in the earth of the huts where the people live, specially at the posts supporting the tent walls, or their beds.

The spirillum or spirochæta has the appearance of that found in the blood of patients suffering from European relapsing fever, or the spirillum Obermeieri. The African relapsing fever differs slightly from the European form of the disease clinically, but the difference is not marked.

This is a very important discovery. It proves that one more disease owes its etiology to an insect which acts as the intermediary host for the infective germ or parasite. It is also important in another respect, namely, that relapsing fever, syphilis and trypanosomiasis are caused by varieties of spirochæta.

These discoveries are of the utmost importance from the standpoint of prevention. Once the life habits of the tick are known, ways and means will surely be found to get rid of it. The terror of yellow fever is now almost a thing of the past, and ague will soon lose its foothold.

INSECTS AND LEPROSY.

From Hawaii, Sandwich Islands, comes word of what may prove to be a very important discovery. Dr. E. S. Goodhue and Dr. W. J. Goodhue have been studying the etiology of leprosy from a new standpoint. They have had excellent opportunities for their work at the Molokai Leper Settlement. As the result of their investigations they have found the bacillus of leprosy in the body of a variety of mosquito and in that of the common bedbug. He thinks the bedbug is the more likely of the two to be the active cause in spreading the disease. It is quite true that similar researches have been made by others and with negative results. In Japan the belief is quite prevalent that the mosquito spreads leprosy. It may be that useful results may flow from these investigations.

The neglect of science has long stood as a strong indictment against both public and private wealth. Professor E. Ray Lankester, in his presidential address before the British Association for the Advancement of Science, contended that the most important thing to-day was to discover men of research and support them.

SURGERY.

Under the charge of H. A. BEATTY, M.D., M.R.C.S., Eng., Surgeon Toronto Western Hospital; Chief Surgeon Ontario Division, Canadian Pacific Railway; and Consulting Surgeon to the Orthopedic Hospital.

THE TREATMENT OF GALLSTONES.

In the *St. Louis Medical Review*, June 23rd, 1906, Edmund A. Babler, advocates early surgical intervention in the treatment of gallstones.

Early operation—operation just as soon after the diagnosis as the patient's condition will permit, and before the stones have left the gall bladder—has a very low mortality, and the patient is practically safe from a recurrence. Mayo has seen but one recurrence in 1,200 cases.

In favour of early surgical intervention, the writer urges:—

1. A mortality of only 0.5 per cent.—about the same as that of appendicitis.
2. The patient is prevented years of suffering and anxiety.
3. The distressing pathological changes—perforation, carcinoma, empyema, common duct obstruction, pancreatitis with fat necrosis, cholangitis, abscess of the liver, obstruction of the bowels, etc., are prevented.
4. The operation is easily and quickly performed.
5. Secondary operation and postoperative hernia are obviated.
6. Recurrence does not occur.

FRACTURE OF THE EXTERNAL TUBEROSITY OF THE TIBIA
BY INDIRECT VIOLENCE.

Dr. Potherat (*Bull. et mém. de la Soc. de Chir. de Paris*, No. 4, 1906; *Brit. Med. Journ. Epitome*) reports an instance of a form of fracture involving the head of the tibia, which, though classed in surgical literature as a rare injury, has, it is stated, been proved by radiographic research to be really a not very rare complication in severe cases of supposed sprain of the knee. This injury consists in an isolated fracture of the external tuberosity of the tibia, the line of fracture extending from the cartilaginous surface of the bone just outside the tibial spine, downwards and outwards to the external surface of the tibia a few centimetres below the tibioperoneal articulation. This fracture involves the whole of the anteroposterior diameter of the bone, so as to form a pyramidal and triangular fragment with base above and apex below, comprising the whole of the external tuberosity of the tibia. In the

author's case the head of the fibula remained in its normal position, and the shaft of this bone was intact along its whole extent. There was a slight lateral displacement of the head of the bone, giving the appearance of a thickening of the upper extremity of the tibia. On forcible movement of the head of the fibula backwards and forwards crepitus could be made out, the existence and nature of the fracture being subsequently demonstrated by the use of the X-rays. The injury in the case reported by the author was caused by the kick of a horse, received on the middle of the shaft of the fibula, and not applied directly to the head of this bone or to the upper extremity of the tibia, and is regarded as an instance of forcible detachment of the external tibial tuberosity caused by indirect violence.

PRIMARY TUMORS OF THE URINARY BLADDER—A STUDY OF FORTY-ONE CASES AT THE MASSACHUSETTS GENERAL HOSPITAL.

Lincoln Davis (*Annals of Surgery*, April, 1906), says that stone in the bladder is not an etiological factor of importance in the causation of these tumors, but that the condition of the underlying bladder-wall in regard to epithelial infiltration is the most satisfactory and reliable guide in the determination of the benign or malignant character of papillary epithelial tumors of the bladder. If the foregoing condition is accepted as the differential test of these growths, then will the benign forms commonly called papillomata, be found at least to equal, if not to outnumber, the malignant, the papillary carcinomata.

Recurrent epithelial tumors are not necessarily malignant, but papillary tumors of the bladder, proved to be histologically benign, may rapidly lead to a fatal result if let alone. Surgical intervention, at the proper time, in the case of pedunculated papillary tumors of the bladder, offers a very fair chance of long immunity, if not permanent cure. The method of surgical intervention to be preferred in these cases, is excision of the tumor in toto, with a margin of bladder-wall at its base, including mucosa, submucosa, and muscularis in part; the section need not penetrate the entire thickness of the wall. In this way, a beginning epithelial infiltration of the base, if present, may be circumvented; or if it is not present, the knowledge of the fact is of great value in the important matters of diagnosis and prognosis. The defect in the bladder-wall should be closed with sutures, which will at the same time control haemorrhage. The gravity of the operation is not appreciably increased by this procedure.

TREATMENT FOR APPENDICITIS.

F. D. Gray reviews Ochsner's methods and statistics. The writer believes that eventually mouth starvation, rectal feeding, gastric lavage, if indicated, and small saline enemata, will be accepted as essential even in cases in which the surgeon believes it either unwise or unsafe to attempt to wait for the interval. He thinks that the question of immediate *versus* later operation in complicated cases will never be fairly settled until some competent surgeon has the opportunity to treat in some one modern hospital a large number of appendicitis cases. This number should be at last five hundred, better one thousand. If, in these cases only the conservative or waiting policy, and then on a like number the radical treatment were tried, conclusions of value could be drawn. Or, two competent men could make the same comparison on the same number of cases under as nearly as possible the same circumstances and surroundings. The writer concludes by speaking of some of the technical details of the operation.—*Medical Record*, July 28, 1906.

THE SOCIOLOGICAL ASPECTS OF GONOCOCCUS INFECTION.

Not many years ago gonorrhœa was regarded as a very ordinary ailment, and was treated more as a joke upon the victim than as a serious disease. But as clinical experience became wider, and fuller knowledge was gained of the gonococcus, these views gave way to the more correct ones that gonorrhœa takes a place among the most important of the many ailments to which human flesh is heir. In a recent issue of the *American Journal of Surgery*, Dr. Prince A. Morrow, of New York, contributes an article on "The Sociological Aspects of Gonococcus Infection." Dr. Morrow is known to be an authority on venereal diseases, and what he has to say will receive attention. One of his first statements is "that it causes 50 per cent. of all deaths from inflammatory diseases peculiar to women, practically all the pus tubes, more than 75 per cent. of the suppurative pelvic inflammations, and 50 per cent. of all gynecological operations performed by surgeons."

He goes on to point out that a distinctive feature of gonococcus infection is that it affects too generally and seriously the organs of generation. In this way it plays a very important role in the productive energy of the family. When Noeggerath was pointing out the far-reaching effects of gonorrhœa, many of his views were looked upon as quite fanciful; not so now, however.

"It is estimated that the husband is directly responsible for about 20 to 25 per cent. of the sterility through his own personal risks from

the disease,—either from the blocking up of the seminiferous tubes or from changes in the character, motility and vitalizing qualities of the spermatozoa. In addition, as the husband, though not sterile himself, may, by reason of his gonorrhœa, infect his wife, rendering her sterile, he is ultimately responsible for about 75 per cent. of all sterility in married life. Lier-Ascher found in 132 married couples when the husband was examined, 42, or 31.4 per cent, with azoospermia, 11, or 8.3 per cent., impotent, 41 had infected their wives with gonorrhœa. Hence he concluded that the ultimate responsibility of the husband for sterility is 71.2 per cent.

In the male, the gonococcus may work great ravages by causing epididymitis, prostatitis, cystitis, vesiculitis, strictures, and, ultimately, disease of the kidneys. The infection may invade the system and cause much injury to the joints and heart. Neisser holds that these effects of the infection render many males sterile.

In discussing further the effects of the disease on women he states :—
 “A most conservative estimate is that of Neisser, who agrees with Bumm that 30 per cent. of all cases of primary sterility in women are due to gonorrhœa. The chief social danger of gonorrhœa as a depopulating factor is, however, the creation of secondary sterility, or, as it has been expressively termed, ‘one-child sterility.’”

On the matter of blindness, he claims that at least 25 per cent. is due to gonorrhœa. “In the institutions for the blind the percentage is much larger—40 per cent. in Paris, 30 to 50 per cent. in this country. In 1,498 cases of blindness collected by Stephenson 60.17 per cent. were of gonorrhœal origin.”

In Germany it is thought that there are about 40,000 who owe their loss of sight to this cause.

It must also be remembered that the infection may remain in the genital mucous membranes for many years. “Brief reference may be made to accidental infections in family life—usually from the gonorrhœa of the parents. The significance of the vulvo-vaginitis in young girls has been very much accentuated by observations which show that in many cases it practically ruins the reproductive apparatus of its victim. The characteristic of gonococcus infection in children is to remain for a long time quiescent, apparently cured, and then develop insidiously, causing obscure pelvic symptoms, salpingitis, peritonitis, etc. It was long ago pointed out that many cases of undeveloped uteri, resulting in dysmenorrhœa and sterility, may be due to gonorrhœal infection in infancy.”

When the loss of time, suffering, and outlay in money for treatment are added to the above, the vast importance of the disease becomes

apparent. Surely the time will soon come when boards of health and governments will take steps to have suitable information upon gonorrhœa and syphilis brought to the attention of the educators of the youth of the land. This is too serious a matter for a little sentiment to smother up.

GYNÆCOLOGY.

Under the charge of S. M. HAY, M.D., C.M., Gynæcologist to Toronto Western Hospital ;
 Consulting Surgeon Toronto Orthopedic Hospital.

THE STEM PESSARY FOR AMENORRHOEA AND DYSMENORRHOEA.

In the section on Obstetrics and Gynæcology at the American Medical Association meeting, Boston, June, 1906, J. H. Carstens, of Detroit, presented a paper with the above title.

Carstens believes the stem pessary to be the most useful mode of treatment when it is desired to bring on a regular menstruation where it is absent or occurs at long intervals.

The same may be said of those cases where the flow is scanty and various nervous symptoms are produced, a condition often found in fleshy women; in dysmenorrhœa, where there is no other pathologic condition, but only that state commonly called neuralgia; or where we find a small uterus or especially a small cervix, a condition often found in middle aged unmarried women who have for five or ten years menstruated normally. It is also valuable in slight flexions or displacements with recurring stenosis producing sterility, and will sometimes cure, if I may use that expression, the last named condition. The counter-indications are, acute or latent pelvic inflammation of whatsoever kind it may be. I must especially and emphatically warn against this condition. *If there has been inflammation of the tubes or ovaries, or if there are adhesions, the stem pessary should not be used.* The greatest care must be exercised on this point.

Any general practitioner is able to introduce a stem pessary, no specialist is required. This article is simply written for the benefit of the general practitioner, who, I know, has so much trouble with the kind of cases above described. In conclusion I will say:—

First: The stem pessary will generally cure amenorrhœa after all other means have failed.

Secondly: It will develop an infantile uterus and enlarge a prematurely atrophied one, and restore a superinvolutional womb to a normal condition.

Thirdly: It will cure most cases of intractable dysmenorrhoea, where no special pathologic condition can be found.

Fourthly: If worn for six months or a year it sometimes cures sterility.

Fifth: All inflammatory conditions about the pelvic organs must be rigidly excluded before it is used, and the same aseptic precautions should be taken during its introduction, as a surgeon would with the most complicated case of abdominal surgery.

GONORRHOEAL CASES.

Of 1,098 patients treated at the Johns Hopkins Hospital Dispensary, Women's Venereal Department, 670 came for gonorrhoea or its complications. Of these, 289 had more or less grave complications, excluding urethritis or cystitis. There were—

Seventy-eight cases of Bartholin's abscess, 11.3 per cent.

One hundred and seventeen cases of pelvic inflammation, 17.5 per cent.

Thirty-one cases of pus tubes, 4.6 per cent.

One child had ischio-rectal abscess.

One had a gonorrhoeal stomatitis.

Eight children developed peritonitis.

Six cases, or one per cent., had arthritis. This is probably too low, but the patients who do develop it usually do not come to this department, either being unable to walk, if it is in the lower extremities, or going to the medical or surgical sides whenever arthritis develops.

Forty-eight, or about 7.5 per cent., had bubo, *i. e.*, a gland which suppurated, or was so large as to be one of the causes which brought the patient to the dispensary.

It is interesting to note how very rare gonorrhoeal ophthalmia is in the adult, only one case occurring, so far as I know, in this number, and that an eight-year-old girl who was referred to me by Dr. Mills for vaginitis, the ophthalmia being at that time quite well. The one great factor, so far as I can judge, which tends to make the new born so susceptible and the adult so immune, is, I think, to be found in the lachrymal secretion, which the new born do not develop for from three weeks to three months after birth. I know it is not the absence of organisms which protects the adult, for all of the children (who as far as the eye is concerned are adults) cry and rub their secretion-covered hands into their eyes, and yet but one has contracted ophthalmia.

As there seemed to be a difference in the opinions of various authors as to the involvement of the female urethra in gonorrhoea, I studied the cases with this end in view both subjectively and bacteriologically, though no cultural experiments were made. Each case was examined for the gonococcus, and it was found that out of 688 cases in which a record of this was made (for I examined the luetic as well as the purely gonorrhoeal cases for it)—

Four hundred and sixty-six, or 68 per cent., had urethritis.

One hundred and seventy-three, or 25.1 per cent., had no symptoms.

Thirty-eight, or 5.9 per cent., developed urethritis from two to eight years after.

One developed urethritis first.

One had a urethritis only, and never had vaginitis, or at least not so long as she was under observation.—Flora Pollack, M.D., in the *Maryland Medical Journal*.

APPENDICITIS AND GYNECOLOGICAL DISEASE.

Bollenhagen (*Brit. Gynec. Jour.*, Feb., 1906), contends that there are several factors which may lead to error: There is the anatomical position of the appendix, which may be attached not only to other neighboring organs, but even to the uterine adnexa. Moreover, owing to the uncertain position of the appendix, the symptoms—even the seemingly characteristic pain—cannot be looked upon as definitive, since pains arising in the genital organs might be referred to the same place. Differentiation is possible, if it can be made at all, only by means of bi-manual palpation. A wandering kidney may be at fault. Gynecological disorders which may be mistaken for appendicitis are: Torsion of the pedicle of an ovarian tumor, a condition in which adhesions are very frequent, especially in small tumors of the right ovary; interrupted extra-uterine pregnancy; and, most frequently, inflammations of the true adnexa, in which one has to depend entirely upon the case-history, since a diagnosis is hardly possible during the acute stage. Even in recurrent cases, in which one may have to do with large adnexal tumors, the diagnosis may be uncertain, since the pyosalpinx may be high up in the abdomen. In chronic cases the difficulty is not so great. Palpable lesions may be found in the right adnexa, while the pains will be referred to a supposed inflammation of the cæcum and the like. Sometimes by combined examination one may discover an exudate or other lesion in Douglas' pouch, which may be dealt with per vaginam.—*The Medical Times*.

PERILS OF INTRAUTERINE INSTRUMENTS.

Jakob (*Zent. f. Gyn.*), in a thesis on the dangers of intrauterine instrumental treatment, has collected 141 cases of perforation of the uterus and others of alleged sounding of the Fallopian tube. The perforations were caused by the curette in 73 cases, the sound in 19, the dilator in 16, the ovum forceps in 14, and the nozzle of a syringe in 6. In 64 cases the uterus had been gravid, 30 being abortions, 34 puerperal. In 12 cases instruments were used for metritis independent of gestation, in 7 for malignant growths, in 3 for removal of a polypus, and in 1 the uterus was perforated during the application of the tampon after abortion. In 5 cases of perforation the case was under treatment for retroflexion, in 4 a fibroid uterus was perforated. Rupture of the uterus during pregnancy occurred in 4 cases where there had previously been instrumental perforation. Jakob declares that he has collected 7 authentic cases where the sound entered the tube, 23 out of the 141 cases of perforation ended fatally, mostly through septic peritonitis, whilst in 77 no grave symptoms were noted. When danger threatens the patient after an intrauterine wound, abdominal section, with or without extirpation of the damaged uterus, is indicated. In some cases the iodoform gauze tampon, or even opiates and application of ice, have proved sufficient. In two cases where spontaneous healing occurred abdominal section was necessary afterwards on account of extensive adhesions.—*British Medical Journal*, July 21st. [It seems almost incredible that so many cases of perforation through the incompetence of operators should have come under the observation of one man. There are, no doubt, a very large number of reckless gynæcologists who never take into consideration the dangers connected with the use of the curette, the sound, and the ovum forceps.—*Med. Times and Hosp. Gaz.*

A REVIEW OF THE SURGERY OF THE FEMALE PELVIC
ORGANS.

Dr. Gordon, of Portland, Me., believed that true conservatism was that which had for its object the cure of the patient, no matter how many organs might be sacrificed. He reviewed briefly the surgery of twenty-five years ago, paying special attention to the work and influence of Battey. There were many at that time who injudiciously removed ovaries, owing to erroneous teaching. In the cases in which the ovaries were properly removed the mistake was often made of retaining the

uterus. In his belief the uterus should always be removed when the adnexa were removed. He was conservative enough to believe that it was often wise to retain an ovary or part of an ovary, that menstruation might continue. The work of Dudley and Polk in this direction had been extensive, but had not always been followed by desirable results. In many of the cases disease in the portion which was retained rendered the woman more uncomfortable than she had been at first. It was his belief that Battey's operation had done more harm than good, and he was inclined to think the same was true with reference to conservative resections of the ovary. The latter should not be performed unless there was a reasonable prospect that the portion retained was perfectly healthy.—From the *N. Y. Med. Jour.*, July 21st, 1906.

THE RELATION OF LACERATION OF THE CERVIX TO THE DEVELOPMENT OF CANCER.

West (*Yale Medical Journal*, Nov., 1905), states that he has never seen a single case in which carcinoma had developed in the uninjured cervix. Every case has been distinctly traceable to one which had been injured. He quotes Craig to the effect that investigation of the subject does not reveal evidence of a single case of carcinoma occurring in a successfully repaired cervix, excepting where trauma had subsequently occurred, while Smith notes that cancer has nearly disappeared from his clinics simply because women are no longer allowed to go around with the cervix full of scar tissue. West notes that the majority of patients who present themselves with the disease have already passed the operative stage, and even in those who still appear to be operable, although the prognosis as to recovery from operation is good, prospect of a radical cure is absolutely nothing. One surgeon is quoted as having operated 200 times for cancer of the cervix with a universal record of return. None the less, it is stated that all cases offering even faint hope, should have the benefit of a combined vagino-abdominal hysterectomy with removal of tubes and ovaries and as much of the broad and round ligaments and adjacent tissue as possible within the limits of safety.

Since early diagnosis is absolutely imperative for any success, every practitioner should be perfectly familiar with the first symptoms of the affection. These are leucorrhœa, or serous discharge, not necessarily with a bad odor, and irregular bleeding. Pain is not often present. Hemorrhages and chocolate-colored discharges with bad odor are symptoms of advanced stages.

THE PROPHYLAXIS OF ABDOMINAL ADHESIONS.

In the *Amer. Jour, Obst.*, (Mch., 1906), Crumston says it is only the adhesions following abdominal operations that can be, to any extent, prevented. The strictest asepsis is of the greatest importance, and the peritoneum should be dealt with as gently as possible and should be kept warm and moist during an operation. This is best done by covering the exposed parts with warm moist gauze sponges, wrung out of normal salt solution. All raw surfaces should, if possible, be stitched over with healthy peritoneum. The peritoneum should be sutured by a separate suture—best applied by Lambert's method. In the case of recurring adhesions, the raw surfaces may be isolated by inserting between them an organ possessing an intact endothelial covering; the omentum, for instance, in cases of Cæsarean section, may be brought down between the uterus and the abdominal wall, wound, and so prevent adhesion. Great care is necessary in the case of an omental stump. The best method is in keeping the serous surfaces in constant motion, so that no two raw peritoneal surfaces remain in contact with one another long enough to result in union between them. If this can be attained, the endothelium will regenerate and a physiological protection against adhesions thus accrues. The methods to be employed are stimulation of peristalsis immediately after an abdominal operation, massage of the abdomen, and deep respiration. To promote peristalsis immediately after operation, use physostigma subcutaneously and continue it three times daily for a few days.

OBSTETRICS AND DISEASES OF CHILDREN.

Under the Charge of D. J. EVANS, M.D., Lecturer in Obstetrics, Medical Faculty,
McGill University, Montreal.

TETANUS OCCURRING POST-PARTUM.

Dr. S. J. McNamara reported to the Brooklyn Gynæcological Society the case of a primipara, who was taken to the hospital December 15, 1905, after unsuccessful attempts at delivery at home. She was delivered of a dead foetus by version. Two days after delivery she complained of stiffness of the jaws, which was thought to be due to manipulation during anesthesia. The patient felt well and made very light of her sore jaws. The temperature for the first week never went above 100 degrees, except the post operative rise immediately after delivery. The pulse

ranged from 80 to 100. On the tenth day it ranged from 72 to 80, and on the eleventh day 56 to 60. The lochia was moderate in amount.

The stiffness in the jaws continued. Restlessness and insomnia became prominent symptoms, necessitating the administration of bromide and chloral and an occasional hypodermic of morphine. The next day she complained of pain and rigidity in the muscles of the neck and chest posteriorly. Chloral and bromides in very large doses were continued with but very little quieting effect. Morphine hypodermically produced sleep for short intervals. One hundred and twenty grains of chloral and two hundred and forty grains of bromide of potash per day failed to produce any noticeable diminution in the restlessness, or in the number of convulsions. At the end of two weeks the jaws were firmly set, admitting the end of a clothes-pin, which was kept there to prevent her biting her tongue when convulsive seizures came on. The number of seizures varied greatly. At times she would have one every five minutes for an hour, and then they would lessen in number. The attempts to administer food or medicine or to use the douche increased the frequency and force of the seizures.

Fourteen days after the onset of the disease tetanus antitoxin was procured. Twelve c. c. were administered in the morning and the same quantity at night. The rigidity and spasms extended down the back into the limbs. The spasms occurred every five minutes during the night. The temperature at this time was 102 degrees. The temperature had arisen some hours before the administration of the antitoxin. Next day fifty c. c. were injected with no sign of improvement. The seventeenth day sixty c. c. were given. The patient was very noisy and delirious, but slept three hours after a hypodermic of morphine. The pulse was 130, weak and irregular, temperature 104 degrees. The next day forty c. c. of tetanus antitoxin were injected and the following day forty c. c. The entire posterior surface of the patient's body was like a board. From the twentieth to the twenty-fifth day the amount of tetanus antitoxin administered was gradually decreased. After the twenty-sixth day there were no convulsive seizures, and the patient made a fairly rapid convalescence from what was thought at times to be an almost hopeless condition.

The antitoxin was not used sooner because of its doubtful value as a therapeutic agent. How much it had to do with the result, it is impossible to say, but the speaker believed it should be given the credit. No history could be obtained from the patient of an injury, even a scratch or abrasion that might serve as a point of infection, and the onset so soon after delivery made it highly improbable that infection took place in the parturient canal.—*Brooklyn Medical Journal*.

HYDRORRHOEA GRAVIDARUM.

Alfred Austin London, M.D., Lecturer on Obstetrics, University of Adelaide, Australia, writing in the *Australian Medical Gazette*, remarks on the above condition as follows:—

The nature of the disease and the source of the fluid have been matters for speculation for some time. Modern authorities attribute the discharge of fluid to a chronic catarrh of the endometrium, and dignify the affection with the name of endometritis decidualis catarrhalis vel glandularis; they assert that there is a glandular hyperplasia of the decidua, with persistence of the glandular ducts, as well as of the potential space between the decidua vera and the decidua reflexa, which is said to be normally obliterated during the fourth month of pregnancy. But it would almost appear as though from the solitary symptom which can be recognized clinically they have artificially constructed a morbid condition of the decidua to meet requirements. At all events they adduce no evidence of the disease having been met with post-mortem, although, if wrong, I should like to be corrected upon this point. If endometritis existed previously to the pregnancy we should expect it to cause abortion in an earlier stage of pregnancy. Nor does the statement that "this condition precludes the fusion of the decidua vera and reflexa" appear to be justified, seeing that it is less usual for it to appear during the early months of pregnancy. Assuming this space to be closed in the usual manner, there does not appear to me any great difficulty in imagining that the reflexa may be again separate from the decidua vera, for it is difficult to understand what organic adhesion can take place between two mucous surfaces whose vitality is maintained; pressure apposition may cause the two layers to appear to be united in the same way that two sheets of paper may be compressed so as to be with difficulty separated.

More important perhaps than these theoretical considerations is the question as to whether the fluid could be derived from any other source than the decidua. Could it be amniotic fluid? Now it is generally asserted that the escape of this fluid is inevitably soon followed by the onset of labour. Whilst this rule holds good generally, there have been notable exceptions reported, such as Matthews Duncan's case, where there was an interval of forty-five days, at the end of which a remarkably compressed, though living, foetus was born, and there are instances of paracentesis having been performed through an error of diagnosis, without interruption of the pregnancy. Then, again, there is a possibility of water being discharged from a cavity persisting as a relic of the coelom between the amnion and the chorion. Such I have thought might have

been the source of the fluid in a case such as the following:—Mrs. M. saturated her bed with “waters,” and I remained all night in expectation of being wanted; the birth was deferred for thirteen days. But it is less easy to explain by this theory a case such as that of Mrs. N., who felt a gush of water come from her on March 10th, which was followed by pains; she sent for her nurse, but nothing further happened till the 15th, when a similar gush occurred, and she sent for me; but there was no sign of true labour till the 27th, when it took place precipitately. I should doubt whether we need seriously consider the possibility of such an amount of fluid as I have described coming either from the cervical glands or those of Cowper. Water might escape from a second ovum, which was retained in utero after the rupture of its amnion.

THE VALUE OF ERGOT IN OBSTETRICS.

The employment of ergot in labor has been argued a good deal pro and con. There are some who always use it and others who use it only on such occasions as may seem to call specially for it. The opinions, as set forth by a number of well known obstetricians, in a symposium which appeared in the *Therapeutic Gazette*, of January 15th, cannot fail to be instructive upon this subject.

Dr. E. P. Davis, Professor of Obstetrics in Jefferson Medical College, states that he uses ergot in some form in the great majority of cases of labor. The only contra-indications to its employment is excessive hæmorrhage with a depleted condition of the vessels and a feeble heart. In these cases intravenous saline transfusion is employed, with strychnia, and, if necessary, digitalis. Ergot may be used during the convalescence of such cases to promote uterine contraction. In cases of severe hæmorrhage the heart is too much depressed for the employment of the drug. The ergot is not given till the child is born and the placenta is ready for expulsion. In this way the normal action of the uterus in separating the placenta is not interfered with. He advises ergot should be combined with strychnia, and that aseptic ergot may be given hypodermically. Ergot should not be given to rouse some contractions of the uterus until the child is born.

Dr. Barton Cooke Hirst, Professor of Obstetrics, University of Pennsylvania, remarks that he uses ergot as a routine in all cases of labor. He thinks that every precaution should be taken to guard against the occurrence of post-partum hæmorrhage. He gives it as soon as the child's body is born. The contra-indication with him to its administration is nausea and vomiting. When this is pronounced or the

patient has to be anæsthetized after the child is born he gives the ergot hypodermically. He has never noticed any disadvantage arising from its use, such as hour-glass contraction.

Dr. J. Chalmers Cameron, Professor of Obstetrics in McGill, uses ergot in all cases of labor, unless contra-indicated, but he does not give it until the uterus is completely emptied—that is after the expulsion of child, placenta and membranes. He urges that ergot should not be given in cases of eclampsia, where free bleeding is desirable. He has used it as a routine for 22 years.

Dr. Stucker Coles, Lecturer in Obstetrics in Jefferson Medical College, gives ergot after every case of labor, but never until the uterus is empty. He waits until the placenta is expelled. When it cannot be given by mouth he employs aseptic ergot hypodermically. When given in 20 to 30 drop doses three or four times a day it promotes involution. He has never seen any bad effects from its use.

Dr. Wilmer Krusen, Professor of Gynæcology, Temple College, Philadelphia, does not think that ergot should be used as a routine in all cases. The indication for its use is an unsatisfactory retraction and contraction of the uterus after it is completely emptied. He has found it useful after chloroform anæsthesia, when there is a tendency for the uterus to remain uncontracted for a time. He condemns its use until the completion of the third stage of labor. It is useful in post-partum hæmorrhage by contracting the uterus. Ergot and strychnia, continued for a time after labor, lessens the risk to sepsis by aiding in involution.

RESEARCHES ON SYPHILIS OF THE PLACENTA.

V. Wallich and C. Levaditi, having made microscopic studies of the placenta in cases of syphilis, come to the conclusion that, from the anatomical-pathological point of view, spirochaetæ have been found in a majority of cases in the fetal portion of the placenta, and that rare parasites have been distinguished in the maternal portion of the placenta, it being impossible to say whether the latter micro-organisms penetrated into the placenta before or after delivery. The spirochaetæ have a perivascular arrangement, which is comparable to the location of the parasites found in the organs of the new-born subjects of hereditary syphilis, and in chancre. From the clinical point of view, the spirochaetæ have been found in the placenta only in the cases where there were evidences of syphilis in the fetus. Therefore, it is difficult to diagnosticate from a histological examination of the placenta with reference to the presence

or absence of spirochaetæ, syphilis of the parents, or to make a prognostication as to the future health of the child.—*Boston Medical and Surgical Journal*.

INFANTILE CONVULSIONS.

Dr. H. Harold Scott, in his article in the *Practitioner* (British), goes fully into the causation of infantile convulsions. He limits his remarks to "violent, involuntary, and irregular muscular contraction accompanied by partial or total loss of consciousness." He points out that convulsions may arise from two sources: Excessive stimulation of muscles, with normal amount of control or inhibition; or lowering of the power of control, with normal muscle stimulation.

The more important causes are given as:—

1. Irritation in cerebral disease, either cortical, dural, or due to pressure from within.

2. Traumatism, such as depressed fractures, or causing hæmorrhage or shock from injuries to any part of the body.

3. Reflex irritation, as the eruption of the teeth, gastric and intestinal disorders, worms, and peripheral nerve irritation.

4. At the onset of an acute infectious fever from some toxæmic condition, or from the sudden rise of temperature.

5. Rickets. This is often associated with laryngismus stridulus, and perhaps with general convulsions.

6. From poisons such as strychnia, lead, and from the toxins of some diseases, tetanus, pneumotoxin, etc.

7. In congenital heart disease, associated with marked cyanosis.

8. There may be some association between epilepsy and the convulsions of infancy.

9. Convulsions caused by fright and strong emotional disturbances.

10. With regard to age, nearly 50 per cent. of fatal cases occur in the first month of life.

11. As to heredity, while convulsions are not inherited, the nervous instability may be, and predispose the child to convulsions.

"Summing up, therefore, in conclusion, we have as predisposing causes: Age, heredity and rickets, and, as more direct causes, first cerebral irritation, either from disease, traumatism, or shock; secondly, reflex disturbances, which may be numerous and varied, as examples may be cited dentition, gastro-intestinal disorders, worms, peripheral

nerve irritation, as in earache or glottic spasm; thirdly, less common forms, such as at the onset of acute specific fevers, in congenital heart disease, and in cases of poisoning; lastly, the fits may be true epileptic, or as a result of a fright or strong emotion—Money's cortical epilepsy."

More than one cause may be present in any given case.

PNEUMONIA COMPLICATING PREGNANCY.

Dr. John A. Wessinger, of Ann Arbor, in a recent issue of *American Medicine*, reviews this subject and gives many interesting statistics. He concludes his paper thus:—

Some authors maintain that abortion is followed by resolution of the pneumonia and they therefore advise the induction of labor. But on the other hand, it is very evident that pneumonia will resolve without such procedure. Some affirm that the enlarging gravid uterus impinges seriously upon the lung space and thus compromises respiratory movements. But this is amply compensated for, since Kuchenmeister and others long ago demonstrated conclusively that the pulmonary capacity is not lessened during pregnancy. "That if the thorax is not so deep, this diminution in depth is compensated for by the increase in breadth of the base of the chest, and that after delivery the chest resumes its usual shape." Wernich, Hegar, Martin, Gusserow, and other German authors are positively opposed to the induction of labour in these cases, because they, one and all, maintain that the sudden change of pressure within the thorax, from the rapid emptying of the uterus, invariably results in fatal pulmonary edema. Grandin and Garman voice the sentiment of the great majority of American authors when they say, "The position of the physician as regards pregnancy during pneumonia must be passive. It will avail nothing, either for the woman or the fetus, to induce abortion or premature labour." In conclusion, I would say that artificial interruption of pregnancy during pneumonia should not be altogether rejected, as after every other known method has been applied without avail, premature delivery may turn the tide of an otherwise fatal issue. The woman is certainly entitled to a last chance for her life. But in the great majority of cases results will be better if we limit ourselves to a thorough, scientific, medical, as well as hygienic treatment.

Dr. George F. Still claims that in congenital syphilis, suffles will be found in 70 per cent. of the cases, syphilitic skin lesions in 69 per cent., laryngitis in 14 per cent., epiphysitis in 11 per cent., bone diseases in a large percentage, and enlarged spleen in 30 per cent.

OPHTHALMOLOGY AND OTOTOLOGY.

Under the charge of G. STERLING RYERSON, M.D., C.M., L.R.C.S., Professor of Ophthalmology and Otology Medical Faculty of the University of Toronto.

ACCIDENTAL VACCINATION OF THE CONJUNCTIVA.

Dr. A. G. Brinton relates (*Transvaal Medical Journal*, May, 1906), six cases. The symptoms presented were great edema of eyelids and conjunctiva, out of all proportion to the damage done, the formation of a hard ulcer which went through the usual stages of a vaccine pock. A large amount of serum was poured out, causing the eyelids to adhere and enlargement of the lymphatic glands in the neighborhood of the orbit. Beyond an extension of the swelling, and deep parts were unaffected, no symblepharon resulting in any case, and in only one of the six was the eyeball affected. Permanent pock marks were left in all cases on the lids.

THE RESULTS OF EXTRACTION OF CATARACT UNDER (APPARENTLY) ADVERSE CONSTITUTIONAL CONDITIONS.

E. F. Drake-Brockman, F.R.C.S., communicates to the *Ophthalmoscope* (June, 1906), his experience in relation to the various constitutional disorders, while removing cataract, as follows:—

1. Constitutional syphilis, 19 operations with 18 recoveries.
2. Anemia, 33 cases with 31 recoveries.
3. Valvular disease of the heart, 31 operations with 29 recoveries.
4. Albuminuria, 15 cases with 14 recoveries. All were chronic in character. A few were treated with fuchsine Gr. 1 twice daily and all with regulation of diet.
5. Elephantiasis, 30 cases with 28 recoveries.
6. Diabetes, 38 cases with 33 recoveries. The specific gravity ranged from 1024 to 1045. Several of these patients were treated with iron, ergot, nux vomica and codeia, and regulation of diet.
7. Varicose veins, 6 cases, all successful.
8. Leprosy, 44 cases, all successful. These were aggravated examples of the disease.
9. Opium eaters, 3 cases, no failure. In one case the daily consumption of the drug was 32 grains. In the second case, 24 grains. In the third case, the amount of the drug used could not be ascertained. While under treatment the drug was continued in smaller doses.

10. Ovarian disease, which was successful. The tumor was of large dimensions.

11. Pregnancy, 2 cases, successful.

This is a remarkable list and should give encouragement to those operators who fear to tread the paths of operation in constitutional dyscrasiae.

HYDATID CYST OF THE ORBIT.

This rare condition is reported by Dr. H. B. Willoughby (*Transvaal Medical Journal*, May, 1906), as having occurred in a Zulu boy aged ten. There was marked protrusion of the right eye and ptosis of the upper lid. All the contents of the orbit were displaced forwards, the lower half of the cornea being in a condition of pannus. The pupil was not dilated. A hard tumor could be felt at the back of the orbital cavity, slightly to the inner side.

An incision was made through the upper eyelid close to the superciliary ridge. The tumor, when exposed, was found to be cystic and, on aspiration, about two drachms of clear, watery fluid were drawn off, and, on opening the cyst cavity, a quantity of endo-cyst wall and daughter cysts were removed. The eyeball fell back into its place as soon as the cyst was emptied. Microscopical examination showed numerous scolices and hooklets of the tania echinococcus. The wound was drained and the pupil dilated under atropine, the cornea cleared up to a considerable extent and the patient was discharged with fair vision.

THE PATHOGENIC BACTERIA OF THE EYEBALL.

J. E. Weeks, New York (*Journal A. M. A.*, August 4), enumerates the different micro-organisms that attack the eyeball, describing the lesions, points of attack, etc. Twenty-one species, he says, attack the cornea, either primarily or secondarily to infection elsewhere or in the course of a general panophthalmitis. The *Staphylococcus pathogenes aureus* is named as the most frequent bacterial agent of corneal infection, but it requires a specially favoring condition of the cornea to make it pathogenic. Among the organisms primarily affecting the cornea may be mentioned the *Bacillus ulceris corneae* of zur Nedden, which is frequently found, according to the author, in the superficial marginal ulcer so frequently seen in elderly persons. The most common fungus infection is that from *Aspergillus fumigatus*. The sclerotic is very resistant

to invasion and rarely subject to ulceration. The tubercle and the lepra bacilli are mentioned as secondarily causing its infection. The principal micro-organisms producing general infection of the globe are the staphylococci, *Streptococcus pyogenes*, the pneumococcus, *B. subtilis*, *B. coli communis*, *B. perfringens* and *Aspergillus fumigatus*, but infections by the four last named species seem to be rare. The micro-organisms that affect various parts of the globe by metastasis are: Actinomycosis, pneumococcus, staphylococci, streptococcus, tubercle bacillus, typhoid bacillus and the meningococcus. Metastatic infection by the first of these, however, is not very well established. The chief infecting organisms of the iris are the bacilli of leprosy and tuberculosis, the gonococcus, pneumococcus, staphylococcus and streptococcus. Other species, primarily affecting other parts, may extend their action to the iris, but this is only a feature of the general infection of the globe. Primarily invasion of the vitreous is very rare, if it ever occurs, and the lens probably suffers only through penetrating wounds. Exogenous infection of the retina may occur from any of the pathogenic organisms in other tissues and endogenous infection by way of the blood and lymph channels may also occur. Metastatic optic neuritis is the last condition noticed and the suggestion that, after infectious diseases, it may be due to toxins, is mentioned as applying to post-diphtheritic papillitis, of which the author has seen a number of cases. Localized tuberculous infection of the optic nerve without demonstrable foci elsewhere has been observed. The syphilitic infections are purposely left unconsidered in this article.

THE PATHOGENIC BACTERIA OF THE CONJUNCTIVA.

E. A. Shumway, Philadelphia (*Journal A. M. A.* August 4), describes the principal pathogenic bacteria of the eye. Besides direct contact contagion, which is responsible for the majority of infections, he recognizes as possible methods, dust infection and droplet infection, as described by Flügge, the importance of which, he thinks, needs to be appreciated. The possible infection of the nose and throat by these organisms from the eye is also noted. The species most fully described are the Koch-Weeks bacillus, closely allied to the influenza germ, which is unconditionally contagious for the human conjunctiva, but has little resistance to drying and is, therefore, not likely to be conveyed by dust. While droplet infection or that by the medium of flies is possible, direct contact is probably the most frequent method. The Morax-Axenfeld diplo-bacillus is now recognized as a widespread and frequent cause of conjunctivitis, usually subacute, but sometimes acute and even compli-

cated with severe corneal ulceration. Dust infection by this germ is not very probable, but the droplet method is possible and infection by handkerchiefs, towels, etc., is probably of frequent occurrence. The pneumococcus is now recognized as one of the most common causes of acute conjunctivitis, and it is especially for this organism that air infection must be considered, as some of its forms retain their vitality in a dry state for long periods. The gonococcus, so well known as a cause of the ophthalmia neonatorum of infants, is but little resistant to drying, but is readily conveyed by contact or soiled articles or flies in a moist condition. It is probably less unconditionally contagious than has been supposed, as unocular cases are not infrequent, and Kalt has reported a failure of an inoculation in a trachomatous child. It is not so common a cause of conjunctivitis as might be expected considering the frequency of gonorrhoea, and Shumway suggests the possibility of a partial immunity of those with urethritis. The diphtheria bacillus is only moderately contagious to the conjunctiva, requiring certain conditions, especially injury or previous conjunctivitis, and the reaction varies according to the virulence of the germ or the resistance of the tissues. It is possible for a severe diphtheria pharyngitis to arise from a comparatively mild conjunctival inflammation. The micro-organism is quite resistant to drying, and, therefore, dust, as well as droplet infection is possible. Of the staphylococci the only one that can be considered especially pathogenic is the *S. pyogenes aureus*. Ordinarily the staphylococci are not pathogenic to the conjunctiva and do not cause epidemics. The streptococci are a cause of pseudomembranous conjunctivitis, either alone or with the diphtheria bacillus, but they are most commonly described in lachrymal conjunctivitis, in association with dacryocystitis (Parinaud's conjunctivitis). Epidemics of streptococcus conjunctivitis have not been reported, though there is some evidence of the possibility of contact infection. In any case the streptococcus can be considered as only slightly contagious to the conjunctiva. Other organisms are mentioned, the colon, pyocyanus and Friedländer's bacilli, the meningococcus, etc., but they are not considered important in this connection. The ultramicroscopic organisms reported by Rachlmann in trachoma, etc., require confirmation. We must still consider the organism of trachoma undiscovered.

Dr. G. C. Savage, in *J.A.M.A.*, in speaking of the rotation of the eyeball, contends that fewer than six muscles could not cause rotation in all directions, and more than six are unnecessary.

LARYNGOLOGY AND RHINOLOGY.

Under the charge of PERRY G. GOLDSMITH, M.D., C.M., Toronto, Fellow of the British Society of Laryngology, Otolology and Rhinology.

THE TREATMENT OF CASES OF MAXILLARY SINUSITIS IN WHICH THE NEIGHBORING AIR CELLS ARE NOT INVOLVED.

Dr. Furet, writing in the *Revue Hebdomadaire de Laryngologie*, 14th April, 1906, states that formerly he was an advocate for opening and curetting the majority, while it was only exceptionally he treated them by lavage, carried out by puncturing the wall of the sinus through the inferior meatus of the nose. For some years past, owing to the success he has had by the latter method, he has changed his opinion and finds that cases resisting this treatment and requiring operation are the exception. He uses a stout needle between four and five inches long for perforating the wall. This being joined to a syringe, the sinus is washed out with boiled luke-warm water. To combat foetor, hydrogen peroxide gently warmed on a water bath is used, and in long standing cases, after the cleansing, he may inject a small quantity of chloride of zinc solution 1:30. The washings out are performed on alternate days, or, when the supuration is very profuse, every day.

In recent cases the lavage is combined with menthol steam inhalations. Causes of failure are:—

- (a) Persistence of dental lesions.
- (b) The existence of granulations, etc., on the walls of the sinus.
- (c) The presence of diseased bone.
- (d) The co-existence of a frontal sinusitis.
- (e) A partition across the maxillary antrum.
- (f) Want of perseverance and patience in carrying out the treatment.

It is a favourable sign when the pus does not mingle with the water when the sinus is washed out, but falls down in a lump to the bottom of the basin. When this occurs, cure is not far off. This may happen after four or five washings out, or may be delayed till the thirteenth or fourteenth time.

In cases which show no improvement, the operation known as Caldwell Luc is performed. The sinus is opened through the canine fossa, is curetted, and an opening is made into the interior meatus of the nose. The buccal opening is closed at the time of operation, as it is found that in cases in which a permanent communication with the mouth is made, cure is much delayed.

AURAL VERTIGO.

In the *Boston Medical and Surgical Journal* Clarence John Blake reviews the subject of aural causation of vertigo, and says, "that, in view of the existing knowledge of normal conditions in the semi-circular canals, vertigo, of aural causation, may be regarded, primarily, as a pressure symptom; that pressure may be exerted upon the labyrinth by forces operating from without as the result of changes in the middle ear transmitting apparatus; that it may be produced from within by invasion of the intracapsular space, as in the case of hæmorrhage into the labyrinth; that the effect, upon the semi-circular canals, of intralabyrinthine pressure thus produced will depend, as to its intensity and duration, upon the locality and extent of the hæmorrhagic invasion; that the recurrent vertigoes are the result either of an excessive intralabyrinthine vessel dilatation, from suspense of vasomotor inhibition of reflex origin, either alone, or coupled with a persistent intralabyrinthine pressure, of either extrinsic or intrinsic origin."

THE INDICATIONS FOR OPERATING IN ACUTE MASTOIDITIS.

Philip D. Kerrison, in discussing this topic, says that the symptoms to be looked for when mastoiditis is suspected are mastoid pain, with consequent insomnia; elevation of the temperature; certain quantitative changes in the character of the discharge; mastoid tenderness, and bulging of the posterosuperior canal wall. The two symptoms usually considered pathognomonic are tenderness on pressure over the mastoid and bulging of the posterosuperior canal wall; but he shows that in either case these indications may prove deceptive. In acute purulent otitis mediâ pus is probably always present in the antrum, giving rise to tenderness on pressure but not necessarily indicating mastoiditis. The significance of this symptom varies with its position on the mastoid cortex and becomes greater as it extends downward below the level of the floor of the antrum. Bulging of the posterosuperior canal wall is due to periostitis extending from the vault and is not an indication of mastoid inflammation, which may or may not be present. The following is in part the author's summary of the indications for operation: (1) Sudden cessation of the aural discharge, other symptoms persisting; deep-seated pain in the mastoid region; marked sensitiveness to pressure upon the mastoid *over an area extending well beyond the limits of the antrum.* (2) In the absence of fever, the above symptoms, unless yielding promptly, *i. e.*, in twenty-four to forty-eight hours, to abortive measures. (3)

Marked tenderness over the antrum, persisting four to five days after free incision of Shrapnel's membrane. (4) Marked variations in the quantity of pus discharged; its maximum flow being, apparently, too great to be explained by the tympanic lesion; its periods of diminution being coincident with the development of mastoid pain or tenderness. (5) Mastoid tenderness having been present and having disappeared, a discharge from the tympanic vault, which resists all rational on-operative measures. (6) Finally, evidences of mastoid involvement having been present, the development at any time during convalescence of symptoms of septic absorption. The paper closes with a report of two cases.—
Medical Record

TREATMENT OF CANCER OF THE LARYNX.

Doctor John Noland Mackenzie (*Annals of Otolaryngology and Rhinology*, March, 1906), makes some positive statements in regard to this much dreaded disease. He states that in the present state of our knowledge there are three principal methods of diagnosis in laryngeal cancer :—

1. The naked eye method, or diagnosis by direct inspection, supplemented by clinical phenomena.
2. Thyrotomy.
3. The microscope.

Take it all in all, the first method is the most practicable and satisfactory of the three. The author insists very strongly on the application of the naked eye method of diagnosis in the case of malignant tumors of the larynx. Every recourse and refinement of clinical diagnosis, including the exclusion of syphilis by the iodides, and tuberculosis by tuberculin, should be resorted to before appeal to the microscope is made. By following the lead of the general surgeon, with the means of clinical diagnosis at our command, together with the more exact information concerning the naked eye appearances of the cut surface of laryngeal neoplasms, we will soon be in a position where we will be more and more independent of the pure pathologist for help in diagnosis.

The objections urged against the indiscriminate removal of tissue for examination, especially when done through the natural passages, are as follows :—

1. It subjects the patient to the danger of autoinfection at the point of incision and to metastasis elsewhere.
2. It stimulates the local growth of the cancer.

3. Finally, the method is often inconclusive, misleading, and sometimes practically impossible.

In practically all cases of laryngeal cancer, death is due to metastasis. In neighboring organs (the neck and mouth) metastasis takes place with certainty and at an early date. It is, therefore, probable that the glands of the neck are affected in cancer of the larynx, although perhaps not recognizable by the senses of sight and touch, at a much earlier period than is generally supposed. It is at all events safer to assume this to be the fact than to accept the statement, unsupported by definite anatomical proof, that cancer in the interior of the larynx remains for a more or less indefinite period as a purely localized disease, and does not get into the lymphatics of the neck until a late stage of the affection.

The author is very much opposed to intralaryngeal operation, and, in a general way, is pessimistic in regard to the permanent cure by surgical measures, although advocating the thorough removal of the growth if seen in the earlier stages.—*The Physician and Surgeon*.

FUNCTIONAL DERANGEMENT OF THE EARS AND UPPER AIR TRACT IN THE INSANE.

W. Sohler Bryant undertook these researches in order to show the relation, if any there might be, between insanity and functional derangement of the ear and upper air tract. Only three cases out of 161 had perfectly normal hearing. These patients were examined at the Manhattan Hospital. Although, as the author states, the number of cases is not large enough to prove any point conclusively, they suggest that nasopharyngeal or aural diseases are far more prevalent among the insane than among normal individuals; and that sometimes hallucinations of hearing appear to be excited by subjective sensations of hearing; and that aprosopie psychosis is sometimes aggravated, if not excited, by intranasal pressure. The prognosis for psychical improvement from treatment of the nasopharynx when nasal complications were a disturbing factor; and of the ear, when active aural disease is a disturbing factor, is good. The prognosis is bad when chronic inactive aural conditions are a disturbing factor.—*Medical Record*, August 25, 1906.

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EDITORIAL.

SOME GREAT DISCOVERIES IN MEDICINE.

What the world owes to Harvey no man can say; for his discovery of the circulation laid the foundation for modern physiology, which, in turn, is the foundation for pathology. The whole course of medical and surgical advance was vastly accelerated by the work of Harvey. It was what Harvey did in 1628 that made the work of Hunter, the surgeon, Haller, the physiologist, and Morgagni, the pathologist, the illuminators of the eighteenth century. When we see the artery tied, when we note the aneurism cured by the well-placed ligature, when we study the changes in the vessels in inflammation, or when we look upon the hardened liver, how often do we think of these men? But Hunter's work in surgery, Harvey's on the circulation, Haller's in physiology, and Morgagni's "*De Sedibus at Causis Morborum*" are foundation rocks upon which rests our present knowledge.

In 1798 Edward Jenner published his work on cowpox. While Jenner was a student of medicine under Hunter, he was influenced by the belief among some of the people in Gloucestershire that having contracted cowpox prevented smallpox. This was impressed upon his mind by the story of a young country girl. In 1789, he inoculated his two-year-old son with swine-pox and, later, to prove the protection, he inoculated the boy with the virus of smallpox, which failed to affect the lad. In 1796, he took matter from the hand of Sarah Nelmes, who had contracted cowpox, and with it inoculated James Phipps, who developed a typical vaccination. He afterwards tried to infect the boy with smallpox but without result. He proved that the cowpox could be taken from person to person for many times and still retain its potency to produce cowpox and to prevent smallpox. At the time when Jenner gave his observations to the world, smallpox caused the death of 70,000 persons in every million. In Germany, Great Britain, Canada and the United States, the disease now causes about one death per million, on an average of one year with another. The results would be even better if vaccination was more thoroughly performed. The British government gave Jenner £10,000, but £7,000 had been

already spent in his investigations, and £1,000 was deducted for fees, so that the immortal Jenner received only £2,000, or \$10,000, for the discovery of vaccination, whereas Graham Bell has received about \$20,000,000 for his discovery of the telephone!

Pasteur was quietly working away in his laboratory on the subject of fermentation, and showing that it was dependent upon various forms of bacteria. Working apart from him was a young Scottish surgeon who, with an intuition worthy Æsculapius, seized the idea, and gave it practical application in surgery. In 1878 he published his paper on "The Germ Theory of Fermentation and its Bearing on Pathology." The great thought of this paper was that wounds should be kept from bacterial life, which would greatly lessen the mortality in surgery. It is hard for one now-a-days to form an estimate of Lister's work for humanity, but some conception of it may be gathered from the fact that, prior to the introduction of antiseptic surgery, surgical wards often yielded a death rate of from 20 to 40 per cent.

Morton, Simpson—ether, chloroform—are words known the world over. The story of Simpson and chloroform in Edinburgh, in the years 1846-8, is well known, but that of Morton is sadder and less familiar. He was born at Charlton, Mass., in 1819. He studied dentistry in Baltimore in 1840, and medicine at Harvard in 1844. During these years he was working on the subject of anæsthesia. On October 16th, 1846, he publicly gave ether in the Massachusetts General Hospital for Dr. John Collins Warren. The operation was successful, and Warren said after it was over, "This is no humbug;" and Bigelow said, "This will go round the world." The pain that has been assuaged and the lives that have been saved by the introduction of anæsthesia no one can calculate. It was employed one hundred thousand times during the American Civil War. But Morton was neglected and died poor and broken-hearted in 1868. The United States government proposed a grant for him, but the president refused to sign it. Well might Hippocrates turn in his grave!

Semmelweiss and Holmes are names writ in gold on enduring marble. The one in America and the other in Austria were laboring on for the good of women who were dying of puerperal fever. Holmes lived to see his efforts crowned with success and his views accepted by the medical profession everywhere; but, alas for poor Semmelweiss, he was hounded and maligned until his sensitive nature was crushed and he died insane, notwithstanding that he reduced the death rate from puerperal sepsis from 10 per cent. to 1 per cent. in the Vienna Maternity Hospital. The teacher died, but the teachings remain. Galileo said, as he rose from the recantation of his teachings, that "the world

still moves." If Semmelweiss could only visit to-day a great medical convention, what a reception he would receive! There would be many outstretched arms ready to place upon his head the laurel wreath.

But there is a long cry from 1847 to 1906.

Truth is stranger than fiction, and the story of Drs. Reed, Lazear and Carroll in Cuba, and their work on yellow fever, transcends any novel. Dr. Lazear shut himself up in a room with mosquitoes that had bitten fever patients. He contracted the disease and died. Nine other volunteers acquired yellow fever by being bitten by mosquitoes which had fed upon yellow fever subjects. A series of counter experiments were conducted by placing persons in rooms with bed clothing that had been used by yellow fever patients; but the results were negative, so long as the mosquito was kept out of the apartments.

Since 1693 yellow fever has invaded the United States 95 times. The great epidemic of 1878 cost the country \$100,000,000. Well may the people erect a monument to commemorate the researches of Dr. Walter Reed. The victories of peace are greater than those of war. In every large city one can see monuments to the memory of celebrated generals, whose victories cost hundreds of thousands of lives; but to the memory of the medical scientists, whose victories have saved hundreds of thousands of lives, few, indeed, are the columns. In Havana, from 1860 to 1900, yellow fever caused 40,000 deaths. Since 1900, owing to the application of Dr. Reed's teachings, there have been no deaths.

Such men as Jenner, Lister, Morton, Holmes, Semmelweiss, Pasteur, Hunter, Harvey, Haller, Morgagni, Reed, have "made of pain a dream," and have in the truest sense "stood between the living and the dead." Such names are the imperishable beacons on the path of human progress.

"Every thought of all their thinking swayed the world for good, not ill; Every pulse of all their life-blood beats across the ages still."

THE PATHOLOGY AND PROGNOSIS IN EPILEPSY.

In the *British Medical Journal*, of March 3rd, Dr. John Turner, Assistant Medical Officer, Essex County Asylum, contributes an article on the pathology of epilepsy. He refers to the opinion of Hughlings Jackson, that the pathology of epilepsy was vascular, and states that his own observations bore out this view. He contends that fits are only one of the symptoms and may be absent throughout the disease. The contention which he sets forth in the paper "is that epilepsy is a disease occurring in persons with a defectively developed nervous sys-

tem associated with a morbid condition of the blood, whereby it shows a special tendency to intravenous clotting, and that the immediate cause of the fits is sudden stasis of the blood stream resulting from the blocking of cerebral vessels by these intravascular clots."

He directs attention to two very common features:—

(1) A variety of reserve cells, which represents an embryonic form, and have been shown to be common in imbeciles.

(2) The persistence in the brain of subcortical nerve cells.

He then refers to the fact that stasis of the blood will cause convulsions and also to the changes that are found in the vessels. He summarizes his findings as follows:—

The important changes found on the part of the nerve cells—

(a) A form indicative of imperfect development.

(b) Retention of the subcortical nerve cells. Also an indication of imperfect development.

(c) Either an acute form of cell change, similar to that produced by ligation of the cerebral arteries in a dog.

(d) Groups of darkly-stained, shrunken cells, representing a more chronic change, and very likely, at all events in some cases, the sequel of that just described.

On the part of the vascular system the changes are:—

(a) Large numbers of blood plates in the blood.

(b) Different forms of intravascular clotting, probably in large measure derived from amalgamation of the blood plates, but to some extent also probably due to destruction of red blood corpuscles.

(c) Small cortical hæmorrhages, which, in some cases, can be traced to rupture of a vessel blocked up by the aforementioned clot.

The correlation of the defectively developed and probably unstable nerve cells, with the local stasis of the blood stream resulting from intravenous clotting, is submitted as constituting the pathological basis of the epileptic fit.

On the subject of the prognosis of epilepsy, Dr. William Adred Turner, in the *Boston Medical and Surgical Journal*, for February 16th, offers a number of excellent suggestions. Sex plays but little part in the prognosis. Rather more males than females show arrest of the fits under treatment, but more females yield permanent cures.

As to hereditary influences, he states "a family tendency to either epilepsy or insanity, though offering no obstacle to the arrest of the seizures in favorable cases, materially increases the likelihood of the disease becoming confirmed and the supervention of dementia."

When the disease commences under ten years of age the prospects for arrest are not good and the chance for it becoming confirmed is

greater than when the attacks come on later in life. When the disease begins during puberty there are the greatest number of arrests and the lowest percentage of confirmed cases.

The earlier a case is brought under treatment the more hopeful the outlook.

Generally speaking, the longer the intervals between attacks the more promising are the results of treatment for arrest and avoidance of mental deterioration.

With regard to the character of the seizures, the major attacks offer a better prognosis than minor ones. The greatest number of arrests are found among those suffering from the grand-mal form of the disease. The petit-mal form is most likely to injure the mental faculties; and when the grand- and petit-mal forms are combined, the mind is very liable to suffer.

Long remissions may exist and be followed by a relapse, especially if the bromide treatment is discontinued. He lays down nine years as the time to judge whether a cure has been effected. Taking this time as the standard, there are about 10 per cent. of cures. A relapse after nine years' freedom is rare.

THE SANATORIUM TREATMENT OF PULMONARY TUBERCULOSIS.

The London *Lancet* recently submitted to those it considered most able to answer them a series of questions, soliciting their replies for publication.

In the January 6th number, of 1906, the replies are published at length. The questions were as follows:—

1. Has experience demonstrated the therapeutic value of the sanatorium treatment generally?
2. Are successful results obtained actually (a) in the well-to-do patients; (b) in the working classes?
3. In the working classes must an elaborate system of insurance be combined; and are convalescent homes necessary to prolong the treatment?
4. What are the arguments for believing that the educational value of sanatoriums will be great and widespread?
5. Sanatoriums are considered by some people as places where severe cases may be segregated, and by others as places where incipient cases may be cured. Ought there to be two sets of buildings?

6. What is a medical officer to say when he is asked whether a county authority or a private philanthropist is doing the best for the tuberculous by building a costly sanatorium?

Sir Richard Douglas Powell, Bart., K.C.V.O., unhesitatingly favors judicious sanatorium and hospital treatment and asserts that sanatoria are essential to success. His paper explains details at length and with ability.

Sir William H. Broadbent, Bart., K.C.V.O., M.D., Lond., F.R.C.P., Lond., gives an affirmative answer to all these questions and favors in answer to the 5th isolation and separate wards, but cannot be said to favor separate buildings.

Theodore Williams, M.D., Oxon., F.R.C.P., Lond., Consultant at the Hospital for Consumption at Brompton, answers these questions in the affirmative, and as to segregation, favors three classes of buildings: 1. A hospital for acute cases; 2. A sanatorium for patients with incipient and limited sessions; 3. A settlement or colony for assorted cases, where light employment might be utilized.

Dr. J. Kingston Fowler, M.A., M.D., Cantab., F.R.C.P., Lond., who is a Consultant at Brompton and Dean of the Faculty of Medicine at the University of London, refers in his answer to his well known paper on the open air treatment, read November 14th, 1899. He endorses the Nordrach system as confirmed by his experience and observation since 1899, which is:—

1. An absolutely open air life day and night, in sunshine, fog or rain.
2. No liegehalle.
3. An abundant diet, regulated by the physician in charge, who must attend at all the meals.
4. Rest before meals.
5. Exercises, regulated by the strength and temperature of the patient.

Dr. Fowler goes into extended details, and gives strong arguments and strong conclusions in support of his views. He thinks every hospital should have a sanatorium attached.

Frank J. Wethered, M.D., Lond., F.R.C.P., Lond., Physician to the Brompton Hospital and Assistant to the Middlesex Hospital, discusses details and results and does not give an unqualified assent, but says, while under certain conditions he concedes the value of sanatoria, they must be used wisely and intelligently to be of value. He doubts their value to the working classes, because the requirements could not be properly and successfully enforced.

Dr. Wethered has had too large an experience and too much observation to answer "yes" to these questions, and he explains the difficulty in putting reliance upon them unless essential conditions are consistently observed.

Dr. Arthur Latham, M.A., M.D., Oxon., F.R.C.P., Lond., Physician at St. George's Hospital, Assistant Physician at the Brompton, hesitates to endorse the sanatorium system.

He discusses the question, "Are sanatoriums worth while?"

He says frankly: "That sanatoriums in England which are worthy of the name can be counted on almost the fingers of one hand."

He discusses the value of sanatorium treatment by statistics, with great ability, quoting from Dr. Pollock and the German sanatorium for the working classes, and Dr. C. J. B. Williams' experience in 7,000 hospital cases. He contributes a very important, elaborate and careful study of the subject.

These questions and replies show that there is an enormous field for observation and study for the careful student in the whole sanatorium system. They illustrate marvellously how unwise and absurd it would be to accept the dicta or opinions of a superintendent of any one sanatorium as an authority. They are each of value so far as they go, but no sanatorium can now speak *ex cathedra*.

THE NATIONAL SANITARIUM ASSOCIATION.

The eighth annual report of this association has been issued. There are many features in it which are of a very encouraging nature. The amount of accommodation in Muskoka is steadily increasing and donations are still being received. Considering the great wealth of the Province much more money should be forthcoming than has been given.

The following table from Dr. Elliott's report of the work done in the Cottage Sanatorium is very instructive:—

During the eight years the sanatorium has been established 1,115 patients have been treated.

The following table shows the results of the various years, estimated in percentages:—

CLASSIFICATION OF PATIENTS DISCHARGED FROM THE M. C. S. DURING EIGHT YEARS.

	1st.	2nd.	3rd.	4th.	5th.	6th.	7th.	8th.
Apparently cured..	15%	24.2%	19.5%	15.1%	27.5%	20.9%	21.4%	8.5%
Disease arrested ...	28%	34.5%	32.4%	29.3%	44.2%	35.6%	34.3%	27.2%
Much improved ...	35%	16.2%	23.6%	26.3%	14.5%	26.1%	30.0%	38.0%
Stationary.....	13%	16.2%	11.4%	20.2%	7.9%	14.8%	8.4%	21.7%
Failed.....	6%	6.9%	12.3%	8.1%	3.9%	2.6%	3.7%	3.8%
Died.....	3%	2.3%	0.8%	1.0%	2.0%	0.0%	2.2%	0.8%

Dr. Parfitt's report on the Muskoka Free Hospital for Consumptives points out some of the urgent needs of the institution. Lack of funds has crippled the good work materially, but the report intimates that an effort will be made to maintain 75 patients instead of about 55, the daily average in the past. The following extract from his report goes to show what is being done for the patients :—

The fact that the average case has been of a better grade than last year is not shown by the arbitrary terms of classification used. Excluding all cases of doubtful evidence and those remaining less than one month, 17 per cent. incipient, 49 per cent. advanced, and 34 per cent. far-advanced cases were admitted, as compared with 18 per cent. incipient, 56 per cent. advanced, and 26 per cent. far-advanced cases in 1904. The results are, however, materially better, as there were 24 per cent. of arrested and 54 per cent. of improved cases discharged, as compared with 22 per cent. of arrested and 42 per cent. of improved cases discharged in 1904. The average length of residence has been four and one-half months. There is still much to be achieved both in admissions and results, however, when we consider that the Massachusetts State Sanatorium, an institution for the masses, managed on lines somewhat similar to this hospital, in 1904 admitted 45 per cent. incipient, 29 per cent. moderately advanced, and 26 per cent. advanced cases and, of these, discharged 45 per cent. as arrested and 45 per cent. as improved cases, with 7 per cent. unimproved. The average length of residence was five and one-half months. Furthermore, the Adirondack Cottage Sanatorium received in the same year 35 per cent. incipient, 63 per cent. advanced, and less than 2 per cent. far-advanced cases; while it discharged, after a residence of a little more than six months, 80 per cent. as apparently cured and arrested cases. There is no doubt that we can get equally good results here, but we must first receive the right kind of case to work with.

BIRTHS, MARRIAGES AND DEATHS IN ONTARIO.

The 35th annual report of the Provincial Secretary, Hon. W. J. Hanna, upon the vital statistics of the Province has just been issued. Dr. Hodgetts merits commendation for the intelligent manner in which he has set forth the facts.

The population of the Province is given as 2,203,968. During the year 1904 there were registered 50,265 births, being at the rate of 22.8 per 1,000, an increase of 0.7 per 1,000 over the previous year. Considering the fact that so many young persons go to the new provinces, this is regarded as satisfactory.

There were 19,789 marriages for the year, a falling off to the extent of 41, the rate being 8.9 per 1,000.

There were 30,920 deaths, or a rate of 14.1 per 1,000, an increase of 0.7 per 1,000.

The deaths from some of the leading causes were:—Tuberculosis, 2,877; cancer, 1,253; diseases of the nervous system, 3,694; diseases of the circulatory system, 2,367, of the respiratory system, 3,252; and senile decay, 3,411. There were 274 deaths from puerperal diseases, and 113 due to suicide.

“INFAMOUS AND DISGRACEFUL.”

Under the above caption, *The Toronto Globe*, in an editorial of 3rd August, attacks the action of the Ontario Medical Council for erasing the name of Dr. Crichton from the Medical register in the following language:—

“When the case of Dr. Crichton was before the Ontario Medical Council there were probably few who realized that the Council would proceed to the extremity of depriving Dr. Crichton of Castleton of the means of earning his bread. That amiable view of what the Council was likely to do cannot, unfortunately, be maintained any longer. Dr. Crichton’s privilege of practising his profession has been taken away from him, and so far as the Council cares or knows he may starve. For the most heinous crimes we send men to prison, but provision is made that while they are undergoing punishment they are assured of their daily bread. The punishments dealt out by the Ontario Medical Council, which may condemn a man to actual want, are therefore more severe than any known to the criminal law, with one exception.

When the Legislature conferred such drastic powers on the Council it was no doubt taken for granted that they would be employed sparingly and wisely. Those to whom they were given were members of a learned and urbane profession, and naturally enough the Legislature felt assured that they would never be used mercilessly and needlessly. They were not given for the protection of the profession, but for the protection of the public, and before an offender was subjected to their full rigors it would have to be shown that his practices were exceedingly harmful to the public, and productive of more than ordinarily evil consequences.

Was that the case in regard to the conduct with which Dr. Crichton was charged? Dr. Crichton believed that he had discovered a specific for the cure of la grippe. He advertised the fact in a pamphlet which he caused to be circulated. For this he was deemed by the Council

to have been guilty of "infamous and disgraceful conduct," and his name ordered to be erased from the roll. The plain question to be answered is, whether his comparatively trifling breach of professional etiquette could be properly described as "infamous and disgraceful," and whether in any sense the punishment fitted the crime. The public judgment will be, we think, that the Council in depriving a brother practitioner of his means of earning a livelihood under such circumstances was itself guilty of conduct to which the words quoted would be more applicable. It will be the general opinion that it is dangerous to give such extensive powers to a body which shows itself so little capable of wisely employing them. The matter must eventually come before the Legislature itself. There is surely some member who will have the public spirit to bring the case to its attention, so that so monstrous a wrong may be righted, and the legislation under color of which it is perpetrated examined and considered."

To the above, Dr. W. H. Moorehouse, President of the Ontario Medical Council, replied in *The Globe*, of 8th Aug., as follows:—

"To the Editor of *The Globe*—You have on several occasions made editorial reference to the case of Dr. Crichton, your comments showing that you have been misinformed. On the 3rd inst. you say:—'Dr. Crichton believed that he had discovered a specific for the cure of la grippe. He advertised the fact in a pamphlet which he caused to be circulated. For this he was deemed to have been guilty of 'infamous and disgraceful conduct,' and his name ordered to be erased from the roll.' Now, this is only, as you say, 'a breach of professional etiquette.' And if this were all the Medical Council would have taken no action. It has never yet disciplined a physician for a breach of medical etiquette; it has no power to do so. Here is Dr. Crichton's offence:—He publishes a pamphlet declaring that he has a secret remedy which will cure all cases of grippe in an hour or two; typhoid fever, pneumonia, smallpox and numberless other diseases are either cured promptly or ameliorated by his remedy. An official analysis showed this nostrum to consist of glycerine and a little hydriodic acid. The Medical Council evidently believed that no man acquainted with the action of different drugs—as a physician should be—could honestly advertise to the public that these two simple substances have any such marvellous power. In other words, the accused was disciplined for conduct which, in the opinion of the council, involved fraud.

"The council has not, however, deprived Dr. Crichton of 'the means of earning his bread.' He can still go on selling his nostrum to those who wish to buy it, the only difference being that he must do so as

a layman and not as a physician. Nor is he without recourse as to his sentence. The action of the Council is subject to an appeal to the court, and if he has justice on his side there is no doubt the council will have to reinstate him."

On a former occasion we criticised the attitude of *The Globe* on this case, as well as on that of Dr. Shepherd. The lay press ever and anon is attacking the Medical Council for its attempts to keep the medical profession of the province free from quackery and unprofessional conduct of every sort. But the medical profession must be on the watch or its rights may be invaded at any moment by injudicious legislation.

THE UNEMPLOYED AND DESTITUTE.

Canada, as compared with England, is prosperous so far as the working classes are concerned. Mr. Burns, the labor leader in the British House of Commons, a short time ago, asked for a vote of \$1,000,000 for the relief of the poor.

He spoke instructively of the relief work done last winter. About 67,000 men had applied for help, but for various reasons the applications of more than 17,000 had been rejected, leaving 50,000 to be provided for at the public expense. More than one-third of the people assisted were between the ages of 40 and 60; between 30 and 40 there were 28 per cent.; between 20 and 30, 26 per cent.; only 6 per cent. more than 60 years old, and 2 per cent. less than 20. 52 per cent. of the applicants were of the unskilled casual labor kind, and the building trade furnished hungry men to the number of 10,000. With few exceptions these hapless beings were not members of any union or friendly society.

He thought that relief works were vicious in principle, and should be provided only as a last resource. Farm colonies he considered as on trial, but from them he expected little. Emigration was the best remedy so far devised. That he should come to this conclusion is obvious, for he frankly declared that the majority of the unemployed were unemployable. As long as they remain in England they will have to be supported, unless they can learn a trade. The president of the Local Government Board proposes to take a hint from Ireland, and intimated that later on he hoped to present a scheme whereby small holdings of land may be allotted on which unskilled laborers will be able to support themselves.

Mr. Alden, of Tottenham, said that only by establishing a new industry could this be accomplished. He urged that there were 10,-

000,000 acres of land in the United Kingdom available for afforestation, and that 100,000 men might be thus employed. Mr. Burns promised that the experiment would probably be made on 8,000 or 10,000 acres set aside by the Government.

But the power of the Government to relieve the condition of the indigent poor has its limits. Much of the difficulty is with the unemployed and the poor themselves. The drink bill for Great Britain amounts to \$800,000,000 annually. At least \$250,000,000 are spent in sports, and a similar sum to remedy the consequences of both the drink and the sport. As soon as the working classes can learn the lesson of living industrious and sober lives, so soon will destitution in a great measure disappear. This was brought out very forcibly some time ago by Lord Rosebery, while discussing some phases of British trade.

THE NEW PROVINCIAL HOSPITAL.

A committee of the board favored the purchasing of a block of land south of College street, between University avenue and Elizabeth street, running southerly to Christopher and Hayter streets, with the exception of the Dental College, as a site for the new hospital, the cost to be \$550,000. The committee further recommended that Messrs. Rolph and Sproat be architects, with Mr. Curry as consulting architect. The recommendations for the site were subsequently approved, and recently the board decided against competition amongst architectural firms. The report then continues in part:—

Acting on these instructions, the board employed the National Trust Company to secure the site described. A few weeks ago notices of expropriation were served upon all the holders, and at present private negotiations are being carried on for the acquirement of such properties as can be secured in this way.

Many of the private subscribers to the hospital building fund have named a period of three to five years for the payment of their subscriptions. On the organization of the new board the \$200,000 from the city becomes due. Likewise, on the consummation of an agreement a few weeks ago between the trustees of the University and the trustees of the hospital, the \$250,000 from the Government becomes due, \$100,000 of which has been paid. In some sixty days the \$50,000 from the University direct will be paid. Particular conditions are attached to some of the subscriptions. The \$100,000 from Mr. Cawthra Mulock is to be used for an outpatient department. The \$100,000 given by the Hon. Mr. Cox is to be used for a memorial building to the late Mrs. Cox.

The \$100,000 from the Massey estate is to be used for a memorial building to the late Hart A. Massey. The \$50,000 from Mr. Timothy Eaton is to be used for a wing or ward as a memorial to his son, the late E. Y. Eaton.

It is not likely that the board will maintain the present General Hospital in the east end as a rival to the new hospital. Should this be the case, the east end will be without hospital accommodation, except such as may be furnished by St. Michael's Hospital. We do not hesitate to predict that before very long there will be a hospital east of the Don for the large and rapidly increasing population in that portion of the city. This, of course, would very seriously complicate the situation from the aspects of clinical teaching and clinical material.

The estimated cost of the site has gone up very much since the scheme was first announced. It was thought in the first place that \$250,000 would suffice for this purpose, but it appears that it is likely to call for \$550,000.

The hospital is spoken of as a Provincial one. But this cannot be from the standpoint of the medical profession at large. It can only be provincial in the sense of affording accommodation for patients of the Province. This may work seriously against both the doctors and the hospitals of the Province.

PROF. LOMBROSO ON MEN OF GENIUS.

In his paper it is pointed out that the great majority of men of genius are to be found in either of two classes—the tallest or the shortest. Among men of average mental attainments the greater number are of average height; of this class 16 per cent. are of high, 16 per cent. of low, and 65 per cent. of medium stature. Turning to men of genius, 37 per cent. are low, 41 per cent. high, and only 22 per cent. medium.

Most men of genius have a high brain capacity. Lebon, on examining the skulls of 26 men of genius, found that they yielded an average capacity of 1,738 cubic centimetres, a little more than 200 in excess of the average. There are some noted instances, however, of decidedly low brain capacity among those of exceptionally high claims to rank as geniuses.

In some geniuses the facial expression has been very irregular, coarse and large, and the head is sometimes extremely emaciated.

A common characteristic of the creative genius is contempt for the work of others.

Absent-mindedness is very common with the man of genius.

The gods must have an especial fondness for poets, for they have a decided way of dying young. Of 46 cases, showing an average age of 66 years, nine poets died between the ages of 26 and 37—Byron, Shelley, Keats, Leopardi and Poe among them.

Of 39 artists and sculptors, the average age attained was 60, one, Fortuny, dying young aged 36.

Of 30 musicians, with an average age of 62 years, Auber was 89 years old when he died, and Verdi 88; while four others died young—Bellini, Bizet, Schubert, Mendelssohn.

Poets are often precocious. Dante wrote a sonnet to Beatrice when he was nine years old, Mozart gave a concert at six, Tasso wrote verses at ten, and Pascal at thirteen. It is, on the other hand, true that some men have been backward, Alfieri, Wren, Humboldt, Linnæus, Flaubert and Domenichino, for instance.

Hatred of music has been a characteristic of some persons of genius, especially in literature, philosophy and history, *e.g.*, Johnson, Victor Hugo, Catherine II., Zola, Napoleon, Fontenelle and Gauthier. On the other hand, among ardent lovers of music have stood Aristotle, Daudet, Darwin, Goethe, Carlyle, Moore and Ruskin.

THE GRADED WARD SYSTEM.

In most of the large British hospitals there are but few semi-private wards. This form of accommodation is provided much more fully in the Canadian and American hospitals.

The problem of the great English hospitals is not solved, as it has been partly solved on this continent by the private ward system. It is true that most of the great hospitals have a few separate wards, but they are few indeed, and not properly graded in price. For the very rich there is adequate accommodation, and an adequate profit. For the poor there is provision, but the wants of the great middle classes are not met. They must either enter the hospitals on a par with millionaires or with charity patients.

There is every reason to believe that hospitals in the future will have to provide a properly apportioned amount of accommodation for all classes. This would do much towards making them self-sustaining. On the costs of hospitals, the following from an article by Dr. Gerster, of New York, which appeared some time ago in the *Medical Record*, may prove interesting:—

But soliciting and begging for more will not avail; the well-grounded presumption of faulty management and waste must be removed from the minds of those who can give. He gives a list of hospitals with the average daily expense for maintaining a patient. Bellevue (1904), \$1.30; German Hospital (1904), \$1.83; St. Luke's Hospital (1904), \$1.97; Mount Sinai Hospital (1905), \$2.00; Roosevelt Hospital (1903), \$2.34; Presbyterian Hospital (1903), \$2.50. It must be stated that these figures do not give correct ideas, as very divergent methods of computation obtain in New York hospitals, the systematic uniformity of the calculation of cost rigidly observed abroad being entirely absent. University of Pennsylvania Hospital, Philadelphia (1901), \$2.12; Boston City Hospital, Boston (1904), \$1.55; King's County Hospital, Brooklyn (1904), \$0.92; City and County Hospital, St. Paul, Minn. (1903), \$0.73. In London, during 1904: St. George's Hospital, \$1.53; Royal Free Hospital, \$1.05; London Hospital, \$1.55; St. Thomas Hospital, \$1.50; University College Hospital, \$1.85; Guy's Hospital, \$1.35. In Paris: Laviboisière Hospital, \$0.50; Civil Hospital, \$0.67. In Germany: Nuremberg, \$0.70; Eppendorf, near Hamburg, \$0.30; the average of all the larger hospitals being \$0.35. It is not sufficient for the benevolent to spend money on hospitals, but it is also their duty to see that their money should be economically spent.

Dr. Gerster urges retrenchment in the management of hospitals. This may not always be easy, as efficiency must be maintained. The true policy would seem to be the proper proportion of paying to non-paying wards. The cost in Paris and Germany is worthy of note as compared with other places.

WHY IT IS HARD TO FIGHT PROPRIETARY MEDICINES.

The following advertisement, taken from the *News*, of Toronto, speaks volumes as to why the lay press oppose the medical profession in its efforts to curb some of the evils of the proprietary medicine trade.

"Psychine in its great work of healing those diseases that lead to consumption, and even consumption itself, has naturally come under the notice of a large number of the clergy, and many of them have felt it their duty to let the public know what splendid results come from its use. Here are a few instances of what clergymen say:—

Rev. Jos. Obery, formerly of Broadway Tabernacle, Toronto: 'I have found Psychine to be one of the best remedies for throat and chest troubles that I know. It is prompt, efficacious and reliable.'

Rev. Wm. H. Stevens, Paisley, Ont. : 'Psychine seemed just the stimulant my system needed. I shall add my testimony as to its efficacy at every opportunity.'

Rev. R. M. Browne, Amherst Head, N.S. : 'I have often recommended Psychine since taking it myself, for I believe it is a cure for the troubles you specify.'

Rev. J. J. Rice, 51 Walker Ave., Toronto : 'My wife suffered two very severe attacks of la grippe, one of which threatened rapid consumption, there being a hereditary tendency in that direction. They were speedily corrected by Psychine, leaving no trace of the disease.'

Rev. Chas. Stirling, Bath, N.B. : 'I have used Psychine in my family; the results were marvellous. I have visited people who state they never used its equal. I have no hesitation in recommending it.'

Rev. J. S. I. Wilson, Markdale, Ont. : 'I have taken two bottles of Psychine, and am pleased to say that I am greatly improved in health. I was troubled with my throat, but now I find it about restored to its normal condition. I find my work very much less taxing. I have reason to believe that Psychine is all that is claimed for it.'

Where sickness is, there the minister of the gospel is found. His is the opportunity to note how the sufferer got relief, what furnished the relief and what caused the cure. Large numbers of the clergy of Canada recommend Psychine. They know, out of their experience, that it is the greatest preventive of consumption, the greatest builder-up of weak men and women science has given to the world."

The following is taken from the *Evening Telegram* :—

"Parents should safeguard their children against the scourge of this Canadian climate, consumption. They have to contend with the germs in the day schools, and in the Sunday Schools. Psychine will build the youngsters up, so their bodies are strong enough to throw off these germs. If the germs have already got a start, it will kill those germs."

The time is surely coming when ministers of the gospel will be more careful as to the lending of their names to the many proprietary medicines on the market. Ministers are too apt to frown upon the use of alcohol used in the ordinary way as a beverage, and then turn round and give a testimonial to some nostrum, the main ingredient of which is alcohol, or perhaps something worse.

THE MEDICAL COUNCIL AGAIN.

The recent action of the Medical Council in disqualifying Dr. Crichton has called forth a good deal of criticism in the public press, both in the form of editorial comments and correspondence from various parties. We have taken the position of upholding the Council in every possible effort to maintain a high standard of the profession in this Province, both academically as well as ethically.

We do not think that Dr. Crichton has improved his position by his letter which he published in the *Globe*, of 18th August, and which we give in another page of this issue. Dr. Crichton cannot defend the practice of advertising a secret remedy for any disease and retain, at the same time, membership in the Ontario College of Physicians and Surgeons. Whether such conduct in a member be regarded as fraudulent or as infamous, it is absolutely indefensible. If it were allowed in one case then the gates would be open to all, and who knows how many would be willing to avail themselves of the opportunity.

Dr. Crichton quotes from his own circular this:—"It will generally cure gripe in a few hours (often in less than two hours) if it is taken at the start." Now, we think this is an entirely improper statement for any doctor to make about a proposed remedy for anything, the composition of which is kept a secret.

Dr. J. Bingham's letter, which we publish, also appeared in the *Globe* of 18th August. We are sorry Dr. Bingham wrote the letter. He accuses the Council of "drifting into evil ways" when in session. We were of the opinion that the Council in session was making a strenuous effort for the good and welfare of the profession.

He then takes up the case of Dr. Crichton, but here, again, we think he does no good to the cause of the medical profession.

When he concludes that "there is a general impression among men of judicial training that the Council is not competent to try a fellow-practitioner on any charge," we think he errs. We believe the Council is the proper body for such purposes, and is calculated to be the most competent because of its knowledge of medical affairs and the needs of the profession.

The Council did not obtain the amendment to the Medical Act in 1891, enabling it to compel payment of the annual fee "in a stealthy manner." The change in the Act had to go before the Legislature in the usual way, and run the gauntlet of ordinary criticism. It is quite true that some medical practitioners formed "a medical defence asso-

ciation," but the Act remains unrepealed, because it was necessary, and the defence association passed out of existence long ago.

Dr. Bingham finds fault with the Council asking an obligation from those who obtain its license, that they will adhere to the standard of the Medical Council. The standard of the Council in this matter is nothing but what any honorable member of the profession would wish to see prevail, so that the young licentiates are not "being chained to the wheel of the foe by links which a world cannot sever." Dr. Bingham states that "the form of this oath has been kept from the public with Clan-na-Gael secrecy." We are not aware that this is so, as every candidate subscribes to it, and any one may see it. We publish the declaration, which, we think, will not justify the statement: "And thy sentence is bondage forever."

1. That I am the person named in the above written application.
2. That the answers to the questions therein above contained are of my own proper handwriting.
3. That the said answers are true in substance and in fact.
4. That I promise to comply with the "Ontario Medical Act," and amendments thereto.

PERSONAL AND NEWS ITEMS.

Dr. Kelly, of Walford, and bride, arrived home from the west.

Dr. W. K. Colbeck, of Grand Valley, has sold out to Dr. Charles Gaviller.

Dr. Robert has located in Delhi, Ont., and has occupied the office of Dr. Wells.

Dr. C. D. Secord, of Harrietsville, has gone to Edmonton, where he intends to practise.

Dr. J. M. Gordon, of Ripley, has temporarily retired from practice on account of ill-health.

Manuel Garcia, the inventor of the Laryngoscope, died in London recently at the age of 102.

Dr. Niven, of London, has recovered from a severe illness. Dr. Knox Niven took his practise.

Dr. Perry G. Goldsmith, formerly of Belleville, has purchased 84 Carlton street, Toronto, where he has located.

The remains of Dr. Cram, who was drowned in the rapids near Ottawa, have been found. They were taken to Carleton Place for interment.

Dr. Francis J. Shepherd, of Montreal, has been elected president of the Montreal Art Association.

Dr. F. G. Finlay, Montreal, met with a severe injury a few weeks ago through a street car accident.

Dr. A. W. Keane, formerly a house doctor in Toronto General Hospital, has decided to locate in Essex.

Dr. Fissette, of Brantford, has gone to take a special course of instruction in the treatment of chronic diseases.

Dr. J. E. Bromley, of Saskatoon, paid a visit to Pembroke, Ont., his old home, called there by the illness of his mother.

Dr. Crichton, of Castleton, Ont., who was deprived of his license by the Medical Council, will appeal to a court of law.

Dr. A. B. Atherton, of Fredericton, N.B., has been elected president of the Maritime Medical Association, which will meet next year in St. John, N.B.

Dr. Charles O'Reilly, for so many years the successful and esteemed medical superintendent of the Toronto General, has commenced practice at 52 College street, Toronto.

At the manse, on Wednesday, July 4, Miss Bessie C. Pearson was married to Dr. George Stewart Wilson, of Palmerston, by Rev. James Abrey, B.A., of Granton.

Dr. F. Schaudinn, whose name has been so intimately associated with the discovery of the spirochete of syphilis, died a few weeks ago of septic infection, at the age of 36.

A short time ago a boy was brought into the Dundee Infirmary (Scotland) with a punctured wound in his heart. The wound was sutured and the boy made a good recovery.

Congratulations to Drs. C. A. Porteous, of the staff of the Verdun Hospital, Quebec; F. W. Marlowe, of Toronto, and A. A. Lovett, of Paris, Ont., who were married recently.

Mr. D. R. Wilkie, president of the Imperial Bank, has been appointed a member of the General Hospital Board, in place of Mr. W. F. Maclean, M.P., who has resigned.

Among the recent marriages we note those of Dr. W. J. Brown, of Lindsay, Ont.; Dr. Wm. Nixon, of Westaskawin, Alta.; Dr. D. M. Anderson, of Toronto, and Dr. V. C. Thorn.

The charge against ex-Ald. Dr. Lynd, of Toronto, for accepting a bribe in connection with Puddy Brothers' permit for an abattoir has been withdrawn this morning in the Police Court.

Dr. McCullough, of Mt. Pleasant, one of the best known doctors of Brant county, has sold out his practise in that place. There is some chance of the doctor locating in Brantford.

The Samaritan Hospital for Women, Montreal, is now in its new quarters, 394 Dorchester street. It has 30 beds, a number of them being free. The private rooms are open to any physician in good standing.

There was a meeting of the Building Committee of the Ontario Medical Council. The object of the meeting was to consider the purchase of a site for the proposed new college building. The members of the committee differed so widely in the matter of cost that no agreement was reached and the purchase was postponed.

Sir Michael Foster thinks that bacteriological research may show that microbes, so far from being enemies of humanity, play an important part in providing the nation's food. He states that there has hitherto been a lack of any study of the part which microbes play in the work of the soil and the plant. We hear a good deal, he says, of microbes as enemies, but there are microbes which are our very good friends, and some of the best of them are those working silently and unseen in the soil.

The following gentlemen, having complied with the requirements prescribed by the Quebec College of Physicians and Surgeons, have recently been licensed to practice medicine and surgery in the Province of Quebec:—Drs. Jos. T. E. Bosquet, Alf. J. Champagne, J. N. Perusse, A. B. Chandler, J. A. Cousineau, James C. Fyshe, Lucien Derome, R. W. Geddes, J. W. Mulligan, E. E. Robins, John J. Walker, J. A. Leduc, F. A. C. Scrimger, Raoul Lerose, Louis Verschelden, Odilon Beaudry, Zachary Lefebvre, A. Desjardins, Ariste Laurin, Arth. Denis, Henri St. George, D. Benoit, Arth. Charbonneau, T. A. Lomer, D. D. Macrae, Jos. O. Beauchamp, H. C. Church, Edgar Browning, Wm. A. Ainsley, B. Conroy, A. McG. Young, J. H. Mason, Nathan Schacher.

A coroner's inquest was held in Peterborough recently to inquire into the death of Arthur N. Randlett, traveller for the J. C. Ayer Company, Lowell, Mass. He has been living with R. J. Todd, reader for the Christian Scientists. Randlett died on 16th August from Typhoid fever. The inquest brought out the fact that Dr. Boucher was called in by Mr. Todd an hour before Randlett's death. The patient had been between July 18th, when his illness came, and one hour before death without medical advice. Dr. Gray, coroner, spoke of Christian Scientists as "persons walking on the boundary line of insanity and toppling

on the inside." Some interesting discussion on the merits of the science took place between Mr. Todd and some of the jury. The former declared that his method accorded with the teachings of the Bible. He declared his intention to continue in the course he had taken in spite of the result of the inquest.

In Germany and France devices for using denatured alcohol for power purposes have already been perfected and placed in actual use, and their adoption in the United States will, no doubt, come quickly as soon as industrial alcohol is on the market. As this fuel can be produced from many vegetable products that have heretofore gone to waste, and that, too, at a considerably lower price than is obtained for gasoline and kerosene to-day, there need never be any fear of lack of fuel, even should the coal measures become exhausted and the supply of natural oil cease. The new fuel, besides being cleaner and less volatile, will, when used in suitably designed motors, develop about as much power per gallon as will gasoline, while for light and heat it is far superior. Its introduction will create a new market for some lines of farm produce, while the farmers will benefit directly by using it for the production of light and power. It will be necessary for the Canadian Government to adopt a similar policy. The advantages of a cheap, power-producing fuel that can be made from many vegetable substances now largely wasted are obvious.

The first re-union of the Residential Staff of the Toronto General Hospital was held in the hospital grounds on Monday afternoon, 20th August, commencing at 4 o'clock, when there were over 100 ex-members and members of the staff from different parts of Canada and the United States in attendance. In 1872, when the hospital was founded, there were only two house surgeons, and now the number on the staff has increased to sixteen. During the 34 years of the hospital's existence there have been about 155 surgeons on the staff, 16 of whom are dead. 56 of the former staff reside in Toronto. The idea of the re-union was suggested last spring when the executive committee and other officers were appointed to make arrangements. The following are those who had charge of preparations in connection with the event:—Executive—Dr. R. B. Nevitt, President; Dr. W. P. Caven, Toronto; Dr. McKelplin, Lindsay; Dr. Jas. Third, Kingston; Dr. A. E. Ardagh, Orillia; Dr. R. Hillary, Aurora; Dr. T. Middlebro, Owen Sound; Dr. J. H. Mullin, Hamilton; Dr. Geo. Acheson, Galt; Dr. D. Armour, London, England; Dr. L. Barker, Baltimore, Md., Vice-presidents. Councillors— Drs. J. F. Ross, H. A. Bruce, P. E. Doolittle, W. B. Hendry, and W. N. Barnhardt, all of Toronto. Secretary-treasurer—Dr. J. N. E. Brown.

OBITUARY.

A. K. M'LEAN, M.D.

Dr. A. K. McLean, of Chicago, died at Battleford, Sask., on Sunday, 12th August, under rather distressing circumstances. He and a cousin, Mr. W. D. McLellan, of Harriston, Ont., left for a trip through the west on July 17th. On arriving at Battleford, he was taken suddenly ill with acute dysentery, and was removed to the hospital at Battleford, but, despite all that medical aid and nursing could do, he succumbed to the disease one day before his wife could reach his bedside. Mr. McLellan and his wife accompanied the remains to Harriston, where they were buried. Deceased graduated in medicine from Toronto University in 1897, and will be remembered by many of the class of that year. He immediately went to Chicago, where he was successful in establishing a very satisfactory practice, making a speciality of the treatment of diseases of the eye, ear, nose and throat. He leaves a widow and two sons, aged three and five years.

D. G. J. CAMPBELL, M.D.

Dr. Campbell died very suddenly at his home in Halifax, N.S. He was married on 10th July, and while spending a short time at Hubbard's Cove, he was seized with pneumonia. He was removed to his home where he died. He took his course in Halifax, and was one of the house surgeons of the Royal Victoria Hospital of that city. He graduated in 1902. He had contributed a number of articles to the medical journals.

A. H. HALLIDAY, M.D.

Dr. Albert H. Halliday died on the 5th of July, at Traverse City, Mich. He was a native of Brooklin, Ont., and graduated in Arts from Toronto University, and in medicine from Victoria Medical College, Cobourg. Dr. Halliday practised at Belwood, Ont., till 1893, when he removed to Traverse City, where, at time of his death, he was president of the local Medical Association. He was in his 47th year. He leaves a widow and three children.

W. A. HUTTON, M.D.

Dr. Hutton lost his life in the disaster at Vancouver harbor. He was formerly one of the house surgeons in Winnipeg General Hospital.

J. W. CHISHOLM, M.D.

Dr. Chisholm was drowned in Glace Bay, C.B. He was swimming, and is supposed to have been seized with cramps.

WILLIAM D. CURRIE, M.D.

Dr. W. D. Currie, of Sydney Mines, died of pneumonia at Brooklands Hospital, Sydney. He was the son of Rev. Dr. Currie, of Pine Hill Cottage, Halifax.

MEDICAL SOCIETIES

THE CANADIAN MEDICAL ASSOCIATION.

The 39th annual meeting of the Canadian Medical Association was held in Toronto on the afternoon of the 20th August. On account of the Association giving up its meeting for the larger gathering, the British Medical Association, the attendance was somewhat small.

Dr. A. McPhedran, the president, occupied the chair, and stated that he had no formal address to give, as the meeting was only a business one.

The minutes of the previous meeting were taken as read.

Dr. George Elliott, the general secretary, submitted his report of the annual meeting held last year in Halifax, as follows:—

The attendance at our annual meeting last year at Halifax was 222. Of this number five were guests. There were added to the membership 117 names; and there were present 22 who did not seek membership. The total attendance may be divided as follows:—Nova Scotia, 131; Ontario, 29; Quebec, 23; New Brunswick, 19; Prince Edward Island, 7; Manitoba, 1; British Columbia, 2; Newfoundland, 2; Scotland, 1, and the United States, 7.

The most important item of business transacted at the meeting was the appointment of a special committee on reorganization.

The scientific side and the social functions were pronounced successes.

The report of the special committee on reorganization was then submitted. After some discussion it was moved by Dr. John Ferguson, and seconded by Mr. I. H. Cameron, that it be printed and sent to the members, and that its consideration be taken up at the next annual meeting. This was agreed to.

Dr. Hugh McCallum, of London, moved, and Dr. Kingsmill seconded the motion, that the president appoint a committee to formulate some scheme for the publishing of an official journal of the Association, if such be possible. This was also carried.

On motion of Dr. John Ferguson and Dr. George Elliott, a nomination committee was appointed.

Prof. J. J. Mackenzie urged that a scientific section be added, including anatomy, physiology and pathology. This section, he said, might be somewhat open, according as there might be a sufficient number of persons willing to take part in it. General assent was given to the suggestion.

Sir Thomas Barlow, of London, who was present, said that he had much pleasure in being present. He thought it was praiseworthy that the Canadian Medical Association had stood aside this year in the interests of the British Medical Association. He said that the usefulness of any association depended upon the work of the individual units, or its members.

Prof. Clifford Allbutt hoped that Canadians would find in their attendance upon the larger association an ample reward for the temporary suspension of their own. He urged attendance upon such associations, as many valuable friendships were made in this way. Much information was gained in coming in contact with scientists, who might have valuable information to impart, though not yet ready for publication.

Dr. G. A. Gibson, of Edinburgh, spoke of the warm reception he had received, both socially and physically, in Canada. He expressed the hope that some arrangement would be effected which would enable graduates of Canadian and British universities to practice any where in the British Empire. Some system of reciprocity in degrees would be a great boon to the medical profession and the Empire.

Dr. A. D. Blackadar, of Montreal, then read the report of the nominating committee.

Montreal was recommended as the place of meeting next year.

Dr. A. McPhedran was nominated for re-election as president; Dr. George Elliott, of Toronto, to be general secretary; Dr. H. B. Small, of Ottawa, to be treasurer. The vice-presidents for next year: Prince Edward Island, Dr. Johnson, Charlottetown; Nova Scotia, Dr. G. C.

Jones, Halifax; New Brunswick, Dr. Emery, St. John; Quebec, Dr. H. S. Birkett, Montreal; Ontario, Dr. J. D. Courtenay, Ottawa; Manitoba, Dr. S. P. Prowse, Winnipeg; Saskatchewan, Dr. W. A. Thomson, Regina; Alberta, D. Mewburn, Lethbridge; British Columbia, Dr. McKechnie, Vancouver.

Local secretaries: Prince Edward Island, Dr. Simpson, New Glasgow; Nova Scotia, Dr. J. R. Curtin, Halifax; New Brunswick, Dr. J. A. Scammell, St. John; Quebec, Dr. Ridley McKenzie, Montreal; Ontario, Dr. H. Parsons, Toronto; Manitoba, Dr. J. R. Davidson, Winnipeg; Saskatchewan, Dr. Low, Regina; Alberta, Dr. Sanson, Calgary, and British Columbia, Dr. W. H. Sutherland, Revelstoke.

Executive committee: Drs. Shepherd, LaChapelle and Blackadar, of Montreal, and with power to add to their number.

The report of the committee was adopted and the meeting adjourned.

THE ONTARIO MEDICAL ASSOCIATION.

The 26th annual meeting of the Ontario Medical Association was held in the evening of 20th August. On account of the meeting of the British Medical Association, the meeting this year was only of a business character.

The minutes were taken as read, and several communications read, which were referred to the president and secretary to deal with as they might deem necessary.

Dr. Campbell Myers then read the following report:—

The Honourable J. P. Whitney, K.C., LL.D., Premier of Ontario:—

SIR,—This committee has the honor to submit to your consideration the establishment in the General Hospitals of this Province, of wards for acute, nervous and mental diseases. The advancement of medicine in other countries is such that if we are to maintain an equal standard in this Province, such a provision becomes an absolute necessity. In Germany this plan has been in operation for more than thirty years, and while in Great Britain and the United States it has been more recently introduced, there has already in these countries, been ample experience to confirm not only the practicability, but also the great benefit to be derived from the treatment of these diseases in general hospitals. Of the advantages which would result may be mentioned the following:—

(1) The prevention of insanity in a large proportion of the patients admitted. As these patients suffering from disease of the brain would be admitted without certificate, and on precisely the same conditions

as all other patients are now received into general hospitals, the prejudice among the relatives to asylum treatment would be obviated, and early treatment would be gladly accepted with correspondingly good results.

(2) Better facilities for clinical instruction would result to the medical student, since he could here be shown the symptoms of these diseases in the round of his daily work, and he would be enabled to study the transition from nervous to mental disease in a manner which is at present impossible, since only those patients who have already crossed the boundary line of insanity are admitted to the asylums.

(3) Better facilities for the training of the nurses in general hospitals, the absence of which at present offering a decided barrier when nursing these patients later in private work.

(4) Better facilities for the study of the pathology of these cases than now exists.

(5) Suicide would often be prevented by affording relief to the incipient mental diseases from which these people so frequently suffer.

(6) The cruelty and injustice of committing the insane poor in jails would be abolished, these wards offering an immediate solution for the difficulty, entirely in keeping with a humane and rational view of disease.

From an economic point of view alone, however, the prevention of insanity merits the careful attention of the State. Since the maintenance of the insane poor must, of necessity, devolve upon the State the cost of even a single individual during the long period which his disease may continue (sometimes more than fifty years), would suffice to build such wards in connection with one general hospital, without mentioning the benefit to the community, which might have resulted from the intellect or the skill of the individual, had insanity been prevented in this simple instance.

This committee would, therefore, respectfully urge:—

(1) That wards for acute nervous and mental diseases be established in all general hospitals of this Province as rapidly as possible; especially, at first, in those hospitals in which clinical instruction is given.

(2) That the Government may allow an additional grant either to existing hospitals or to those to be erected for the construction of these wards.

(3) That an increased allowance per capita be granted for patients treated in these wards.

I have the honor to be, sir,

Your obedient servant,

CAMPBELL MEYERS, M.D.,

Chairman of Committee from Ont. Med. Association.

Dr. Meyers reported that progress had been made, and that the Toronto General Hospital had made provision for the care of a certain number of cases of early insanity.

The thanks of the Association were tendered to Dr. Meyers and those who had been associated with him on the committee. The committee was continued in office.

It was moved by Dr. William Britton, and seconded by Dr. D. C. Meyers, that the rule of the Association regarding the election of officers be suspended, and that a nomination committee be not appointed.

Dr. John Ferguson then moved that the present officers and standing and temporary committees be all re-elected. This was agreed to, and the meeting adjourned to meet in Toronto in 1907.

The officers are, therefore:—President, Dr. G. A. Bingham, Toronto; 1st vice., Dr. Olmsted, Hamilton; 2nd vice, Dr. E. B. Echlin, Ottawa; 3rd vice., Dr. A. Gillespie, Lindsay; 4th vice., Dr. Hadley Williams, London; general secretary, Dr. C. P. Lusk, Toronto; assistant secretary, Dr. S. Johnson, Toronto; treasurer, Dr. F. Fenton, Toronto; chairman of committee on papers and business, Dr. Gibb Wishart, and chairman of committee on arrangements, Dr. H. J. Hamilton.

THE CANADIAN MEDICAL PROTECTIVE ASSOCIATION.

The fifth annual meeting of this Association was held immediately after the meeting of the Canadian Medical Association.

Dr. R. W. Powell, of Ottawa, submitted the annual report. He congratulated the members on the healthy condition of the Association. There is, at the present moment an active membership of 471, and cash on hand to the amount of \$837.38.

There had not been much litigation during the year. Two actions were threatened, but withdrawn, when the defence was put in. This is evidence of the very great value of the Association.

It was unanimously agreed that Dr. Powell continue as the president of the Association.

Dr. Birkett, of Montreal, was elected to the Quebec provincial executive to fill the place of the late Dr. Buller.

Dr. Fenton Argue, of Ottawa, was elected to the position of secretary-treasurer to fill the place of Dr. J. A. Grant, who had resigned on account of his accepting a position in British Columbia.

Dr. King was elected to fill the place of Dr. McLennan, of Nelson, B.C.

All the officers were re-elected for the various provinces. In the cases of Alberta and Saskatchewan it was agreed that the executive select suitable persons to form a provincial executive for those provinces.

THE BRITISH MEDICAL ASSOCIATION.

As the final items of this issue of the CANADA LANCET are being sent to press, the 74th annual meeting of this Association is in full swing. The attendance is large and the interest on all hands well maintained.

The influence of such a meeting on the medical profession of this country will be most beneficial; while, on the other hand, the welcome that is being extended to visitors will be long remembered by those from other countries.

THE AMERICAN CONGRESS OF FRENCH-SPEAKING PHYSICIANS.

The Congress of the Societe Medicale de la langue Francaise de l'Amerique du Nord held at Three Rivers in June, was very successful. The opening address was made by His Honor Sir Louis Jette, while Hon. Lomer Gouin followed with another eloquent discourse. The medical congress was attended by about 225 members from all over Canada. Among those who attended the convention were three French gentlemen representing respectively the French Government, University of Paris, and the Institut Pasteur. This medical association was formed in 1902, holding their second meeting in 1904 and the congress in Three Rivers is the third. It is expected that the next meeting will take place in 1908.

CORRESPONDENCE.

A REPLY FROM DR. CRICHTON.

To the Editor of the *Globe*:—As you printed in a recent issue a letter from the President of the Ontario Medical Council referring to their cancellation of my diploma, I presume you will allow me the privilege of reply. Dr. Moorhouse says that "if my offence were only a breach of professional etiquette the council would have taken no action." Every one of their witnesses, however, stated that his reason for saying I was guilty of "disgraceful conduct in a professional respect" was because I had violated the code of medical ethics (or etiquette). Dr.

Hillier, one of the members of the Medical Council who voted for erasing my name, has since then stated in the *Bowmanville News* (July 26th) that part, at any rate, of his reason for voting against me was because "the medical profession has a code of ethics that the law requires every member to maintain."

According to Dr. Moorhouse my circular claims that "I can cure all cases of grippe in an hour or two," and their counsel persisted in this kind of "paraphrasing" of the circular all through both trials. You will see, however, that the circular reads: "It will generally cure grippe in a few hours (often in less than two hours) if it is taken at the start," and I offered to go to any hospital and prove that statement and all the others contained in the circular. The doctor says I "was disciplined for conduct which, in the opinion of the council, involved fraud." If they wished to convict me of fraud they should have accused me of it, and given me a chance to defend myself, as they did in the case of all the other doctors that they ever tried for advertising, but there was nothing in either the charge or the statement of particulars at either trial stating or implying that there was anything untrue in the circular. At the first trial they refused to give any statement of particulars, and at the second trial all the particulars they would give was that "the mere fact of a doctor advertising a patent medicine is sufficient to bring him under the Act." They refused me a copy of the evidence taken at the first trial, but I think all of the five witnesses at that trial (and also one of those at the second trial) swore that any advertising by a doctor except the ordinary professional card in the newspaper would be "disgraceful in a professional respect." Dr. Colin Campbell, of London, one of the Discipline Committee who tried me, said at the meeting of the Medical Council in July, 1894:—"The Council does not approve of advertising in any shape."

Their own lawyer admitted at the close of the first trial that he "had not even tried to prove that I printed the circular simply to make money." I did not admit the correctness of their "official analysis" (made by the brother of the registrar of the Medical Council); but, even assuming that it is correct, all of their own witnesses practically admitted that my circular "may perhaps be true," as they had never tried any similar preparation for the diseases that I named. Two of the three witnesses at the second trial admitted that I probably believed the circular to be true, and that my conduct would not be disgraceful "in the ordinary sense of the word."

The last words of Dr. Moorhouse's letter are:—"If he has justice on his side there is no doubt the council will have to reinstate him."

As the Medical Act stands now, however, they can still go on, even after that, trying me as often as they choose without giving any decision, and leaving me each time to pay my own costs. Under such circumstances one is afraid to go to much expense in defending himself, and I think the Act should be amended in that respect, and also so as to render the council liable to an action for libel when they print defamatory statements about any doctor that they cannot bring reasonable evidence to support.

(DR.) A. CRICHTON, B.A.

Castleton, August 10.

THE MEDICAL COUNCIL.

To the Editor of the *Globe*:—Without in any way defending Dr. Crichton's advertising exploit, this might be an opportune time to review briefly the attitude of the Medical Council toward the medical profession, not only at the present time, but also in the years gone by. It is curious, too, that all the members of the Council in private life are excellent gentlemen and an ornament to society, but immediately organized into a council, they drift into evil ways. In the trial of Dr. Crichton, for instance, the Council has made some clumsy movements. They tried the doctor at Cobourg, where they acted as judge, jury and prosecutor. One party tells us that the doctor was tried for "infamous and disgraceful conduct in a professional sense," but the President of the Council on the seventh instant, in a letter to the *Globe*, said they tried the doctor for fraud. Now, fraud is defined to be deceit, treachery, artifice, and this implies design on the part of the actor, and it will keep all the Council busy enough to prove whether the doctor is acting from design or delusion, or from full confidence in his cures. Then, the President, with full steam on, makes a header for the Medical Act. He informs us that the Council never had the power to discipline a doctor for breach of medical etiquette, but section 33 of the Medical Act states distinctly that the Council has power to do so.

Again, there is a general impression among men of judicial training that the Council is not competent to try a fellow-practitioner on any charge, because that traditional rivalry among all men of the same craft has touched the medical profession in an acute form. A juror must be unprejudiced and impartial, and the lack of these qualities in the Council would, in a court of justice, cause them to be requested to stand aside. But the Council in Dr. Crichton's case, without waiting to prove intentional fraud, and without waiting to see if utter failure would snuff out the delusion, put on the black cap. In taking

a retrospect of the past it is found that in 1891 the Council in a stealthy manner obtained an Act of Parliament which gave them ample power to disqualify any medical man in Ontario if he refused or neglected to pay his annual fee. That law is still in vogue, and every year we get a certificate, a sort of dog collar, giving us permission to practise another year. Most of the profession took offence at this law and many men joined a medical defence association, who defended the bridge against the encroachments of the Council "in the brave days of old."

But, passing over other objectionable movements in the governing body towards the profession, we will only mention one which is still in full force. It looks as if the Council has laid a deep scheme for a dictatorship in the near future, and the stratagem is laid with a cunning and secrecy which might move the envy of Nicholas himself. The plot is this: Just before a student goes up for his final examination, and while he is trembling in his boots for the result, he is ordered to go before a J.P. and swear allegiance to the laws of the Medical Council for all time to come. The form of this oath has been kept from the public with Clan-na-Gael secrecy. They dare not publish it, and in a few more years there will be three or four thousand more sworn to obey the mandates of the Council, and of these professional slaves it may be said: "Thou art chained to the wheel of the foe by links which a world cannot sever. With thy tyrant through storm and through cloud thou shall go; and thy sentence is bondage forever."

From this brief review, is it not time that both the Medical Act and the Medical Council were severely revised?

Peterboro', August 15.

J. BINGHAM, M.D.

BOOK REVIEWS.

A NON-SURGICAL TREATISE ON DISEASES OF THE PROSTATE GLAND AND ADNEXA.

By George Whitfield Overall, A.B., M.D., Chicago. Rowe Publishing Co., 74 E. Madison street, Chicago. 1906.

This small book of 230 pages is carefully prepared, well printed and bound, and fully illustrated, several being in colors. The subjects discussed: The Non-Surgical Treatment of Diseases of the Prostate Gland and Adnexa, Acute Prostatitis, Subacute or Chronic Prostatitis, Chronic Congested Enlargement of the Prostate, Seminal Vesicles, Neuroses of the Prostate, Electro-Physics, and High Frequency Currents. The book is based largely on cases in practice which are well related, and effectively bring out the author's views on the treatment of the various forms of prostatic disease. Several very useful new instru-

ments are pictured and described. On the whole, there is a good deal to learn from a perusal of this little treatise on the diseases of the prostate gland. To those who wish reliable advice on the non-surgical management of these conditions we recommend this book.

INTERNATIONAL CLINICS.

A quarterly of Illustrated Clinical Lectures and especially prepared Original Articles on Treatment, Medicine, Surgery, Neurology, Pediatrics, Obstetrics, Gynæcology Orthopedics, Pathology, Dermatology, Ophthalmology, Otology, Rhinology, Laryngology, Hygiene, and other topics of interest to students and practitioners, by leading members of the medical profession throughout the world. Edited by A. O. J. Kelly, A.M., M.D., Philadelphia. Vol. II., Sixteenth Series, 1906. Philadelphia and London: J. B. Lippincott Company. 1906. Price, \$2.25.

This volume, like all the others in this series, is an excellent one. A wide range of subjects are covered by the contributors. There are four articles on treatment, eight on medicine, one on pediatrics, one on neurology, five on surgery, five on obstetrics and gynæcology, and one on laryngology. It would be quite impossible to refer to all the topics discussed. The article by Carrière on "The Treatment of Migraine by *Connsbis Indica*," is worthy of study. Another article of much interest is the one by Dr. Dorland on "The Repair of the Female Perineum." This article is very well illustrated and brings out a number of very fine points. We refer also with much pleasure to the article on "Mammary Tumors," by Dr. Rodman; and to the one on "Fractures," by Dr. George G. Ross. The other articles are, however, of much merit. This volume of "International Clinics" is one of the very best of the series.

THE PROPHYLAXIS AND TREATMENT OF INTERNAL DISEASES.

Designed for the use of Practitioners and of Advanced Students of Medicine, by F. Forchheimer, M.D., Professor of Theory and Practice of Medicine and Clinical Medicine, Medical College of Ohio, Department of Medicine of the University of Cincinnati; Physician to the Good Samaritan Hospital; Member of the Association of American Physicians, the American Pediatric Society, etc. New York and London: D. Appleton and Company. Cloth, price \$5.00.

This book may be called a work on the practice of medicine from the two standpoints: prophylaxis and treatment. The work consists of 650 octavo pages, and is got up in the well-known, handsome style of the publishers. The author covers the entire range of internal medicine under the usual groups of diseases, as the specific infections, those caused by animal parasites, intoxications, constitutional diseases, those of the digestive system, of the respiratory organs, of the circulatory

organs, the ductless glands, the kidneys, the bladder, the nervous system, etc., etc. The author displays much tact in the space he gives to the several topics, the important ones receiving full consideration. The suggestions on the prevention of diseases are very useful and cover the ground according to the most recent views. The book is full of prescriptions and dosages for the different conditions. Throughout the work both the metric and the ordinary method of weights and measures are given. The author is very careful of his statements on the treatment of diseases by the various sera, and is only prepared to award praise when it can honestly be given. It may be said with much confidence that this is a very readable and useful book, and one that should become a general favorite.

PROGRESSIVE MEDICINE.

A quarterly digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by Hobart A. Hare, M.D., Professor of Therapeutics and Materia in the Jefferson Medical College of Philadelphia, etc., etc., assisted by H. R. M. Landis, M.D., Visiting Physician to the Tuberculosis Department of the Philadelphia Hospital, etc., etc. Vol. II., June, 1906. Lea Brothers & Co., Philadelphia and New York, 1906. Price, paper, \$6.00 per year; cloth, \$9.00.

The quarterly volume compares well with all the others in the same series. Progressive medicine is known to every medical practitioner on this continent and to a good many in other countries. Its merits have made it a welcome addition to many libraries. There are five main topics discussed at length in this volume. W. B. Coley, M.D., of New York, takes up "Hernia." His treatment of the subject is most exhaustive and thorough. The article is fully illustrated. "The Surgery of the Abdomen" is reviewed by Dr. G. M. Foote, of New York. He gives about 100 pages to the subject. His examination of every phase of abdominal surgery is very complete. This is followed by Dr. John G. Clark's article on "Gynæcology." Every one who knows of Dr. Clark's splendid work in Philadelphia on his favorite field will expect much in this article, and will not be disappointed. Dr. Alfred Stengel, of the University of Pennsylvania, discusses the diseases of the blood. His views are up-to-date in every respect. He is well known as an advanced worker on this group of diseases, and he gives in this article the very best of his wide experience and extensive reading. The article on "Ophthalmology," by Dr. Edward Jackson, closes the volume. The recent advances and discoveries in Ophthalmology are gathered in and reduced to convenient bulk for the general reader. This article makes a fitting ending to the volume. The illustrations throughout the book are all that could be desired. The

paper and type are good. This volume of "Progressive Medicine" is sure to make many friends and be extensively read.

YELLOW FEVER PROPHYLAXIS IN NEW ORLEANS, 1905.

By Rubert Boyce, M.D., F.R.S., April, 1906. Price, 5 shillings nett. Published for the Committee of the Liverpool School of Tropical Medicine, by Williams & Norgate, 14 Henrietta street, Covent Garden, London.

This is the nineteenth booklet issued by the Liverpool School of Tropical Medicine. These booklets have covered a wide range of subjects dealing with tropical diseases. The present one is a very attractive exposition of yellow fever and its prevention. It deals with the various yellow fever epidemics, the *Stegomyia fasciata* and its life habits, and the best methods of controlling the disease. It is very clearly brought out that the *Stegomyia* is a city mosquito and breeds in stagnant water, gutters, open drains and cisterns—of which there are legion in New Orleans. The prevention consists in removing the breeding places of the mosquito, protecting yellow fever patients from the mosquito, and destroying the mosquito by steam spraying of buildings. Due praise is given to Drs. Reed, Carroll, Agramonte and Lazear. The work done by the committee in publishing this booklet under the authorship of such an able investigator as Professor Rubert Boyce deserves great praise. One would think that it should not be a difficult task to control yellow fever in the future. The booklet is well illustrated.

A STUDY OF THE CAUSE OF SUDDEN DEATH FOLLOWING THE INJECTION OF HORSE SERUM.

By M. J. Rosenau and John F. Anderson, Surgeons in the United States Army, Washington Government Printing Office. Bulletin No. 29.

This is a very careful study of the action of horse serum on animals and man. This is a foundation stone to a proper knowledge of diphtheria antitoxine and its action, and the occasional toxic effects experienced in its employment. The authors go to show that diphtheria antitoxine is not poisonous, but that in the horse there is a toxic element to some animals and sometimes to man. In this way the untoward effects are to be explained.

REPORT ON NEGLECTED AND DEPENDENT CHILDREN OF ONTARIO, 1905.

This pamphlet gives much information on the good work that is being done by the Government in aid of these children. Many are raised into the level of health and usefulness who would otherwise degenerate into criminals. It is printed by order of the Legislative Assembly of Ontario.

MISCELLANEOUS.

GENIUS AND THE WRITING AGE.

Macaulay was forty-seven before he began his brilliant "History of England"; Gibbon was almost forty when he began his monumental work, which occupied him till he was turned fifty; Josephus was fifty-six when he published "The Wars of the Jews"; Washington Irving was seventy-two when he wrote his "Life of Washington"; John Knox was seventy-nine before he published his "History of the Reformation in Scotland."

Homer is said to have composed the Iliad when he was turned sixty; Virgil wrote his Bucolics between his forty-fourth and forty-eighth years; Coleridge published "Christabel" when he was forty-four; Wordsworth wrote the "Excursion" at forty-four; Browning wrote "The Ring and the Book" at fifty-seven; Dryden was sixty-eight when he began the translation of the Æneid; Cowper was fifty-three when "The Task" was published; Chaucer wrote the "Canterbury Tales" when he was turned fifty; Goethe, who was forty-six when "Wilhelm Meister" appeared, was ten years older when he published "Faust"; Pope was forty-five when he wrote his "Essay on Man"; Butler was turned sixty when he began "Hudibras"; Dante was fifty-one when he finished "The Divina Commedia."

Bacon was forty-one when he wrote the "Novum Organum"; Isaac Newton was forty-five when he finished his "Natural Philosophy"; John Locke did not complete his "Essay on the Human Understanding" till he was fifty-eight; Cicero was turned forty when he wrote "De Officiis"; Seneca was turned fifty when he wrote "De Beneficiis"; Kant was fifty-seven when the "Critique of Pure Reason" appeared; Swedeborg was turned sixty before the "Arcana Selectia" appeared; Burton published his "Anatomy of Melancholy" when he was forty-five; Rousseau wrote "Emile" at fifty; Humboldt was eighty-two when he finished his great work, the "Cosmos"; Machiavelli completed "The Prince" at forty-five; Sir Thomas More was seventy-three when he finished his "Utopia."

SAUNDERS' NEW BOOKS.

Messrs. W. B. Saunders Company announce for publication in the early fall the following excellent and practical works:—

Keen's Surgery: Its Principles and Practice. (Volume I.)

Sobotta and McMurrich's Human Anatomy. (Volume III.)

Webster's Text-book of Gynecology.

Hill's Histology and Organography.
 McConnell's Pathology.
 Morrow's Immediate Care of the Injured.
 Stevenson's Photoscopy (Retinoscopy and Skiascopy).
 Preiswerk and Warren's Atlas of Dentistry.
 Goepf's State Board Questions and Answers.
 Lusk's Elements of Nutrition.

The most notable announcement is the new work on Surgery, edited by Dr. W. W. Keen, complete in five octavo volumes, and containing over 1,500 original illustrations. The entire work is written by the leaders of modern surgery—men whose names are inseparably associated with the subjects upon which they have written. Without question, Keen's Surgery will represent the best surgical practice of to-day.

ANOTHER PHASE OF THE PROPRIETARY QUESTION.

Clinical Medicine.

There is at least one phase of the proprietary question which we believe has not been seriously considered, and that is, that while every effort is being made by some of our earnest and really conscientious, though misguided, workers to destroy the faith of the profession in practically all remedies of this class, and to bring them into ridicule, practically nothing has been done to provide satisfactory substitutes for them, except to make the suggestion—an excellent one, too—that physicians should familiarize themselves with the official and semi-official preparations contained in the Pharmacopeia and National Formulary.

In making this suggestion they forget to add that a very large share of these "official" preparations are old proprietaries under other names. In other words, the great "reform" consists in the denunciation of such remedies as antiphlogistine, arsenauro, bromidia, lactopeptine, Fellows' hypophosphites, Antikamnia and Hayden's viburnum compound, while the use of practically the same things under other names is suggested or advised. In some instances the very formulas are used that proprietors have published or that analytical chemistry have elucidated.

There is a reason for the popularity of the proprietaries. Whether many of these were "wonderful discoveries" or not, they have enabled the average physician to secure results more satisfactory to himself and his patients than he was able to secure without them. Very, very few medical men are able to extemporize prescriptions which at the same time are effective, palatable and not uselessly polypharmacial. All doc-

tors ought to be able to do this, but they are not—and whose fault is it? And even if they were, who but the sheerest crank would claim that he could properly write for, or the average druggist dispense, substitutes as elegant, as cheap and withal so satisfactory as many of the best type of the proprietaries? It is best to look all these facts squarely in the face and be sensible in our conclusions.

A PLEA FOR THE TABLET.

“In the first place, compared with pills, tablets have no insoluble coating nor, when properly made, have they any insoluble excipient added to their composition. For example, antikamnia tablets are made by simple compression, and, therefore, if the secretions of the human system affect the medicine administered, it is bound to be absorbed in the quickest possible time, which is always an advantage. Comparing tablets with capsules, greater accuracy in dosage is assured, as experiments have proven. For example, forty tablets of Bisulphate of Quinine, made on a machine, adjusted to five grains each, weighed $199\frac{3}{4}$ grains on a torsion balance. The most careful druggist knows it would be impossible to do this in filling capsules. The objections some have to tablets is readily overcome by crushing them before administration, and we are glad to know that the Antikamnia people take the precaution to state that when very prompt effect is desired the tablets should be crushed or chewed. Antikamnia itself is not unpleasant to the taste, and the crushed tablet can be placed on the tongue and washed down with a swallow of water. It so frequently happens that certain unfavorable influences in the stomach may prevent the prompt solution of tablets, that this suggestion is well worth heeding. This, however, does not apply to Antikamnia Tablets, for they disintegrate at once, as soon as they come in contact with moisture. Drop a tablet in a glass of water and be convinced of this. Proprietors of other tablets would have better success had they given more thought to this question of prompt solubility. Antikamnia are great favorites of ours, not because of their convenience alone, but because of their prompt and uniform therapeutic effect.”—*The Journal of Practical Medicine.*

BLOOD IMPOVERISHMENT.

In meeting that condition of the system embraced in the above headlines, is it not true that our first thought, and that to which our instinct naturally leads us, is iron; but, viewed from the standpoint of now accepted scientific facts, is this not looking at but one phase of the

question? That there is a deficiency of iron in the blood in most forms of anemia is, of course, indisputable; and to endeavour to supply this lack by the administration of iron seems but a common sense procedure. This practice would be sufficient if anemia were, in reality, nothing more than a condition of iron deficiency; but modern physicians know that the real underlying causative factor is a disturbance of the complicated processes of nutrition and metabolism, and that iron poverty is but one manifestation of this disorder. Sufficient proof of this fact has been presented to every physician when he has observed how anemic conditions persist in spite of the long continued administration of iron. Here, then, iron must be supplemented by such remedies as have the ability to awaken the depressed nutritive and metabolic processes.

To invigorate, to rekindle nervous force, to revitalize all functions, and thereby bring about a condition of systematic vigor, of which blood enrichment is necessarily a feature, the addition of Manganese with Iron is desirable. In Pepto-Mangan, Iron and Manganese was first brought to the attention of the profession by Dr. Gude, chemist, and this preparation is found to be one of the best therapeutic resources of the present-day physician, and when combined with such other remedies as meet the indication, such as we have spoken of, forms at once a therapeutic arsenal whose fortress is impregnable. Editorial in *Medical Summary*.

THE VALUE OF ECTHOL.

Ecthol is an agent that is gaining great popularity by reason of its wide range of usefulness. It contains the active principle of echinacea, which is an old remedy. A recent number of the Chicago Year Book states that the prompt results gained from it have caused all writers to express themselves with such apparent extravagance as to really retard the introduction of this agent to the profession at large. In summing up, the statement is made that "it will yet establish for itself, by its inherent valuable therapeutic properties, with the entire profession a fixed and permanent place." Ecthol is anti-purulent and a corrector of all dyscrasia of the fluids. It is used locally and internally. The dose is a teaspoonful four to eight times daily. It is useful in septicemia and all cases of blood poisoning from whatsoever cause. It is excellent for erysipelas, carbuncles, abscesses, boils, sores, ulcers, gangrene, and as a gargle in diphtheria and putrid sore throat. W. T. Marrs, M.D., in the *Medical Summary*.