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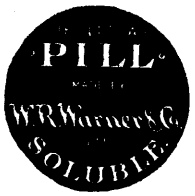

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VOL. XXX.] TORONTO, APRIL, 1898. [No. 8.

ORIGINAL ARTICLES AND COMMUNICATIONS.

THE PRESENT STATUS OF THE RADICAL CURE OF HERNIA.

MR. PRESIDENT AND GENTLEMEN,—In appointing this subject for discussion, no doubt your committee had more particularly in view the inguinal form of hernia, which is the variety constantly met with in practice. I shall, therefore, largely confine my remarks to this class of cases and should time permit will give a brief resumé of the data and procedure in the radical cure of the more uncommon varieties, viz.: Femoral and Umbilical Hernia. In discussing the present status of the radical cure of hernia three questions naturally present themselves:

I. What degree of success may be anticipated as the result of a modern operation for the radical cure, if properly carried out?

II. Under what circumstances should we advise the operation?

III. What method should we adopt?

The answer to the first question must essentially be somewhat statistical. W. T. Bull has collected 5,000 operated upon, with 58 deaths or 1.16 per cent. He estimated that from 60 to 90 per cent of all the cases were permanently cured. Bull and Coley, of New York, have operated upon 300 cases by Bassini's method, with three deaths and seven relapses, the relapses being very slight. Bassini reported 262 cases with seven recurrences and no deaths; Macewen mentions 98 cases with one recurrence and no deaths. Quite recently, Marcy, of Boston, publishes the fact that in a series of nearly 400 cases operated upon he has not seen a single case in which the patient's life was endangered when the integrity of the intestine was not involved. His experience also establishes the fact that over 90 per cent. of the cases are permanently cured by the operation. Without multiplying statistics it may be positively stated that the percentage of deaths when the operation is carefully carried out is less than one per cent.

The percentage of recurrences will depend largely upon the operator, but from all the statistics at present at our disposal, I should be inclined to place 20 per cent. as the extreme, and at the same time I beg to remind you that the figures are improving every year as the techinque becomes more perfectly understood. Surely, when we find it positively stated that Bassini, Marcy, Macewen and Coley in the aggregate did 1,041 radical cases with but one death, we should the less hesitate to recommend the operation.

In reply to the second question, I beg to note that it appears to have

been fully proven that children are more favorable subjects for the operation than adults. Certainly, if the weakness in the abdominal wall of the child be due to imperfect development of the structures, a cure may be obtained by the judicious pressure and support of a truss. But I think all will agree with me as to the difficulty of retaining a hernia in a restless, perhaps suffering child. The pressure irritation of the truss itself is also a factor not to be despised.

Age limit is indefinite. Marcy has operated on children at 2 months and on men at 80. Infancy does not appear to militate against the operation. I have myself operated upon two cases of double inguinal hernia in children, one at 6 months, the other at 3 years. Both resulted in permanent cure.

Only last week, at the request of the attending physician, Dr. McPherson of this city, I operated on an infant at 2½ mos. for a very large congenital inguinal hernia, which they had utterly failed to retain by mechanical means. As to the opposite extreme of life to be selected for the limit, I should say that after the active period is passed it is a mere question of expediency which the patient must decide.

Dr. Garmo, in analyzing 1,000 cases in private practice treated by truss, showed that about one-fourth were cured, i.e., remained so for six months without support. Mr. Spanton in his address before the International Medical Congress recorded the fact that out of a total of 96,866 persons relieved by trusses only 4.53 per cent. had been cured. Such facts might be multiplied, but to reduce our answer to question II. to categorical form I should say that the operation is indicated.

1. In children after a brief but careful trial of mechanical treatment has failed from any cause.
2. In adults with irreducible, inflamed, or strangulated hernia.
3. In adults who wish to enter the Civil Service.
4. In adults when the truss is painful or incompetent.
5. In adults when the truss interferes with the duties of life.
6. In all cases of femoral hernia (of this I shall speak later).
7. In all cases of umbilical hernia where a truss has failed to cure.
8. In cases complicated by a hydrocele or an abnormal position of the testicle.
9. In that large class of cases mentioned by Park where, owing to incompetency, ignorance, poverty or occupation, there is a lack of requisite time and care so necessary for the conduct of mechanical treatment.

Now as to the third question, with which the brief paper began, viz.: The method of operating. The plans by which the older surgeons endeavored to obtain closure of the ring and canal were as follows:

1. Irritation by injection near the pillars.
2. Irritation by pressure in the same location.
3. Subcutaneous suturing.

Since the advent of true aseptic surgery these methods are abandoned for obvious reasons and the modern open operation substituted. Among what may be called modern operators all are agreed upon certain points, viz.:

1. Strict asepsis is absolutely necessary.

2. If compatible with safety the cord should be reduced in size so that the resulting canal may be as small as possible.

The questions in dispute are briefly:

1. The retention or removal of the sac.
2. The transplanting of the cord or its retention in its original canal.
3. The ideal suture material.
4. The method of suturing.

Macewen, Packard, Roche, and, later, Ferguson, of Chicago, retain the sac, and use it by various means as a plug to close the internal ring; while Marcy, Barker, Bassini and Halsted, following Czerney and Banks in their teachings, remove the sac entirely.

The remaining differencee will be incidentally noted in the following brief outline of the principal methods at present in vogue, and I shall then endeavor to show why certain methods are to be preferred, prefacing the description with the statement that any of the methods mentioned will produce a large percentage of excellent results when carefully and intelligently carried out.

I. BANKS' OPERATION.—The sac is exposed, isolated, and opened, and after reduction of its contents a ligature is applied to its neck high up, and after excision of the sac below the ligature, the internal ring is closed by silver wire sutures and the operation concluded by closing the skin wound.

II. BARKER'S OPERATION.—The sac is exposed by an incision similar to the last, viz: in the direction of the cord, and beginning about the external abdominal ring. The neck of the sac alone is isolated well up to the internal ring, and tied high up, leaving the two ends of the silk ligature quite long. The sac is now cut across half an inch below the point of ligature, and the lower part left in situ, in order to disturb as little as may be the constituents of the cord. With a Liston's needle, guided by the finger in the canal, the long ends of the ligature are now passed successively one through each pillar of the internal ring and then tied firmly, thus including the stump of the sac and the two pillars in a single mass. If necessary, the lower part of the ring is then occluded by one or more additional sutures. Finally the skin wound is closed by the ordinary running suture.

This operation, slightly modified, is largely used in this city in the treatment of hernia in children and infants. The modification consists in the separation of the sac from the cord below the ligature and its removal, except in cases of congenital hernia, when the lower portion of the sac is left in situ to form a tunica for the testicle.

III. MACEWEN'S OPERATION (1886).—The sac is dissected out through a similar opening, and separated from its connections, is puckered up by means of a suture, and is so drawn upward as to form a pad upon the abdominal aspect of the hernial opening. The ring and canal are then closed by silk sutures, and finally the skin wound closed. This has undoubtedly been an efficient method in many old-standing cases where from prolonged dragging the internal ring has become unusually enlarged and patent. Yet, in recent cases, experience has shown that the retained sac is liable to sloughing, and acting as a foreign body may thus entirely

defeat the object aimed at, viz: complete and firm closure of the ring and canal. Besides, to the average practitioner it is a somewhat more difficult operation than the other described.

In none of these methods described, you will observe, is the canal laid open to the internal ring, and, therefore, the greatest weakness in the abdominal wall, and the one factor which most predisposes to hernia, is never fully recognized, viz: the relaxed transversates fascia. The tension of the fascia must be restored before one can feel satisfied with any operation. It seems to me that another element in the success of the operation has not been fully realized in the methods mentioned, viz: the complete removal of all abnormal or unnecessary material from the canal before endeavoring to secure the restoration of the integrity of the abdominal wall.

IV.—McBURNEY'S OPERATION.—This was a decided advance, in that he opened the canal to the internal ring and removed all foreign substances from the canal. The mistake consisted in allowing the wound to heal by granulation.

The closure of the canal by a large cicatricial mass was not efficient, as experience proved that in time the plug was absorbed, and recurrences were the rule. Now the object is to obtain closure with as little cicatricial tissue as possible.

V.—BASSINI'S AND HALSTED'S OPERATIONS.—In 1888 and 1889 the authors of these methods published descriptions of these operations.

Before he first published his method Bassini had used it in operating upon 262 cases, with one death and seven relapses. Halsted had only some half-dozen cases to report.

For a detailed description of these methods I refer you to Dennis' System of Surgery, Vol. IV., pp. 184-7.

In both the incision is carried from about the centre of the external ring to a point external to and beyond the position of the internal ring.

Halsted's is, however, the much more extensive operation, as his incision through all the structures down to the peritoneum is carried through and beyond the internal ring for a distance of 2 cm. external to and above it; so that his operation is really a laparotomy, and to some extent must weaken the abdominal wall. This weakness he claims to be more than counterbalanced by the complete obliteration of the old internal ring which is in the track of his incision.

On the other hand, the incision which Bassini carries above and external to the internal ring is only through the external oblique muscle. Bassini allows the cord to emerge through the outer part of the internal ring; Halsted obliterates the internal ring entirely, bringing the cord out through his incision in the abdominal wall at a point above and external to the internal ring.

It will be seen that in both methods the canal is opened up; in both the cord is transplanted and the old canal closed behind it. Bassini places the cord between the internal and external oblique muscles. Halsted brings it down subcutaneously, superficial to the external oblique. Halsted suggested the routine practice of suturing the stump of the sac instead of ligating it, and of invariably reducing the size of the cord where

possible, by removing any superfluous veins contained therein. To him also is due the introduction of the mattrass suture in closing the canal. While Bassini uses silk for his buried sutures, many now prefer kangaroo tendon, first suggested by Marcy, of Boston.

These are the two methods now adopted most frequently in operation upon adults, and properly so as most essentially scientific, and as having proven by experience most successful in obviating recurrences. The principal danger to be guarded against in carrying out the method is strangulation of the cord, which may be easily avoided by care and judgment in the introduction of the first or highest sutures.

Another apparent objection to Halsted's method which time may disprove is, that he would appear to have introduced a tendency to the formation of a direct hernia, bringing the cord out as he does directly through the abdominal wall.

As Dr. Garmo has pointed out, one secret of their success is, that the canal is cleared of all foreign substances, so that repair begins at the internal ring and the structures are restored to as nearly a normal condition as possible.

The difficulty that I have encountered has been rather due to the irritation produced by the buried silk sutures, leading occasionally to suppuration, which prolonged, if it did not otherwise interfere with, convalescence.

To obviate this difficulty I have several times used catgut in children, and kangaroo tendon in adults, the former being too rapidly absorbable to be available in adults.

It seems that tendon, if properly prepared, is the best buried suture material we have at present, though not the ideal one.

FEMORAL HERNIA.—This is much more difficult to retain by truss, is much more liable to strangulation, owing to the nature of the canal, and is, altogether, a more dangerous form of rupture. For these reasons most surgeons are inclined to agree with Championniere, that all cases of femoral hernia in the female should be operated upon, the general conditions being favorable. Statistics also show that cure in this variety is more certain and lasting than even in the inguinal form.

The best operation for this purpose is, perhaps, that recommended by Bassini. It may be summarized as follows: An incision just below and parallel to Poupart's ligament, with its centre over the tumor. After the sac has been exposed, isolated, and opened, and its contents reduced, as in inguinal hernia, it should be ligated high up and removed.

The canal is closed by uniting the falciform edge to the pectineal fascia. Then the femoral ring is closed by sutures, uniting Poupart's ligament with the pectineal fascia, and, finally, the skin incision sutured.

Bassini reports fifty-four cases so operated upon, with no deaths and no recurrences.

UMBILICAL HERNIA.—In children this is frequently cured by a truss. In adults it is very difficult to so retain the rupture, and operation gives good results.

An elliptical incision is made over the tumor including much of its

covering and opening the sheaths of the recti. After reducing the contents and removing sufficient of the sac, approximate the cut edges of peritoneum, suture the bellies of the recti together and close the skin wound.

You will observe I have not mentioned ventral hernia. Each case must be treated upon its merits. Nor have I had time to discuss the obvious variation in method should our hernia prove to be congenital. This fact is readily determined as soon as the sack is first opened and explored by the finger. Should this state of things be discovered, the lower part of the sac should invariably be retained for the purpose of forming a tunica vaginitis for the testicle.

While fully realizing that circumstances may occur during an operation to induce the spectator to modify his mode of procedure, we may sum up the teachings of modern surgery in regard to the radical cure of hernia as follows:

1. It is not only a justifiable operation, but its results are among the most brilliant in modern surgery.
2. Strict asepsis is absolutely indispensable.
3. The canal should be fully opened up, at least in all adult cases, as in no other way can the tension of the transversatis fascia be satisfactorily restored.
4. In children and infants, Barker's method, without fully opening the canal, is a competent operation.
5. All unnecessary contents of the canal should be removed, such as the sac, enlarged veins, fatty tissue, and adherent omentum.
6. In certain cases with very large internal ring, the sac may be advantageously utilized, as in Macewen's operation.
7. Tendon is the best available material for buried suture.
8. The cord should be transplanted and the old canal carefully closed.
9. The patient should be kept in bed for three weeks after the operation.
10. A neatly fitting bandage (not a truss) should be worn for a month or two after the patient is allowed to go about.

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*A CASE OF MALIGNANT ENDOCARDITIS DUE TO PNEUMOCOCCUS INFECTION THROUGH THE APPENDIX VERMIFORMIS, WITH REMARKS ON INFECTIONS BY THIS ORGANISM.

BY H. B. ANDERSON, M.D., C.M.,

Professor of Pathology Trinity Med. Coll., Pathologist to Toronto General Hospital, Physician to St. Michael's Hospital, etc.

J. H., aged 38, captain on lake steamer. Patient was a strong, well-developed man, of medium height and weight; used tobacco and alcohol in moderation. For six months before his death he had been

* Read before the Ontario Medical Association, June, 1892.

under treatment for syphilis, the signs of which, except slight pigmentation over the tibiae, had quite disappeared. He had never suffered from rheumatism or other severe illness except syphilis, as mentioned.

Family history showed a tendency to heart trouble. His father had suffered from rheumatism, and died suddenly, presumably from heart disease. A brother also died very suddenly from the same cause. Two sisters—aged 9 and 18—have well-marked mitral murmurs. Previous to his fatal illness patient had been in Hamilton, and was in his usual good health until the night of March 18th, when, after indulging in a heavy supper of flap-jacks, etc., he was taken suddenly ill with a severe chill, intense colicky abdominal pain, vomiting and diarrhœa.

He was relieved by the application of poultices, and was able to return to Toronto next day. Though still feeling miserable, having nausea, loss of appetite and general malaise, he continued to go about until March 22nd, when he consulted Dr. Bingham, to whom I am indebted for notes on the case, and by whose kind permission I report it.

At this time his temperature was 101, pulse 100. He had no abdominal tenderness. Tongue was furred, complained of feeling chilly, had nausea and loss of appetite. He was advised to go to bed, keep quiet, and if he did not improve to send for the doctor. Dr. Bingham heard no more of him until March 26th, when he was sent for. During the interval all his symptoms had become aggravated. His morning temperature was 102, pulse 110; evening temperature 103, pulse 120. Auscultation revealed the presence of an aortic systolic murmur. The patient had severe chills, followed by sweating; tongue was dry and brown, and the nausea and vomiting persisted. As the condition was strongly suggestive of a general bacterial infection, I was asked by Dr. Bingham to make cultures from the blood, with a view to ascertain if a septicæmia existed, and, if so, the organism that was producing it.

This was done on March 28th. The full of a sterilized hypodermic syringe of blood was drawn from the median basilic vein, and blood serum and bouillon tubes inoculated therewith. These tubes kept at incubation temperature remained sterile. The blood was also examined for the plasmodim malariae and the serum reaction for typhoid fever applied, both, however, with negative results. No evident leucoctosis was present.

The chills and sweats continued; the temperature became higher, rising to 104⅘; pulse and respiration became more rapid; he sank rapidly, became delirious, comatose, and died at 8.25 a.m. April 1st, less than 13 days after the initial symptoms appeared.

Autopsy was made, 7½ hrs. post-mortem, and showed as follows:—

Nutrition and muscular development were very good. Rigor mortis, firm. Marked post-mortem staining on dependent parts.

Peritoneal cavity contained no excess of fluid. Peritoneal endothelium was somewhat hazy in appearance.

The vermiform appendix showed marked injection of the vessels in its peritoneal covering, but no lymph deposit or adhesions. About the middle of the appendix a small localized, dark shading was apparent through its peritoneal covering. On opening the appendix a small quan-

tity of muco-purulent material escaped from it. About its centre was a small necrotic focus $\frac{1}{8}$ in. in diameter, corresponding to the dark shading noted from the exterior. No foreign body was present in the appendix.

The spleen was enlarged and soft, and contained two small infarctions. The liver was large and very friable, congested and presented a peculiar mottled appearance. The portal vein contained a decolorized ante-mortem clot which extended some distance into its smaller branches. The thrombus was non-adherent, pretty firm, and showed no evidence of breaking down or of pus surrounding it. Microscopic examination of the liver revealed marked fatty degeneration. Kidneys showed marked parenchymatous and fatty degeneration. Stomach and intestines were congested—otherwise normal.

The pleural and pericardial cavities contained a small quantity of clear serous fluid.

Both lungs showed hypostatic congestion and œdema, but were crepitant throughout.

Heart-muscle was soft. Right side was full of dark fluid blood. Left side was contracted and empty. Mitral segments were thickened from old fibrosis, but showed no recent vegetations.

The aortic valves showed recent vegetations, one segment being perforated, and the sinus behind it almost filled with a vegetation which was pretty firmly adherent.

Bacteriological Examination :—Cultures were made at the time of the post-mortem examination from the peritoneal cavity, the blood from the right auricle and from the spleen. All remained sterile.

Cover slips from the vegetations in the aortic valves showed an encapsuled diplococcus.

This was the only organism present, and in morphology it had the typical appearance of the micrococcus lanceolatus (or pneumococcus). This was confirmed by cultures. Unfortunately the pus from the interior of the appendix was not examined.*

However, I think there is little doubt that the appendix was the point of entry of the organism into the system. No pneumonia or other local lesion was present, and in this regard the initial symptoms of vomiting and diarrhœa following an indigestible meal are of importance as directing our attention particularly to this part. Hereditary weakness of the heart and the antecedent syphilis, as shown by the history, no doubt rendered this organ a *locus minoris resistentiae* which determined the localization of the infection in it. The symptoms of nausea and vomiting were so persistent and marked throughout the whole course of the disease that a possible explanation of their intensity is suggested by the portal thrombus, with resulting passive congestion in the stomach and intestines. The presence of this thrombus is best explained by an infection atrium in the intestinal tract, whence the bacteria were carried into the portal blood. That the micrococcus lanceolatus is a frequent inhabitant of the intestine is well known, and this is not surprising when we are informed by Netter that it is present in a virulent form in the mouths of from 15 to 20 per cent. of healthy individuals, and, according to other

* The autopsy was made at a private house, and by some mistake the appendix was lost.

authorities, more or less virulent forms are constant inhabitants of the buccal cavity. From the mouth the organisms are readily carried into the intestine, with the food. The micrococcus lanceolatus is peculiarly sensitive to an acid medium, so that ordinarily in health it is probably destroyed by the gastric juice. There are periods, however, in the intervals of digestion in which an acid reaction is absent, and this often occurs in the course of certain diseases when the secretion is in abeyance or altered in its reaction. There is thus abundant opportunity, as pointed out by Flexner and Barker, for the organisms to reach the intestine from the mouth unharmed. These authors, from a study of an epidemic of cerebro-spinal meningitis due to the micrococcus lanceolatus, at Lanaconing, in Maryland, in 1894, after discussing the various possible points of infection, produced evidence which led them to conclude that the infection was probably through the blood, "and that the intestinal tract may be regarded as the way of entrance, if not in all, at least in many cases."

In two cases of peritonitis reported by Flexner, in which the micrococcus lanceolatus was the pathogenic agent, the infection was by way of the intestinal canal, and in one of these he was able to trace the organism from the mucous surface into the glandular layer and on to the subserous lymph spaces. Inflammatory lesions in the intestine with diarrhœa or dysentery, seem often to precede this mode of infection.

In acute croupous pneumonia the lobar distribution of the lesion, as pointed out by Coates, suggests an infection through the blood, and the anatomical relationship of the lungs to the blood current would help to explain the frequency with which the organism produces its pathogenic effects in *these* organs, apart from the fact that they appear to be a favorable seat for the growth of the germs. After having once gained an entrance to the blood, the ultimate localization of the lesson which they will produce appears to depend largely upon the existence of a *locus minoris resistentiae* in the particular case. Thus, in some cases, the organisms produce an acute croupous pneumonia, with or without such concurrent lesions as pleurisy, pericarditis, malignant endocarditis, meningitis, arthritis, peritonitis, etc., in all of which lesions, if present, pneumococcus has been found. So, too, any of these lesions may be produced by the pneumococcus entirely apart from the existence of pneumonia. In other cases the pneumococcus is widely diffused through the blood, producing a true pneumococcus septicæmia, corresponding to the *usual* type of disease produced by experimental inoculation in susceptible animals. This condition appears to depend upon the virulence of the organisms and the resisting power of the individual. This pneumococcus septicæmia may be present, also complicating pneumonia or other more local lesions, producing a severe and often a rapidly fatal type of the disease.

The micrococcus lanceolatus is, according to Flexner's statistics, next to the streptococcus pyogenes, the organism most frequently found in the terminal infections of chronic diseases of the heart, liver and kidneys. Thus, from a consideration of the diseases in which it may give rise, we are in a position to appreciate Welch's statement that it is an organism of the most manifold pathogenic possibilities.

In lobular pneumonia, in which it is sometimes found, the distribution

of the lesion suggests a local infection, by way of the bronchical tubes, by inhalation.

From its frequently being present in discharges from the ears and nasal passages, it is probable that there are also sources of systemic infection in some cases.

The early investigations of Sternburg, Talamon, Fraenkel, Weichselbaum and others established this organism as the specific cause of the majority, and, perhaps, all cases of acute croupous pneumonia before its etiological relationship to so many other pathological conditions was known, thus accounting for the name diplococcus, pneumonia or pneumococcus, which is commouly applied to it. Considering the fact that it is now known to produce lesions in so many other organs and tissues of the body, it is particularly unfortunate that it should be designated by a name suggesting an exclusive relationship to one disease. This has given rise to much confusion, and has, perhaps, led among physicians generally to an underestimation of the pathogenic effects produced by the organism in structures other than the lungs.

Consequently, many other names have been applied to it, of which the one given to it by Talamon, micrococcus lanceolatus, is, according to Welch, perhaps the least objectionable.

A consideration of the wide distribution of the micrococcus lanceolatus and its great pathogenic possibilities, enables us to take a wider view of the conditions present in croupous pneumonia, directing our attention more to the evidences of systemic poisoning produced by the toxines of the organism, to evidences of infection of the blood or other organs, than to too close a consideration of the local condition in the lungs. In brief, it is probable that the local reaction in the lung is rather a conservative or protective process, attempting to wall off and so guard the system from a general infection.

NERVOUS AND MENTAL DISEASES AMONG THE JEWS.—The following rather startling reference to the Jewish race is made in the review of the work of Dr. Buschan, the anthropologist (who has attempted to investigate the forms of nervous and mental diseases peculiar to the different races of mankind), by the *Journal of Mental Science.*

"Dr Buschan brings out in clearness and detail the great frequency of insanity among the Jews. From all the information gathered, it appears that with the Jewish population mental derangement is from four to six times as common as in the Gentile. Even in Palestine this proclivity holds good. According to Tobler, almost all the Jewish women are hysterical. Diabetes is very common, but it is doubtful if epilepsy is more common. As Ziemssen has observed, there is a neurotic strain through the whole race of Israel. The extraordinary proclivity to mental disease is not due to heightened mental exertion, since many Jews, as in Hungary and Poland, lead a very quiet life, and yet there the tendency to neuroses is still marked. May we not seek the cause in the long continued persecutions which have followed these people through so many generations, and to the frightful struggles and sufferings they experienced in the middle ages?"—*Pœ. Med. Journ.*

SURGERY.

IN CHARGE OF

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SURGERY FOR TYPHOID PERFORATIONS.

BY JOSEPH PRICE, M.D., PHILADELPHIA.

I submit the following report of cases operated on for typhoid perforation for the lessons they may convey, and will discuss them from the standpoint of our more recent experience.

CASE 1.—Mrs. A. O., aged thirty, having several children, but without a history of miscarriages, was admitted to the hospital on October 2, 1896. She was seen by Drs. Hughes and Owen in consultation after some three weeks of illness, with a typical history of typhoid fever. Operation was performed on October 1st. Symptoms of perforation were present with well localized attacks of peritonitis and an irregular and ill-defined tumor on the right side. Omentum and small bowel were found adherent in the region of the ileo-cecal valve. The adhesions were easily freed and two perforating ulcers, six inches apart, were found. The lower one, situated a few inches from the valve, was large, irregular, and necrotic; the second one was higher up in the bowel, about one-half inch in length, well defined, and less healthy in appearance.

A puddle of filthy fluid was found about the perforations, and the omentum and appendix were also involved in the adhesions. The infected portions of the omentum and appendix were removed. The holes in the ileum were trimmed and sutured, and an irrigation toilet was followed by both glass and gauze drainage. The mesenteric and retroperitoneal lymphatics were generally enlarged and easily recognized by touch and sight. Recovery ensued without a hitch.

CASE 2.—Mrs. B. K., a married woman, aged twenty-six, with two children and a history of one miscarriage, was admitted to the hospital on June 4, 1896. She had a rapid pulse and high temperature, and appeared to be in a decided septic condition. Peritonitis was quite general, and alarming emaciation had taken place apparently as a result of some lung trouble. Section was made on June 5th. General adhesions were found in the region of the ileum and right groin. When all adhesions had been freed, a large, ragged perforation was found in the ileum, with circumscribed accumulation of bowel contents. The perforation was

trimmed and sutured. After an irrigation toilet, glass and gauze drainage were provided. Recovery followed. For two days following the operation the pulse remained high and feeble. The temperature also was high, and this was considered rather favorable. This patient had been very ill for two weeks before admission to the hospital. The character of the ulceration was doubtful, as there was tuberculous trouble in the lungs. The closure of the fistula after suturing is rather against tubercle, as tuberculous fistula rarely close by suture.

CASE 3.—Mrs. R. B., a married woman, aged twenty-eight, without children and without a history of miscarriages, came under observation after three weeks of illness and treatment for typhoid fever. She was admitted to the hospital on January 5, 1895, and went into collapse soon afterward, being unconscious at the time of operation. On January 6th section was undertaken, freeing all adhesions, stitching multiple bowel-fistula, detaching lymph from the bowel with gauze. There was a general angry peritonitis, with filthy bowel contents, and filthy inflammatory products throughout the peritoneal cavity. Gaseous distention was marked and the peritoneum had a decided fecal odor. Thorough irrigation and drainage were practised. I never attempted to close a filthier peritoneal cavity than this, either ante-mortem or post-mortem. Recovery followd. There were present at the operation Dr. N. Fred Essig, of Spokane, Washington; Dr. Samuel S. Q. Robinson, of the U. S. Army; Dr. Harold Bunn, of California; Dr. John F. Roeder, Dr. H. S. Lewers, and Dr. Garden, of Philadelphia.

Notwithstanding the great progress medical and surgical science has made, typhoid fever continues to present many complex and difficult questions. It must be classed among the most grave troubles with which the profession has to deal. Little is known about the disease, other than of its more objective symptoms. There is no exactitude or certainty in its treatment, which is rarely the same by any two physicians. The treatment begins with guesses and grows into some degree of certainty only as conditions improve. I will not attempt to deal with the larger circle of facts connected with typhoid fever, but will restrict my discussion to the surgical treatment of typhoid perforation.

Again, we have a wide divergence of opinion as to the propriety or wisdom of the operation. There is no very general accord of opinion as to prognosis or the definiteness and reliability of symptoms—as to reliable evidence of perforation—nor is it agreed that all these cases prove fatal.

Dr. Reginald H. Fitz, of Boston, has furnished valuable data as the result of a study of the work of the earlier investigators as to the fatality of typhoid perforation. Louis, Chomel, and Jenner have reported numerous cases of typhoid perforation, but none of recovery. Tweedle says: "Intestinal perforation is always fatal, generally within thirty-six hours." Some more recent authorities make more favorable reports, others agreeing with the earlier authorities as to the almost certain fatality.

Griesinger holds that there is a possibility of the healing of a perforation and of recovery "never in cases of general peritonitis, only when the inflammation is wholly circumscribed." The rare exceptions are

hardly worth considering in connection with the prognosis, which is to be regarded as almost fatal when the systems of perforation are distinct, and as absolutely fatal when gas is present over the liver. Murchison, who has contributed much that is valuable to the literature of the subject, says that "rare cases are met with where recovery ensues after all the symptoms of peritonitis from perforation." Dr. Reeves reports that: "I have seen in five instances all the symptoms which announce and follow perforation of the bowels, yet the patients recovered. Dr. Loomis, in discussing the subject says: "I do not remember to have seen a single recovery after there were unmistakable evidences of intestinal perforation. Recovery from a local peritonitis complicating typhoid fever is not uncommon, but when the characteristic symptoms of intestinal perforation are present, in my experience, a fatal issue soon follows." So we have the weight of authority on the side of almost certain fatality.

In the reported cases, due allowance must be made for errors of diagnosis. In many of these cases the diagnosis was not made until post-mortem examination revealed the characteristic typhoid lesions. Had recovery taken place much doubt would have remained in the mind of the operator as to the real nature of the perforation. We know that typhoid perforations are the most common variety of perforations, and the perforation is usually in the ileum.

As to the mortality in cases of the perforation of the bowel, Dr. Osler gives recent statistics: "In 114 cases of the 2,000 Munich autopsies (5.7 per cent) and in fourteen instances in my series, the intestine was perforated and death caused by peritonitis. The perforation may occur in ulcers, from which the sloughs have already separated, or it may be directly due to the extension of a necrosis through all the coats. In only a few cases is the perforation at the bottom of a clean, thin-walled ulcer. In one instance the perforation occurred two weeks after the temperature had become normal. The sloughs were, as a rule, adherent about the site of the perforation. A majority of the cases were in small, deep ulcers. There may be two or even three perforations. The orifice is usually within the last foot of the ileum. In only one of my cases was it distant eighteen inches. Peritonitis was present in every instance.

Hemorrhage from the bowels occurred in ninety-nine of the Munich cases, and in nine of my series. The bleeding seems to result directly from the separation of the sloughs. I was not able in any instance to find the bleeding vessel. In one case only a single patch had sloughed, and a firm clot was adherent to it. The bleeding may also come from the soft swollen edges of the patch. Peritonitis without perforation may also occur by extension from the ulcer, or, occasionally, by rupture of a softened mesenteric gland. It was present in 2.2 per cent. of the Munich autopsies.

The question is direct—what chances does surgery offer? The one and only chance left. We know the almost inevitable sequel in one case and something of the possibilities in the other. The one means death, the other gives a chance of recovery. The error, to put it mildly, consists in abandoning these cases as absolutely hopeless, when there is yet one last resort—surgery—which furnishes precedents of encouraging suc-

cess. I am not venturing upon entirely new ground. Dr. James C. Wilson, the honored President of this Society, a clinician of wide experience, stands among the first, if not the first, to advocate in clear, unequivocal language, surgical dealing with these cases. Dr. Hunter McGuire, of Richmond, Va., a worthy supporter of the fame of the old school of surgeons, recommends the tying of vessels to control hemorrhage from ulcers in typhoid fever. He recognizes that too many are lost from this cause, and suggests an original and ingenious method of suturing to control the hemorrhage and avoid necrosis. We are slow in following the lead these men take, slow and hesitating in adopting their urgent suggestions, in coming down from our theoretic lofty height. All our surgical procedures have made their way in the face of relentless criticism and opposition. Surgical interference, in cases of typhoid perforation, has not proved an exception. Largely, the difficulty lies in timidity and over-sensitiveness as to professional repute. The protective character of adhesions are often misleading, tending to lull apprehension as to immediate existing risks to life. The condition is too frequently classified for non-interference—left to the processes of nature—when parts are weakened and poisoned beyond the kindly healing and remedial processes of nature. We find, occasionally, recorded deaths from spontaneous perforation due to chronic local peritonitis. The history may be that of localized attacks of peritonitis—with doubtful evidence of perforation—the localized attack resulting simply in adhesions about the ulcer. If the adhesions are well formed the escape of gas and bowel-contents will be limited when perforation occurs.

The patching or fortification by adhesive and protective peritonitis, avoiding acute general peritonitis and sepsis, gives us the most favorable class of cases for surgery. Localized peritonitis, with adhesions, with or without perforation, around an ulcer, with sufficient adhesive and inflammatory product to form a small tumor, is quite easily recognisable in an emaciated patient. An eminent surgeon says, in connection with these cases, that which cannot be accepted as safe dictum :

"Surgeons are not justified in performing laparotomy for the suturing of perforated typhoid ulcers, if circumscribed peritonitis of an adhesive or protective character exist, or is in process of development."

The trouble, as with all intestinal affections, is a hidden one, not one directly addressed to our vision. We cannot determine with any large degree of certainty, even from a few marked objective signs, the extent of the protected character of the adhesions, nor determine anything certain as to the character or extent of the process of development. We know the sequence in the majority of these cases where there is no interference. Perforations or fistulæ, due to ulceration and sloughing, rarely close. Almost all such ulcers are surrounded by adhesions, with pus, bowel-contents, fistulæ and fistulous openings. Complications become general, keeping the patient in a miserable condition, emaciated and anxious, with a rapid pulse, cold, clammy and greatly wasted. Fistulæ of viscera, due to incision or surgery, commonly closes spontaneously. Not so, however, when due to sloughing. Unfortunately, we are not always aided by the clinical history in our diagnosis. We are directed or guid-

ed largely by the patient's general condition, the peritonitis or the small and ill-defined tumor.

There is but little difficulty in settling the fact that the patient is dying of some intra-peritoneal lesion. Errors are rarely made in opening the abdomen. Suture methods for repair, after careful trimming of the ulceration, give the most pleasing results. Excisions or resections have nothing to recommend them. The open treatment, when the conditions are desperate, and sepsis and bowel distention very marked, favors peritoneal and bowel drainage of all contents. An abundance of gauze placed about the fistula in the shape of a square coffer-dam favors simple drainage and avoids contamination. The large mortality has been largely due to clumsy and imperfect work. Everything within the abdomen is intolerant of bungling manipulation. The surgery is not to be gone at with that awkwardness with which a man would try to put his five fingers in a glove with four. The delicacy of the condition of the parts, which the very nature of the disease creates, requires in the surgery the use of fingers delicate and sensitive of touch and deft in use. The repair of perforations, commonly single, rarely multiple, is easy and should be rapid. There may be some delay in the seeking and finding the point of perforation, but the well-defined nature of the pathologic condition at that point is easily recognized by fingers familiar with normal intra-peritoneal conditions. The deviation from the normal can be instantly recognized when the fingers are passed through the viscera without exposure. The cluster of adhesions, omentum and bowel, about the perforation, are easily freed. The cleansing, local and general toilet are of great importance. Rarely do we find distention associated with perforations, except in the delayed cases, on the third or fourth day after perforation.

In delayed cases the mass is well marked; paresis of the bowel with over-distention is prominent. The characteristic fecal odor is recognizat once upon opening the abdomen. This is most marked in the acute cases in those dying soon after perforation. If the adhesions are well formed about the perforation, a fecal odor is rarely present. When patients are under observation, the diagnosis made early, the disease running a uniform course with a definite train of symptoms, the characteristic morning remissions and evening exacerbations, and about the third week a copious intestinal hemorrhage takes place, with the patient sinking into fatal collapse, with a quick pulse, sub-normal temperature, the symptoms admit of but one interpretation, and point to but one possible source of relief.

In the very nature of things, from the very character of the trouble and the parts attacked, the mortality will always be large, but some can be saved. The stimulus of anesthesia increases the force of the pulse, the patient's respirations deepen, and at the completion of many of these operations, the patient's general condition is often better than before the operation. An irrigation toilet, aside from having great value for cleansing, is a stimulant to the solar-plexus and favors reaction.

The same principles apply in these cases of typhoid perforating ulcers that apply in cases of general septic or purulent peritonitis and to stab

wounds and gun-shot wounds. The words of Dr. D. Hayes Agnew, who, in his day, was the sovereign spirit of American surgery as applied by him to gun-shot wounds of the abdomen, applies with equal appropriateness to typhoid perforations.

He says: "I want to place myself upon record, for I have very strong convictions with regard to laparotomy. They amount to this: If there is a reasonable degree of evidence that there is a penetrating abdominal wound, especially if a shot-wound, it is our duty to open the abdomen, to make an exploratory incision. We are not to be deterred by the possibility of some legal technicality, if the case should come into court. We are to do our duty without reference to consequences."

I will quote extensively from Dr. J. C. Wilson, for nothing better has been said upon the subject:

"I take it for granted that almost every case of free extravasation of intestinal contents, however small in amount, into the peritoneal cavity terminates fatally. There is little reason to believe that any case of this kind recovers. It is important to note that the cases of peritonitis in enteric fever in which recovery is possible can be chemically distinguished from those which will terminate rapidly in death. The clinical picture of the two conditions is almost as distinct as are the pathological lesions. Where there is extravasation of the intestinal contents into the peritoneal cavity, the collapse is like that caused by the escape of an amount of foreign matter, the result of a perforating gun-shot wound of the intestine. The proposition which I submit for discussion arises directly from a consideration of the matter in this way. Until within a few years no surgeon realized the possibility of treating cases of gun-shot injury of the abdomen with perforation of the intestine and the escape of blood and fecal matter by the operation of laparotomy, washing out the peritoneal cavity, excising bruised and lacerated portions of the intestine, and bringing the parts together by suture. Yet this is now the recognized procedure in such cases, and has been of late practised in many instances with success in cases that, under the old plan of opium and expectancy, would have inevitably perished.

"Are we ready to adopt the same measures in perforation of the intestine with similar conditions as regards the peritoneal cavity, and a like helplessness as regards cure by opium and expectancy in our cases of enteric fever? Recognizing the two groups of cases I have described, and being, as we are, able to refer almost all cases to either one or the other of them within a few hours of the development of the symptoms, are we prepared to decide—and to do so with the necessary promptness—upon those operative procedures by which alone in the second group the life of the patient may be saved?

"Granted that the chances of a successful issue are heavily against you; that the patient is in the midst or at the end of a long sickness; that his tissues are in the worst state to stand the injuries of the surgeon's knife; that the lesions of the gut may be very extensive; that the vital forces are at the lowest ebb. No one yet has hesitated to perform tracheotomy in the laryngeal complications of enteric fever, which require it to save life, for these reasons."

The operative treatment of purulent peritonitis has been performed many times successfully by the gynecologist in conditions scarcely less unpromising. In point of fact, the objections that may be urged against laparotomy in intestinal perforation in enteric fever are no more forcible than those which would have been made use of at first against the same operation in gun-shot wounds of the abdomen. The courage to perform it will come of the knowledge that the only alternative is the patient's death. Dr. Wilson, with his advanced, pioneer views in this connection, does not furnish the first illustration of the physician taking the lead of the surgeon, furnishing the guiding, the impelling thought, not infrequently the courage.

About seven years ago the American Surgical Association and the Association of American Physicians discussed, at the same time and in the same building, the relative merits of surgical and non-surgical interference in appendicitis, the medical body deciding in favor of prompt operative interference, the surgeons for delay. Almost coincident with Dr. Wilson's advocacy of celiotomy for the relief of intestinal perforation in typhoid fever, Dr. Lewis S. McMurtry, of Louisville, Ky., performed an operation, the subject being a physician, and found multiple perforations. He trimmed the holes, closed them with sutures, irrigated and drained, recovery following. A report of this case, with the patient present at the time, was made at the Cincinnati meeting of the American Medical Association.

There is another record case—that of McArdle, of Dublin. The history is one of abscess and multiple perforations following an accident, occasioned by jumping from a waggon.

The accident is not a very satisfactory explanation of the trouble in this case. The evidence better supports the conclusion that the case was one of walking typhoid fever with multiple perforations. I might refer to cases in my own experience, and that of others, in which the history was doubtful. A considerable number of operations for circumscribed abscess have been reported as successful. Many of these cases are quite as questionable in their history as are those for which post-mortem operation has been done or refused.

In this connection Fitz says:

"Although the reported instances of the successful results of an operation for the cure of circumscribed peritonitis in typhoid fever are comparatively few, I have been able to collect a considerable number in which recovery resulted from resolution or from the spontaneous evacuation of the inflammatory product. In seventeen cases of recovery by resolution the peritonitic attack began in the second week in one, in the third week in eight, in the fourth week in one, in the fifth week in one, and in the sixth week in two. It began at the end of the fever in one, and during convalescence in three. Recovery took place in a week in one, in two weeks in three, in three weeks in two, in four weeks in one, and in two or three months in three. The length of time necessary for recovery in the remaining cases was not stated."

It is a mistake, on the part of gynecologists and obstetricians, to apply the term typhoid fever to certain septic conditions. The sponge-

tent, the curett, the sound and a variety of minor gynecologic operations have been followed by septic conditions and abscesses, frequent pulse, high temperature and diarrhœa—simulating typhoid fever.

Obstetricians are in the habit of reporting septic cases under the head of malaria. The recorded mortality is largely from the prolonged anæsthesia of a patient already enfeebled and with a greatly weakened heart, and the great length of time taken in the operations. They will not stand prolonged anæsthesia or a prolonged operation. In a large percentage of those dying after long anæsthesia and operation, death is due to causes within the surgeon's control.

One of the common causes complained of is that of weak, unhealthy tissue, and the yielding of sutures. Herein lie two errors—the choice of needle and that of suture-material. The best needle is that from the woman's sewing case—a fine, round needle, and 0 or 00 Chinese silk.

Early diagnosis, early operation, painstaking, rapid work will save many lives.

Courage goes hand in hand with reverence for human life. There is much force in what Napoleon said to Las Casas: "As to moral courage, I have rarely met with two-o'clock-in-the-morning kind. I mean unprepared courage, that which is necessary on an unexpected occasion, and which, in spite of the most unforeseen events, leaves full freedom of judgment and decision." It is two-o'clock-in-the-morning courage we need—the factor that goes largely to settle the result in many surgical cases for us is the last quarter-of-an-hour.

VENEREAL BUBOES.—Dr. J. C. Perry (*Am. Jour. of the Medic. Sciences*) has employed the treatment described by Dr. Hayden in seven cases with extremely satisfactory results. This method consists in making a small puncture of the skin at the most fluctuating point of the bubo; thorough evacuation of the pus; irrigation of the cavity with peroxide of hydrogen followed by bichloride solution 1:1000; removal of all fluid by compression, and distension of the cavity with warm vaseline holding in suspension 10 per cent. iodoform; and application of a cold bichloride dressing to favor congealment. Of Dr. Perry's patients five were cured by one injection, the average time of treatment being thirteen and one-half days. On the ground of his experience he concludes:

1. That buboes are probably caused by the absorption of chemical poisons, the result of the action of the micro-organisms in the chancroid, and not to the entrance of the micro-organisms themselves into the lymphatics.

2. That the benzoate of mercury yields such satisfactory results that it should be employed in the treatment of non-suppurating buboes, and excision reserved for those cases in which benzoate has failed.

3. The injection of iodoform-ointment should be used in the treatment of all freely suppurating buboes, since statistics show that it yields much more satisfactory results than the other methods of treatment applicable to this variety.

4. Incision and curettement should be used in a few cases in which the

skin has been destroyed and the ulcer presents an unhealthy granulating surface.

5. Excision should be reserved for cases that have not yielded to other treatment, and for those in which there are several foci of suppuration.

THE INCISION IN APPENDICITIS.—Dr. J. S. Wight (*N. Y. Med. Jour.*) states that the hypogastric incision is made nearly parallel with Poupart's ligament. It is slightly curved, having the convexity downward and outward. Draw a line from the umbilicus to the superior anterior spine of the ilium, and divide it into three equal parts. The hypogastric incision is made near the junction of the outer and middle thirds of this line. The location of the incision may vary according to circumstances. The incision may be made quite near the spine of the ilium. It usually begins a little above the line drawn from the umbilicus to the spine of the ilium, or it may be made wholly below this line. At the outset the incision may be about two inches in length, and subsequently it may be extended in either direction if necessary.

SURGICAL ITEMS.

The new woman is especially imperilled. She used to have to watch the hymen; now she must look out for the appendix, the adnexæ and the mobility of her kidney with as much care as if they were her cardinal virtues.—C. L. DANA.

For acute localized prostatitis, Dr. Guepin (*Jour. d. Pract., N.Y. Med. Jour.*) employs the following:

℞

Iodoform,
Extract of hyoscyamus, } of each.....½ grain.
Cacao butter.....45 grains

M.

Another vagary, I take it to be, is the frequency with which prolapse of the rectum is supposed to exist. In my experience, extending over eighteen years, I have had but six cases of prolapse of the rectum in the adult. I have had several hundred cases of prolapse—so diagnosticated. It is true that a great many physicians call large protuding hemorrhoids prolapse of the gut. This is a mistake. When I say that I have only seen six cases, I mean in the adult. Young children often have prolapse of the gut which will take care of itself under simple treatment.—MATTHEWS.

Dr. de Bovis (*Gaz. des Hop.*, June 20th) discusses the indications for surgical treatment in non-traumatic affections of the pleura. He considers asphyxia as an urgent indication. Purulent or gangrenous processes in the pleura also demand this operation, which should be resorted to at

an early time in the latter cases. In tuberculous subjects it should be delayed so as to favor formation of adhesions; the presence of a more or less marked pyæmic state will determine the degree of urgency of surgical interference. As a rule the results are good. The resulting thoracic fistulæ are drained, if the general health permits.

The only conclusion at which one can arrive after a study of all the symptoms of chronic abscess of the brain, is that the diagnosis is often a most difficult one, and sometimes is an object of impossible attainment. The nearest approach to accuracy in diagnosis in obscure cases, is to arrive at a conclusion which amounts to a problematic diagnosis between two or more morbid processes. To recommend an operation for the relief of chronic abscess of the brain only in those cases in which the diagnosis is certain, is to sacrifice many lives that might otherwise be saved by judicious boldness. The physician who has not the courage to recommend an exploratory operation in a strongly probable case of abscess of the brain, lest he may be wrong in his diagnosis, is more solicitous for his own reputation than for the welfare of his patient.—ESKRIDGE.

NEVUS OF THE FACE.—Dr. Abbe (*Med. News*) says that the best treatment consists in the use of an ordinary large cambric needle or a hat-pin, heated to a red heat, and then plunged into the tissues of the nevus *at a black heat.* The insertion of the needle at a black heat has much to do with securing a good result. Punctures should be made in this way all over the tumor. There is no bleeding whatever, and the case is usually cured in three or four operations.

POSTURAL TREATMENT OF SEA-SICKNESS.—Rawlins, an English physician, says that the elevation of the extremities will quickly relieve the symptoms of sea-sickness by increasing the arterial pressure, and thus diminish the anemia of the nervous centres due to the enfeebled action of the heart. The application of warm flannel bandages to the legs and arms will increase the effect produced by the simple elevation. In this way he was able to make two ladies comfortable during a journey to India, who had previously suffered seriously from severe sea-sickness.

PALPITATION OF THE HEART.—The various diseases that are accompanied by palpitation, incipient acute aortitis, acute endocarditis, acute pericarditis, adhesions of the pericardium, and mitral stenosis or insufficiency, are benefited by digitalis or its substitutes. I give the following formula:

℞ Quinine hydrobromide, 1 drachm.
Powdered digitalis, 30 grains.
Extract convallaria, 30 grains.

Divide into forty pills; two to four to be taken daily.—HUCHARD, in *Archives de Médicine et de Pharmacie Militaires.*

MEDICINE.

IN CHARGE OF
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THE EARLY DIAGNOSIS OF CANCER OF THE STOMACH.

BY CHAS. D. AARON, M.D., DETROIT.

If our treatment of cancer of the stomach shows poor results, it is due to the fact that the medical practitioner usually does not make his diagnosis early enough, and when the surgeon is called, he finds a disseminated mass instead of a circumscribed tumor to be extirpated. When we take into consideration that .5 to 2.5 per cent. of all deaths and 35 to 45 per cent. of all cancers are of the stomach, it is time that more attention be paid to an early diagnosis. It is because the average physician neglects a more detailed examination and resorts to bismuth and pepsin, that cancer of the stomach has been allowed to attain such development as makes an operation practically useless. What, years ago, Brinton said of cancer of the stomach, is still true to-day. He said, it is obscure in its symptoms, frequent in recurrence and fatal in its course. In spite of the progress made in the diagnosis of stomach diseases, the therapy of cancer of the stomach remains the same, namely, early extirpation. But when a large tumor can already be felt in the epigastrium, it is usually too late to operate, since then the surrounding tissues are involved by metastasis.

It is the intention of this paper to show how beneficial it would be, in the majority of instances, if a diagnosis were made before a tumor is palpable. We are told of recoveries after operations on cancerous patients, when the tumor was already palpable, but these cases are extremely rare. It is possible that the diagnosis was made early by one who was able to locate the new formation. But can we make a diagnosis on the basis of the general course of the disease, even if the presence of a tumor has not been established? Boas tells us that strong Uffelmann's reaction after a test breakfast points out the probability of cancer of the stomach. Heretofore it was believed that when we had a case of chronic gastritis, with absence of hydrochloric acid, either lactic, butyric or acetic acid fermentation takes place. This has been proven not to be true. While we were formerly able to demonstrate that lactic acid is present in cancer of the stomach, this circumstance was not given sufficient weight until Boas drew our attention more particularly to it. Boas says that in cancer of the stomach Uffelmann's test gives us a greenish-yellow reaction, due to the presence of lactic acid, and that the little quan-

tity of lactic acid which results from other causes does not react in the same way. Ewald tells us that the advantage of Uffelmann's test is its extreme sensibility to lactic acid found in carcinomatous patients, but in the differential diagnosis the abundance of lactic acid should always be taken into consideration.

To get an intense lactic acid reaction, it is necessary that there is a stagnation of the stomach contents, and that hydrochloric acid is absent. If only one of these conditions is fulfilled, as in chronic gastritis or dilatation, we cannot get this reaction. I concede that in rare instances we have a formation of small quantities of lactic acid, but it occurs in small quantity only, and it does not give the characteristic reaction, as lactic acid does in carcinoma of the stomach. Whether we have a specific lactic acid or not in cancer of the stomach, I will not discuss here.

When the stomach contents show the absence of hydrochloric acid and the persistent presence of lactic acid, we are able to make a diagnosis by differentiation. There can be a choice of but one of three diseases, nervous anacidity, chronic gastritis or malignant new formation. We can always exclude nervous anacidity and chronic gastritis, on account of the persistent presence of lactic acid, which always indicates carcinoma of the stomach. It is necessary to look for a stagnation of the contents of the stomach. The patient may have vomited food which had been taken a day or two before, or we can estimate the amount of the stagnation by washing out the stomach. In chronic gastritis we never have a stagnation; there is usually a prompt forwarding of food into the intestine. In fact, in many cases of chronic gastritis, the motor function of the stomach is heightened, as I have often seen.

It is unnecessary to wait for the cachexia, edema of the joints, enlargement of the glands, fissured tongue, emaciation, obstinate coffee-ground vomit, insomnia, vertigo and the palpation of a tumor to make a diagnosis of cancer of the stomach. No surgeon can give us a good result after these symptoms have already appeared. It must not be forgotten that, in a number of cases, the liver prevents us from palpating a growth of pylorus until it is quite large. It is frequently found that the fenestra of the stomach tube is filled with small particles of clotted blood. Professor Ewald regards this as an indication of carcinoma, even though a tumor is not yet palpable. These particles should always be examined microscopically, and if cancer cells are present, our diagnosis is verified, but if absent, we can only suspect it. A diagnosis of cancer of the stomach can usually be made several months before the tumor becomes palpable.

The following points may be looked for: 1, a stubborn case of stomach disorder appears in a person (say between 35 and 60) who was formerly in good health; 2, loss of weight and flesh; 3, vomiting occurs often; 4, a test breakfast proves that free hydrochloric acid is absent; 5, there is a stagnation of the stomach contents; 6, lactic acid is shown to be present in abundance; 7, a microscopic examination shows that long thread bacilli are present. Cases are repeatedly reported abroad in which, after a diagnosis of cancer made by the above symptoms, exsection of the pylorus was performed and the cure of the patient achieved.

It seems to me we are now able to make an early diagnosis of cancer of the stomach, before metastasis has taken place, by means of a thorough examination after a test breakfast.

I do not mean to imply that by means of the seven data I have enumerated every cancer of the stomach can be easily recognized, but they indicate a considerable step forward in an early diagnosis, and thus open up for the surgeon opportunities which were closed to him till now.

For the examination for the presence of lactic acid, Uffelmann says that diluted solutions of neutral ferric chlorid turn canary yellow in presence of lactic acid. Should this reaction give no positive results I would advise Kelling's modification. This consists in diluting the filtrate of the gastric contents from the tenth to the twentieth fold; to this one or two drops of a 5 per cent. ferric chlorid solution is added, and a greenish yellow discoloration takes place. This proves the presence of lactic acid. In order to avoid the obscuration of this greenish color through the rhodan, which originates from the saliva, Keeling adds a few drops of a sublimate solution. The procedure as recommended by Strauss can also be applied. This consists in filling a burette, graduated at 5 and 25 c.c. respectively. We fill the burette up to 5 c.c. with the stomach filtrate, and add sulphuric ether up to the mark 25; this is well shaken, and through a stop-cock at the bottom the burette is emptied to 5 c.c. and filled to 25 c.c. again with distilled water. To this are added two drops of a ferric chlorid solution (one to nine) and the whole is shaken. According to Strauss, if lactic acid up to 1 per cent. is present, an intense green appears, and if the percentage is lower a pale green is noticeable

For exact scientific data, the method of Boas is valuable. It aims at a decomposition of the lactic acid into acetaldehyde and formic acid, by adding some oxidizing agent and by the aid of heat.

$$\underset{\text{Lactic acid.}}{CH_3CH(OH)COOH} = \underset{\text{Acetaldehyde.}}{CH_3CHO} + \underset{\text{Formic acid.}}{CHOOH}.$$

The presence of lactic acid is proven by the existence of the aldehyde through the formation of iodoform, with an alkalin iodin solution, or through the formation of mercuric aldehyde with Nessler's reagent.

In former years the results attained by exsection of the pylorus were far from satisfactory. This was due to the fact that it had been resorted to too late in the stage of the disease, when complications had arisen and the patient had been reduced in vitality, and metastasis had taken place. Later statistics, however, are more favorable, and show what can be accomplished when a diagnosis has been made early. Haberkant performed 207 exsections of the pylorus, of which 114 were due to carcinoma; he had 93 recoveries and a mortality from pylorectomy in the carcinoma cases of 55.8 per cent. Hahn, in 1891, had a mortality of 77 to 41 per cent. Zeller, in 1893, a mortality of 61 to 34 per cent. But the most gratifying results Mikulicz reports in 1895. Out of eighteen pylorus exsections he lost only five cases. These statistics are in themselves a proof of the possibilities of success of pylorectomy, on condition of an early diagnosis. I cannot warn too earnestly against the habit which physicians have, of waiting for the appearance of a palpable

tumor, before they advise surgical procedure. Czerny and Rindfleish have as far back as 1892 emphatically declared that, in the majority of cases when we make a diagnosis of cancer of the pylorus by the palpation of a tumor, no radical operation should be made.—*Jour. Am Med. Assoc.*

THE TREATMENT OF CEREBRAL HEMORRHAGE.

In *Treatment*, for July 8, Dr. Byrom Bramwell has an article on this subject, of which the following is the substance.

"At the beginning of an attack of cerebral hemorrhage, says the author, the first indication for treatment is to try to arrest the bleeding and limit the extravasation, and this is done by lessening the activity of the cerebral circulation. The head and shoulders should be raised rather than lowered. An ice-bag should be applied to the head and warmth to the feet. Leeches may be applied behind the ear, and a drop or two of croton oil administered. Venesection, bleeding from the temporal artery, compression of the common carotid artery, and ligaturing the carotid artery on the side of the hemorrhage are, he says, other methods which have been recommended.

"Bleeding, Dr. Bramwell believes, is useful and especially indicated in those cases in which the face, head and neck are turgid, the pulse is hard, full and slow, and the left ventricle is hypertrophied. It is contra-indicated, however, in cases in which the pulse is feeble, rapid or irregular, the heart dilated or weak, and the patient very old or debilitated.

"A brisk, watery purge acts, he says, in very much the same way as a moderate bleeding, but for the production of such a purge time is required; consequently, in many cases, venesection is preferable. In cases in which the advisability of bleeding is doubtful, a drop or two of croton oil and an enema may be administered. The practice of applying a blister to the nape of the neck is, Dr. Bramwell thinks, of doubtful advantage. In several cases, he says, it is useless, and in slight cases in which coma is speedily recovered from it is unnecessary. If a blister is to be applied at all, it is probably best applied to the shaved scalp between the ears over the top of the head. The ice-bag may be applied over the top of the blister.

"Internal remedies Dr. Bramwell considers doubtful, as they have not much influence in arresting the bleeding, although nitrate of amyl, or nitrate of sodium, is perhaps useful in some cases in which the pulse is hard and tense; venesection, however, he considers a better remedy.

"If coma becomes deeper and deeper, the pulse slower and slower, and the respiration more and more affected, and intracranial pressure is evidently steadily increasing as the result of gradually increasing hemorrhage, the advisability of trephining and tapping the hemorrhagic cavity, and so preventing rupture into the lateral ventricles—an event which is certainly and rapidly fatal—should be considered. Such cases are comparatively rarely met with.

"The second indication, continues the author, is to attend to the condition of the bladder, and to take means to prevent, if possible, the forma-

tion of a bed-sore. The patient should be placed at once, or as soon as he can be moved without risk, upon a water-bed. Care must be taken, too, that the hot bottles which are applied to the feet are not too hot. Owing to the comatose, or semi-comatose condition, the patient will not, of course, make any complaint (the nurse has, under such circumstances, to feel for him), and, owing to the diminished trophic resistance of the skin, a degree of heat which would not be prejudicial to a healthy person may easily blister and burn the skin of a patient suffering from cerebral hemorrhage. If there is retention of urine, the bladder should be emptied by the catheter at regular intervals; if there is incontinence, the patient should be kept dry and clean. This is a most important point, says Dr. Bramwell, for the development of a bed-sore is one of the chief dangers in cases which do not immediately prove fatal.

"The third indication is to sustain the vital powers by appropriate feeding and, if necessary, by the administration of cardiac tonics and stimulants. It is important to avoid giving anything which is likely to produce vomiting, for the straining which attends the act of vomiting may reopen the ruptured vessel, or, if the bleeding is still going on, increase it. For the same reason stimulants should be withheld, unless they are absolutely required. If the heart is failing and the pulse rapidly running down, stimulants must, of course, be administered, even at the risk of increasing or re-exciting the hemorrhage.

"During the comatose state, Dr. Bramwell continues, the administration of food and liquids by the mouth requires to be conducted with great care and caution.

"A nutrient enema may be given every four hours, and, if necessary, it may be supplemented every now and again by a nutriment suppository. During the stage of coma, mucus, saliva, etc., are apt to accumulate in the mouth and pharynx, and add to the difficulty of the respiration and the tendency to death from asphyxia; for it must be remembered that in some cases the patient dies during the stage of coma from failure of the heart's action, in others from asphyxia and failure of the respiration, in others from the two conditions combined. In others again, death is preceded or attended by hyperpyrexia.

"By attention to posture (turning the patient on his side, turning the head to one side, etc.), it is in many cases possible to avoid the accumulation of mucus, etc., at the back of the throat, and so to diminish the risk of asphyxia. The relief is, however, in most cases merely temporary. In cases of cerebral hemorrhage in which the conditions are developed, the result is almost always fatal. It is very different when we are dealing with the status epilepticus. In that condition, Dr. Bramwell says, he has undoubtedly, in more than one case, by preventing the accumulation of mucus, saliva, etc., in the back of the throat, and so preventing asphyxia, saved the life of the patient.

"Provided the patient can swallow, a teaspoonful or two of milk may from time to time be given by the mouth, but once the bowels have been thoroughly well opened it is better to feed the patient by the rectum. If there is difficulty in swallowing, if the administration of fluids by the mouth produces coughing or choking, the feeding should be entirely

rectal. Alcoholic stimulants, digitalis, etc, may be given by the same channel, or strychnine (a drop or two of the liquor every two hours) may be administered hypodermically, the effect being, of course, carefully watched.

"Possibly in some cases in which the respiration is much embarrassed and death from asphyxia seems imminent, oxygen inhalations might be beneficial.

"The main objects of treatment during the first stage of cerebral hemorrhage are to arrest the bleeding and to tide the patient through the stage of coma.

"The fourth indication, continues the author, is to prevent and allay the secondary cerebral inflammation.

"When symptoms indicative of this (a rise in temperature, headache, muscular twitchings, rambling, a return of the coma, etc.,) develop a brisk purge may be again administered, cold (an ice-bag) reapplied to the head, and bromide of potassium and chloral hydrate given in addition to the iodide.

"If, during the stage of secondary cerebral inflammation, the pulse becomes very quick, feeble, or intermittent, cardiac stimulants—digitalis, strophanthus, strychnine, etc., must be given; alcohol is probably better avoided. If the pulse tension is high, the administration of remedies which depress the force and violence of the heart's action, such as aconite or nitrate of sodium, may perhaps be employed with advantage in some cases in addition to purgation.

"As the symptoms of this secondary inflammation subside the use of bromide of potassium and chloral hydrate should be discontinued.

"After the symptoms indicative of this secondary inflammation pass off, complete rest must still be enjoyed until the acute changes round the clot have subsided. The use of iodide of potassium, with perhaps a small dose of carbonate of ammonium or tincture of nux vomica, should be continued. During this, the early stage of convalescence, the patient must be carefully fed, the condition of the bladder and rectum attended to, and any cystitis or bed-sores which may have developed treated. At this stage of the case gentle massage is useful. Faradaism of the paralyzed muscles, strychnine, and too active attempts at voluntary movement of the paralyzed parts, all of which may be most useful a little later, should be avoided, or, if employed, administered with great caution.

"Some authorities, Dr. Branwell continues, recommend the application of the constant electric current to the head—one pole being placed just above either mastoid process. The constant current, by its atalytic action, is supposed to aid the absorption of inflammatory products, and to promote the nutrition and restoration of the damaged nerve elements. It is very doubtful, he thinks, if electricity applied in this way is any real use. If it is employed the greatest care should be taken to use a weak current, and the effects which the current produces on the patient should be carefully watched.

"In severe cases of hemiplegia the tendency to the development of contractures should be remembered, and passive movements (more

especially of the fingers, wrist and elbows, for it is at these parts that the contractures are most apt to be developed) carefully and diligently practised.

"When there is reason to suppose that the acute changes have subsided —*i.e.*, at the end of six weeks or two months—the treatment appropriate for an ordinary case of chronic hemiplegia may be employed. A more liberal dietary may be allowed; the patient should be encouraged to practice systematic voluntary movements; general tonics, such as quinine and small doses of strychnine, may be given internally, and massage and electricity judiciously and cautiously applied to the paralyzed muscles.

"The treatment (amount of exercise, etc.) must, of course, Dr. Branwell adds, be carefully and judiciously regulated in accordance with the conditions which are present in each individual patient (the severity of the paralysis, etc.), the state of his heart, arteries, kidneys, etc., being taken into account.

"Concerning the prevention of subsequent attacks, Dr. Branwell thinks that much can be done to prevent and defer a second rupture. All exciting causes should be avoided; it is especially necessary to reduce the blood pressure when the pulse tension is excessive, such as sudden efforts, mental excitement, sudden exposure to cold, straining at stool, etc. A patient who has had an attack of cerebral hemorrhage, however slight, should lead a quiet, routine life, and if his business entails much bodily exertion, mental strain or excitement, he should be advised to give it up. In some cases, however, it is usually preferable to allow the patient to continue his work in a modified way rather than to worry in his idleness. The risks entailed by the work and the risks entailed by the idleness and the want of occupation have to be weighed one against the other.

"The diet should be light and nutritious; if the patient is gouty, if his kidneys are cirrhotic, if his blood pressure is high, a non-nitrogenous diet is best. In these cases, says Dr. Branwell, alcohol should be prohibited; a certain amount of tobacco, however, may be allowed. A certain amount of gentle exercise is beneficial, but sudden exertions, running for trains, etc., should be rigidly avoided."—*N. Y. Medical Journal.*

BELLEVUE HOSPITAL AND ITS TREATMENT OF ALCOHOLICS.

It has long been known that about one-half of the patients admitted to the insane pavilion of Bellevue were alcoholics. Before a satisfactory diagnosis could be made as to the mental condition, it was therefore necessary to sober up these patients. For the past few years a systematic effort has been made by Dr. Austin Flint, who was on duty in the insane pavilion, to formulate some treatment that should be more far-reaching than the long-established use of bromides and other sedatives. Strychnine has become the drug par excellence for these cases, and its effect is so striking and so decided in cases of alcoholism that it has come to be regarded as a specific antidote to alcohol-poison. Its immediate effects, when given hypordermically, are most satisfactory and surprising. In the form and dose in which it is now administered it will clear up nearly

every case of alcoholism in from twenty-four to forty-eight hours. The formula used by Dr. Flint is as follows:

Nit. Strych.....grs. viii
Acid Salicylic.....grs. iv
Alcohol.....oz. i
Water.....oz. iii

Make up antiseptically.
M xv—1-16 of a grain of Strych.
Sig. M. 15 hypo. two or three times daily.

In the alcoholic wards proper Dr. Charles L. Dana has instituted similar investigations and has reached conclusions very similar to those of Dr. Flint In addition to the use of strychnine, however, Dr. Dana endeavors to throw about the secondary treatment of these cases the strong mental suggestion of a cure. His custom is to select, for the cure treatment, from the convalescents of an acute attack of alcoholism only those persons who have reasonable intelligence and show real evidence of sincerity in their desire to reform.—*Columbus Med. Jour.*

DEATHLESS MIDWIFERY.—The statistics of the Stockholm Hospital show 4,000 cases of childbirth and 4,000 complete recoveries.

THE DOCTOR.

Oh doctor, in our hours of ease,
We scorn your counsel as we please;
When peach and watermelon green
The bosom wring with anguish keen;
When in the night the hoarse "ka-whoop"
Rouses the house with fear of croup;
When midst the storm that rends the skies
"Newralagy" tackles grandma's eyes;
When roaring thunder-clouds low hung
Retard the play of ma's left lung;
When wintry drifts the roads impede
And baby's nose begins to bleed;
When hub-deep mud clogs all the way,
And Tommy's earache comes to stay;
Whene'er the least of human ills
Clamors for poultices or pills,
Come right away—no matter how—
A ministering angel thou.
All aches and pains are cured by you,
Save pa's tick dollar-I-owe-you.

—BOB BURDETTE.

ORCHITIS.—Use an ointment composed of one part guaiacol to six of vaselin. It is an excellent application.—*Exchange.*

ACNE ROSACEA.—A French physician reports two obstinate cases of this disease quickly cured by the local application of oil of turpentine.—*Medical Standard.*

NERVOUS DISEASES AND ELECTRO-THERAPEUTICS.

IN CHARGE OF
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EPILEPSY AND AUTO-INTOXICATION.—Dr. C. Agostini has followed up the researches of Voisin and Mirto, who have shown (*Journal of Medical Science*, July, 1897,) that the urine of epileptics possesses a special toxicity (and those of a number of other observers have demonstrated that true epileptic fits can be produced as the result of auto-intoxication by abnormal products developed in the gastro-intestinal canal) and has made an investigation into the composition and toxicity of the gastric fluid and urine in epileptical insanity at various periods in relation to fits. He finds that in the intervals between the fits the gastric juice is in most cases normal as far as can be recognized by mere chemical analysis with, however, a tendency to hyperacidity and especially excess of hydrochloric acid. For a short time previous to a fit, and for some time afterward, there are changes indicating a condition of transitory dyspepsia. An epileptic convulsion in proportion to its duration and intensity greatly disturbs the whole digestive functions of the stomach, increasing the secretion of hydrochloric acid and mucus, favoring the development of abnormal fermentation products leading to the appearance of biliary acids, lowering the peptic action, and diminishing the sensibility, motility and absorbing power of the organ. In the intervals between the fits, the toxicity of the gastric juice (tested upon rabbits) is not necessarily greater than in healthy individuals, provided the patient is not suffering from chronic gastric catarrh. In the prodromal period in relation to a convulsive seizure, and especially in those cases in which there is chronic gastric catarrh, the stomach wash displays energetic and constant toxic properties. After a convulsion this toxicity is still further increased. Attacks of petit mal increase the gastro-toxic power in a similar manner. The toxic principles appear to be of the nature of leucomaines, and are probably the same as those that are found in the gastric fluid of dyspeptics in general. Examination of the urine shows that in the intervals between the fits, the tissue metabolism of epileptics is below normal, as evidenced by the elimination of azotised substances (urea, uric acid and creatinin) phosphoric acid and chlorides. The excretion of azotised products is further diminished in the prodromal period. After a violent motor fit there is an increase in the density and acidity of the urine and in the elimination of all the ordinary products of tissue change except chlorides. None of the abnormal constituents of the urine that may appear after a fit do so regularly or constantly. The urine of epileptics has always a greater toxicity than that of the normal individual. This tox-

icity is increased in that period immediately preceding a fit. After a convulsion the urine is hyper-toxic and remains so for more than twenty-four hours. The toxicity is always proportionate to the gravity of the gastro-intestinal disturbance associated with the fits. It is probably the products that have the general reaction of leucomaines. The administration of bromides distinctly diminishes the toxicity of the urine.

Agostini maintains that in a large proportion of epileptics the fits are preceded by marked symptoms of gastric catarrh. In the intervals between the fits the catarrh in most cases disappears, but in many it persists, becoming aggravated about the time of the fits. In those patients who have chronic gastric catarrh the epileptic phenomena are more frequent and more severe. He believes that this chronic or transitory gastric catarrh is accompanied by putrefactive changes in the contents of the stomach and intestines, and the formation of toxic substances which become absorbed, and tend to accumulate in the blood, giving rise to the malaise, headache and furring of the tongue which precedes the occurrence of a fit, and finally determining the convulsion or series of convulsions. He has found that all measures tending to the elimination of such toxic products, or to the prevention of their formation, diminish the frequency of the fits or altogether prevent them. He further believes that the process of oxidation is usually deficient in epileptics. Hence leucomaines absorbed from the intestinal canal are not completely oxidised, as in healthy persons. He also thinks it is probable that in epileptics, on account of the morbid functioning of the nervous system, excretory processes take place with abnormal slowness, so that there is a tendency to the retention in the system of products of reduction that ought to be eliminated. He fully recognizes that idiopathic epilepsy is essentially a cerebral disease and would look upon it as the result of a "polymorphic degenerate state," the most constant and most pathognomonic feature of which is the existence of "somatic and functional asymmetry." He rejects the view of Chaslin and others, according to which epilepsy is due to a special brain schlerosis. But while admitting the existence of a cerebral abnormality that predisposes to epilepsy and often actually determines it, he contends that it is logically and experimentally proved that in many cases the determining cause of the repetition of the fits is auto-intoxication. The irritation occasioned by the toxic agents produces either hyper-excitability of the psycho-motor centres or exhaustion of their inhibitory power, permitting the tumultuous action of the lower automatic centres. These toxic agents need not have epileptigenetic properties. They act simply by increasing the vulnerability of the imperfect and unstable nervous system of the epileptic.

Since auto-intoxication plays so important a part in the production of epileptic fits, Agostini advocates the endeavor as far as possible to remove the factors of such intoxication. In the first place, correct gastro-intestinal catarrh when it is present, and endeavor to remove toxic substances that may have formed in the alimentary tract. As the best means of attaining this object, he recommends repeated washing out of the stomach with salt water, especially when fits are anticipated, and before

the occurrence of a crisis. He also advises the use of purgatives, saline enemas, diuretics (especially lactose) and the abundant administration of milk, along with salol or naphthol as intestinal antiseptics. In the second place, endeavor to increase the activity of processes of oxidation and of normal tissue changes in general. These objects, he thinks, are best secured by the use of small doses of alcohol, careful hygiene, fresh air and moderate muscular exercise. With regard to diet he does not agree with Haig, that epileptics should become vegetarians. He has found that a purely vegetable diet gives even worse results as regards the fits than a purely meat diet, a circumstance which he attributes to the fact that vegetable albumen putrifies more readily than animal albumen. He recommends a milk diet, with plenty of milk. Lastly, we should endeavor to diminish the reflex activity of the cortical nerve centres, which in epileptics are in such unstable equilibrium. He believes that the only really effective drug for this purpose is potassium bromide. He recommends that it should be given in somewhat smaller doses than those generally used, and that it should be combined with salol. Its efficacy is increased by the antitoxic therapeutic measure already mentioned. If gastric catarrh appears, the administration of bromides should be suspended, and the attention directed to the removal of the catarrh.

THE BECHTEREW TREATMENT OF EPILEPSY.—Eight cases of epilepsy treated for a period of six weeks with a mixture of bromide of potassium, codein, and adonis vernalis, are reported by De Cesare (*Rif Med.*, August 13, 1897). The medicine is given twice daily. In four cases there was complete suspension of the fits; in three other cases the fits were replaced by infrequent attacks of vertigo, and in the last case there were four attacks of vertigo and two convulsions. In each case the attacks were very much reduced in frequency; no bad results were observed. The digestion was not impaired, the pulse was fuller, the temperature normal, diuresis increased, sleep uninterrupted and calm, and the mental condition unchanged. The author believes the results were due to the combination of drugs, and not to the bromide alone.—Drs. Thistle and Greig, abstract *Canadian Practitioner.*

[The true test of value is in leaving out the Bromide of Potassium. —ED.]

NERVOUS VOMITING.—Dr. Alfred Meisl (*Centralblatt fur die Gessamte Therapie*, 1897) reviews the diagnostic points, summing up the therapy as follows: 1. For the general neurosis, change in the surroundings, country air, sojourn in an institution, rest, hydrotherapy and general faradization. 2. Diet of solids administered in small quantities. If intolerance is severe, then rectal enemata for a few days. The stomach-tube also may be used, and milk to three ounces inserted several times daily. In mild cases one-sixth of a grain of menthol with a grain and a half of sodium bicarbonate after meals, or suppositories of one-third of a grain of extract of belladonna and half a grain of codeine are useful. If there is hysterical hypersecretion, bismuth preparations with alkalies in large doses are useful. Cold applications, as ice-bag or ether spray, may assist

the action of the drugs. Suggestion is to be made use of, either as to the effect of drugs, or that food which is introduced through the stomach-tube cannot be vomited, or a fast for twenty-four hours may be ordered, and then liquids in teaspoonful doses at short intervals given. After cessation of the vomiting, roborant medication, iron and arsenic, best as arsenical mineral waters, and strengthening feeding are necessary to prevent relapse.—*American Journal of Medical Sciences.*

PERSPIRATION-NEURASTHENIA.—Dr. Peyer (*Med. Times and Hosp. Gaz.*) reports the case of a man thirty years of age who, during the last four years, had perspired profusely during the day, and, during the last month, also in the night. So profuse was the perspiration that he was obliged to change his clothes several times during the night. He had become very emaciated. Many drugs were tried, but without any benefit. As the patient confessed to have masturbated for many years, the diagnosis of sexual neurasthenia was made. He was treated with sounds, and the psychrophore, and after six weeks of this treatment the perspiration ceased and the patient was completely cured.—*Cincinnati Lancet-Clinic.*

PSYCHIC ANESTHESIA.—Dr. Charles W. Burr, of Philadelphia, remarks that, at the November, 1896, meeting of the Philadelphia Neurological Society (*Journal of Nervous and Mental Disease*, May, 1897,) he reported the case of a woman who, suffering from mind blindness, was also unable to recognize objects by touch, though tactile sense was normal. He suggested the name tactile amnesia for the condition, maintaining that it was analogous to amnesic aphasia. At the time the report was made he had seen but one other case, and in both there were other symptoms. Soon after a gentleman came to him complaining of the same trouble, unaccompanied by other symptoms, confined to one arm, and due, as will appear, to an entirely different cause. His history is as follows: B. C., 24 years old, single, family and personal history negative. When about 10 years old he was accidentally struck on the side of the head by an axe-handle with such force as to throw him into a river, on the banks of which he was standing. At first he was thought to have been drowned, but examination of the head showed a simple depressed fracture of the right parietal bone over the motor area. He remained in a state of alternate coma and delirium for about three weeks. On recovering normal consciousness he found himself partially paralyzed on the left side, including the face, and completely anesthetic on the same side. The palsy and anesthesia entirely passed away in a few months, sensation returning before motion. He was supposed to have recovered completely until, on putting his left hand in his coat-pocket for the first time after his illness, he discovered he could not tell what he had in his grasp, though he had the sense of touch. Little attention was paid to this symptom at the time, and he was told it would soon pass away. It has not. Examination:—He is a spare but fairly healthy-looking young man. He is scholarly and thoughtful but neurotic, supersensitive and morbid. The left leg, arm and face are slightly smaller than the right. There is no

palsy of either side, but he uses the left hand a little awkwardly. Gait and station are normal. The knee-jerks are equal and a little exaggerated. There is no depression nor pain on pressure at the seat of the alleged fracture. Pressure on the vertex over an area about as large as a one cent piece causes mental confusion, a condition of dreaminess, and, if continued, light hypnotic sleep. With the eyes shut he recognizes well variations in the positions of the hands or arms. Tactile sense is normal on both sides. On the entire left side, even on the finger-tips, he fails to localize touch. He is absolutely unable to recognize any object put in his left hand, but knows he is grasping something. His grasp is good and remains good when the eyes are shut, there being no muscular relaxation even after several minutes. In the right hand there is no sensory trouble. On both sides temperature and pain sense are normal, and he can distinguish dull from sharp. There is no difficulty with the speech, vision, hearing, taste or smell. The urine is normal. Examination of the thoracic and abdominal viscera is negative.

Dr. W. M. Zimmerman examined the eyes and reports, "Right eye: The media are clear and the fundus is normal. The field is difficult to take, the eye easily wandering in any direction without any apparent reason or object. On the temporal side the red field extends beyond the blue. Left eye: The media are clear and the fundus is normal. Fixation is less difficult. The red field extends beyond the blue in the larger part of the circumference. There is practically no contraction of the field for white in either eye. The fields were taken several times on different days and were constant. The pupils are equal and react well to light and with accommodation."

To sum up, we have a man who for some years, ever since a serious injury to the head causing a temporary hemianesthesia and hemiplegia, has lost the ability to recognize objects by touch in the left hand, though simple tactile sense and the so-called muscle sense are preserved, and who has also a partial reversion of the fields of vision, is neurotic and susceptible to hypnotism.

Simple as the symptomatology of the case is, there is much in it that is at present inexplicable. It contains problems of as much interest to the physiological psychologist as to the neurologist. It differs, and this is of importance, from similar cases in the loss of the ability to localize sensation, and I cannot but believe that this inability stands in close causal relation to our patient's loss of the power of recognizing objects by touch. Touch cognition is in reality a very complex process. To do it accurately, tactile, and sometimes pain and temperature sense, muscle sense and power of localizing must be normal. We have much to learn concerning all these. Muscle sense certainly depends upon the afferent impulses from the joints, the muscles, and though in much less degree, the skin. The means by which we localize a touch on finger or toe, as happening at any one point, the psychologists have not yet settled for us, and how we group the many sensations from an object into one whole is absolutely unknown. In my other case the difficulty lay in interpreting the sensations felt, because of the loss of the stored up tactile images, the patient having in other words no sensory tactile recollections with which

to compare her recent sensations. Hence the name tactile amnesia. But in this present case, as said before, there is another element. The patient cannot localize, and it is easy to understand that if, for example, while holding a key, he cannot tell what fingers the sensations come from or even refers some to the upper arm, he can have no proper conception of the form of the key, cannot tell that is a key. It would seem as if there was here a contradiction in the statements of the patient. If he knows the positions of the fingers and can feel touch, such knowledge should aid him in recognizing the object grasped. Yet he says he cannot. Although at the mercy of his veracity, Dr. Burr believes him. Since the trouble seems to depend in this case upon the loss of the localizing sense, and we have no means of knowing whether he has tactile amnesia or not, it will probably be wiser to call it by the broader and less definite term psychic anesthesia.

What central lesion has caused the symptom and where it is situated cannot be determined. It is most probable that he had a fracture of the parietal bone with slight injury to the motor cortex and the neighboring sensory region. The injury could not have been severe or the hemiplegia and hemianesthesia would not have been so transient and the recovery so complete. But it is not proven that his present trouble depends upon the same lesion. Parietal fracture with hemiplegia and temporary anesthesia is very frequent. Psychic anesthesia is very rare. Dr. Burr is inclined to believe that in this man the condition is hysterical. He is hysterical in temperament, has partial reversal of the visual fields, and is susceptible to hypnotism. Dr. Burr thinks the physical injury has acted to suggest the symptom which in many regards is like the "systematized anesthesia," not infrequent in hysteria. This does not explain very much, but further we cannot go.

SULPHATE OF SODA AS A HEMOSTATIC.—J. Reverdin, of Geneva, states that he has often used with success sulphate of soda in small doses (one and a half grain every hour) in grave capillary hemorrhages, spontaneous or traumatic. The method is said to have been first employed by Kussmaul in hemophilia. Reverdin has made experiments to ascertain the mode of the action of remedy—given to animals (rabbits, guinea-pigs), mixed with their food, or by intravenous injection, it seemed to render more rapid the coagulation of the blood; used hypodermically it had not the same effect.—*Ex.*

FOR VAGINAL INJECTIONS.—

℞ Powdered alum, 1 ounce.
Powdered boric acid, 1 ounce.
Powdered borax, 1 ounce.
Hydrastine sulphate, 9 grains.
Carbolic acid, 20 drops.
Essence of cinnamon, 20 drops.

For each injection, dissolve a teaspoonful of the powder in a pint of water.—*La Semaine Médicale.*

NOSE AND THROAT.

IN CHARGE OF
J. MURRAY McFARLANE, M.D.,
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D. J. GIBB WISHART, B.A., M.D.C.M., L.R.C.P.L.
Professor of Laryngology, etc., Ontario Medical College for Women; Lecturer in Laryngology and Rhinology, Trinity Medical College; Rhinologist and Laryngologist Hospital for Sick Children, St. Michael's Hospital, and the Girl's Home; Toronto General Hospital. 47 Grosvenor Street.

ATROPHIC RHINITIS.

Dr. Krieg is of opinion that the riddle as to the true nature of ozœna has been at last solved by the bacteriological observations of Abel. The observer announced in 1893, without knowing the previous literature of the subject, his discovery of the bacillus mucosus, which he regarded as the specific micro-organism of ozœna. He had studied it in pure cultures, and made clear the distinctions between it and Friedlander's bacillus, with which it had been identified by Thoss and Hajek. In 1895 Abel published further observations on this subject. He named the organism "bacillus mucosus" on account of its forming mucous clumps in pure cultures. He found it to grow best on agar, and that if pure it does not form any stinking product. The bacillus is found most abundantly in the fluid mucus on the under surface of the crusts. This mucus has no smell when first secreted, and contains nearly pure cultures of the bacillus. Abel found this bacillus in a hundred cases which he examined, and in every stage of the disease, whether there was hypertrophy or atrophy, or whether there was fœtor present or not.

Strübing and Abel, who have worked out this subject together, define ozœna as a specific inflammatory affection with crust formation, beginning mostly in the nose, more rarely in the naso-pharynx, and caused by the presence of a specific bacillus, which gives rise to catarrhal symptoms, at first leading to hypertrophy and later to atrophy of the mucus membrane. The atrophy is caused partly through the pressure of the crusts, and partly by the irritation of the poisonous products of the bacilli. The fœtor is not an essential part of the disease, but arises from the action of the ordinary bacteria of decomposition breeding in the crusts. A general dyscrasia is not necessary to the origin of the disease, though it may favor it, and the healthiest of people may be attacked.

Dr. Krieg accepts all the conclusions of Stübing and Abel, and maintains that any theory inconsistent with them must fall to the ground.

One naturally asks, how far has this bacteriological discovery helped our therapeutics? Unfortunately, only very little, or not at all, must be the answer. Almost every germicide has been employed at some time in treating this disease, with the view of destroying the fœtor. Abel has himself made many experiments with this class of remedies, but without much success. The irregularities of the nasal cavities and sinuses, the

sensitiveness of the nasal mucous membrane to irritating substances, and the powers of resistance of the bacillus itself, all make tbe attainment of a cure very difficult.

Dr. Krieg trusts entirely to Gottstein's tampons in treating ozœna, which he introduces into the nose without the help of any instrument, by simply twisting the cotton-wool into a stiff, stout wick of the length and thickness of the forefinger. This wick is smeared with equal parts of white precipitate ointment and vaseline, and then introduced with a screwing movement into the nose. Such a tampon is worn for four hours in each nostril alternately, and is sufficient to keep the nose clean and free of odour without the use of any douching. This line of treatment he has seen result in a complete cure after being carried out for some years.—*Krieg, in Heymann's Handbook of Laryng. & Rhinol., Jr. L. R. & O.*

TURBINECTOMY.

The treatment of enlargement of the inferior turbinals has received a large share of attention, but the views upon the amount which should be removed in cases of nasal stenosis vary widely. R. Lake ("J. of L.," April, 1897, p. 233) advocates the removal of the anterior end of the inferior turbinal as an alternative to turbinectomy. He performs the operation under cocaine by means of a strong pair of artery forceps, punch forceps, scissors, or snare.

Dunnas Grant ("J. of L.," May, 1897, p. 243) also advocates anterior turbinectomy. He makes an oblique incision by means of a strong pair of scissors, upwards and backwards along the attachment of the turbinated body, and removes the peninsula thus formed by means of a cold wire snare. This method of procedure he advises, if only as a preliminary to a subsequent posterior operation ("J. of L.," July, 1897, p. 368).

Delavan ("J. of L.," Aug., 1897, p. 439) advocates the method of submucous incision in certain cases of enlargement of the inferior turbinated body. and claims good results.

At a discussion during the meeting of the British Medical Association in Montreal ("J. of L.," Oct., 1897, p. 616), Greville Macdonald remarked that although it was frequently necessary to remove hypertrophied portions of the mucous membrane from anterior or posterior ends of the inferior turbinal, he had never yet seen a case where one could dream of attaining anything by total ablation of this important structure.

In the discussion which followed the general trend of opinion seemed to be that the duty of the surgeon was to preserve as much of the original structure as possible, removing such portions only as were clearly hypertrophied and giving rise to troublesome symptoms.—*Milligan, Jr. L. R. & O.*

SPHENOIDAL SINUS DISEASE.

The sphenoidal sinus is now known to be comparatively within easy range, and the enlarging of the opening in its anterior wall is in most

cases a matter of comparative ease to the practised intranasal manipulator. The instrument which can be employed for this purpose with the greatest safety is the hook devised by Hajek,* of Vienna, a worker in whom enterprise and caution are very admirably blended. In the use of the instrument I am bound to inculcate the necessity for the latter quality, but with judgment it is capable of producing most satisfactory results.

The frontal sinus cannot be irrigated from within in every case, but the number of cases in which it can is greater than was formerly supposed, and probably with increasing skill on the part of the rhinologist the percentage of eligible cases will be extremely high. Various canulæ have been devised for the purpose of reaching it, but as Hajek very properly states, there is no single curve adapted for all cases. The direction of the passage must be cautiously investigated by means of a pliable probe, and when the shape of probe capable of entering the cavity is found, a tube modeled to the same curve may be introduced for whatever purpose is desired. The removal of all obstructions from the lower extremity of the orifice of the infundubulum is best effected after the removal of the anterior extremity of the middle turbinated body. For this purpose the snare is sometimes all-sufficient, but as a rule the proceeding is greatly facilitated by the use of punch-forceps for making a primary notch in the so-called neck of the body before the application of the snare, as recommended by Grünwald.† This materially facilitates the introduction of the instrument into the infundbulum and frontal sinus, while the removal of the posterior extremity renders the sphenoidal sinus more easily accessible.—*Dundas Grant, Jr. L. R. & O.*

TREATMENT OF LARYNGEAL AFFECTIONS.

In regard to the climatic treatment of laryngeal affections, Dr. Stoerk is largely a sceptic. No physician, he maintains, can say beforehand what special climate will benefit a particular case of laryngeal disease. It is not the air which the patient breathes that does good, but the removal from his usual surroundings and the change in his whole manner of living. That this is so is shown by the conflicting opinions as to the best climate for laryngeal affections. Formerly high altitudes were regarded as unsuitable, but now many recommend them. In tubercular cases it is not the air which does good, but the improvement in the general health. Dr. Stoerk thinks that syphilitic patients subject to frequent catarrhs are much benefited by going south, though they are very liable to recurrences if they come north again.

The position of Prof. Stoerk, as probably the most experienced of laryngologists now living, makes the article of peculiar interest and value to all engaged in the treatment of throat affections.—*Stoerk, in Heymann's Handbook of Laryng. & Rhinol., Jr. L. R. & O.*

* Hajek, verbal communication.

† Grunwald, "Lehre der Nasen-eiterungen," second edit.

THE CULTIVATION OF THE VOICE BY MEANS OF TUBING-FORKS, AND THE APPLICATION OF THIS METHOD TO THE CURE OF PARESIS OF THE VOCAL CORDS.

If a sounding tuning-fork is held in the hand the vibrations may be communicated not only to the fingers, but to the muscles of the upper arm and the shoulder, and in a less degree to the throat, head and chest. A note will, therefore, be more easily sung if at the same time we hold a tuning-fork of corresponding pitch. The vibrations of the vocal cords by the exercise of the will coincide with the vibrations of the tuning-fork, and the tone will be more distinct and less effort will be required in its production. By means of tuning-forks the author succeeded in producing notes which previously he had lacked.

He also experimented on others, especially on those who had never learned to sing. After a little practice with the tuning-fork they were able to produce unaided the same note. In like manner, trained singers learned to produce notes with greater ease and resonance.

The author then tried his method in the following case of hysterical aphonia. A girl, aged fifteen, had been perfectly voiceless for two and a-half years. Massage, hypnotism, and a number of drugs had been tried, and she had been in a hospital for three months, where she was treated with baths and electricity, but without success. All other treatment being suspended, vibrating tuning-forks were placed upon the thyroid cartilage while the patient tried to sing the corresponding notes. One sitting took place daily, lasting twenty minutes, during which a series of tuning-forks, from E to E^2, were used. On the third day sounds were produced for the first time; henceforward only one tuning-fork was employed. On the eighth day the tones were more distinct, and the patient could say some words. On the following morning she was again aphonic, but under the action of the tuning-fork the voice soon returned and was stronger. She was able to read next day, and since then there has been no aphonia. While the above treatment was being carried out a daily laryngoscopic examination was made. During the first few days the right vocal cord gradually began to move and to approach the middle line. After the fifth sitting the left cord also moved. In a moment the cords met. The girl is still unable to raise or lower her voice, and speaks in the tone of the tuning-fork with which she last practised.

The author attributes these results to the mechanical action of the tuning-forks on the vocal cords. A possible physical effect cannot, of course, be denied.—*(Maljutin, E. N., Moscow, "Archiv für Laryngol. und Rhinol.," Band VI., Heft 2).—A. B. Kelly, Jr., L. R. & O.*

ORTHOFORM.

The authors have experimented with *orthoform* in cases which had dysphagia as a prominent symptom, notably laryngeal tuberculosis and laryngeal cancer, and likewise after removal of the tonsils by means of the galvano-cautery snare. This drug is a light, dirty yellow

powder, slightly soluble in water, is easily dissolved in glycerine or water acidulated with hydrochloric, nitric, or acetic acid. It is feebly antiseptic, and perfectly harmless. And what is of the greatest importance, it gives immunity from pain for from twenty-four to forty-eight hours, the latter time being obtained more easily at subsequent as contrasted with primary applications. The reason of the long duration of anæsthesia appears to be its insolubility in the juices of the body. From this one learns that where there is any constant movement of or passage over the part frequent applications are usually required.—*(Lichtwitz and Sabrazes, "Le Bull. Méd.," Nov. 21, 1897).—R. Lake, Jr., L. R. & O.*

METHOD OF PREVENTING DIMMING OF LARYNGEAL MIRRORS.

The author objects to the soap method on the score of sepsis, and finds that an equally good result is obtained by using merely a wet mirror. The essential point is to remove all traces of grease from the glass with a one per cent. solution of bicarbonate of soda. When this has been done, by simply rinsing or rubbing with wool soaked in the solution, a thin uniform film of fluid will adhere to the surface. A mirror so treated remains bright during a continuous examination of the larynx lasting five minutes. Although he keeps his instruments standing in one or two per thousand cyanide of mercury solution, he finds that mirrors treated in this way last very much longer than when heat is employed.—*(Vacher, "Ann. des Mal, de l'Oreille," etc., Sept., 1897).—Ernest Waggett, Jr., L. R. & O.*

For Eczema, Impetigo, etc.—

℞ Glycerin paste, 30 parts.
Tar (purified), 2 parts.

Add hot starch in powder sufficient to make a pomade.

This tonic calms the itching, dries the excoriations, resolves the redness—in a word, it is astringent and restorative without producing irritation.—M. Gibert (Paris).

For Chronic Ulcer of the Leg :

℞	Carbolic Acid	2 parts
	Boric Acid	10 "
	Powdered Camphor	7½ "
	Ichthyol	20 "
	Oil of Sweet Almonds	9½ "
	Oxide of Zinc Ointment	100 "

—*Rev. de Therapeutique.*

For Asthma with Emphysema.—

℞	Potassii iodidi	gr. v.
	Liquor, potass. arsenitis	*m* iiss.
	Elixir, simplicis	q.s. ad ℥ i.

S. One drachm after meals and at bedtime. Increase the dose if necessary.—J. C. Wilson, *Coll. and Clin. Rec.*

MEDICAL SOCIETY REPORTS.

TORONTO CLINICAL SOCIETY.

The regular meeting of the Society was held on the 10th of March in St. George's Hall.

Dr. Albert A. Macdonald, President, occupied the chair.

There were present the following Fellows: W. H. B. Aikens, G. S. Ryerson, Allan Baines, J. A. Temple, Edmund E. King, Albert A. Macdonald, Harold Parsons, Herbert Bruce, Elliot Brown, George A. Peters, Bertram Spencer, Alton Garratt, George Bingham, Geoffrey Boyd, Charles Trow.

The minutes of the last meeting were read and adopted.

Syndactylism.—Dr. W. H. B. Aikens presented a case showing the above condition in a man aged 32. The fingers involved were the ring and middle of each hand. The patient had a cousin with a similar deformity.

Dr. George A. Peters presented a patient who had recovered from a compound fracture of the skull with loss of brain substance, with the following history: H. McH., æt. 8 years, was admitted to hospital Sept., 1897, with a history of having been injured through being knocked down by a running horse. He reached the hospital 2 hours after the accident. On examination a wound about ½ in. long was found on the right side of the head. Its exact situation was ½ in. from the middle line and ½ in. in front of a line dropped vertically through the external auditory meatus.

Brain substance could be seen oozing from the wound, and pulsation could be detected; a deep depression in the vault of the cranium could be felt subtending the wound. He was conscious but somewhat somnolent, only rousing on being spoken to sharply or loudly. So far as could be learned, he had never completely lost consciousness. There was complete paralysis of the left arm. The left leg and face retained power of movement.

The diagnosis of compound depressed fracture of the motor area having been made, preparations were made to raise the depressed bone. Guarding the actual wound with a compress soaked in 1-20 a ac. carbolic, the whole scalp was shaved and disinfected in the usual way.

Operation.—A crescentic incision, convexity upwards, with a radius of ½ in., was made so as to include the wound, and the scalp over the whole of the depressed area was raised.

The depression was found to be oval in shape and about 1½ in. in its longest diameter. It was outlined at its margin almost all around by a fissured fracture of the outer table, and from this fissure numerous lines radiated to the centre, which was about ½ in. below the general surface of the skull. There was a small amount of brain substance oozing from the centre of the depression. One of the small triangular pieces of bone was removed, and through the opening this produced the remaining fragments were sprung back to their normal level. The fragment first removed was then replaced. The whole wound was then closed by horse-

hair sutures, a small drain of iodoform gauze being placed in the original wound.

The temperature the next morning rose to 102⅕ and pulse to 124. By night the register was 101⅘ and 114. Next morning 99 and 94. The subsequent history showed rapid recovery. The wound healed throughout by first intention, but the paralysis of the arm was recovered from very slowly. In about one month, however, all the motions were recovered except extension of the wrist and of thumb and fingers, and these motions are still imperfect, though gaining slowly.

The flexors of the hand are also weak. At present he is able to extend the wrist while the fingers are flexed, or to extend the fingers while the wrist remains flexed: but not to perform both movements at once. The reason for this apparently is that the extensors are incapable of successfully overcoming the tonic contractions of the flexors, while the latter are put upon the stretch by extending both the wrist and fingers.

The treatment has consisted in exercises, in voluntary movements, massage, electricity, and the functions are still slowly improving.

It is evident that the portion of the cortex that was destroyed is the area which normally presses over the movements of extension of the wrist and fingers. Horsley and others have shown that while there are certain well-defined areas which control certain movements, there are frequently outlying areas which seem to have a subsidiary influence, and may become functionally in the event of destruction of the main centres. In this case it is to be hoped that these subsidiary centres may prove adequate to the performance of the duties thrust upon them by the destruction of the main centre. This patient has youth in his favor, and it is certain that the powers of adaptability are greater in immature than in fully matured brains. In the meantime, it is important to maintain the nutrition of the nerves and muscles by electricity and massage.

It was Hippocrates who said that no injury of the head is too trivial to be despised or too serious to be despaired of. Injuries to the brain produced by heavy blows or falls upon a broad surface are apt to be productive of a certain amount of bruising and laceration at the seat of injury, together with a greater amount of injury of the cortex at a point diametrically opposite. The explanation is that the blow starts a wave in the semi-fluid brain tissue which breaks violently against the bone opposite, thus producing a bruising and laceration of the cortex at that point, with more or less bleeding. Between these two points there may be also traced a track of bruised brain tissue with minute punctiform hæmorrhages and molecular injury.

On the other hand, injuries to the brain produced by monetary impact of an injuring agent of small area is much less likely to start such a wave, and, consequently, the injuries produced by sudden, violent blows, are usually limited to laceration of the brain substance immediately beneath the part of the skull struck. Thus, non-penetrating or glancing bullet wounds are said to produce the most typical localized cortical lesions. The case just cited is evidently one of localized injury, though we do not know exactly what the nature of the fracturing force was—probably the cork of a horse's shoe.

In regard to prognosis, it must not be forgotten that in an injury of this kind there occurs during the process of repair a soldering of the various membranes together. The dure also becomes densely adherent to the skull, and thus there is an anchoring of the brain at that part, which, in later years, may be productive of headache, epileptiform convulsions, or attacks of giddinesss on sudden movement.

Dr. Peters presented a second patient upon whom he had performed a plastic operation to relieve cicatricial fixation of the thumb in flexion. The following was the history of the case:

The thumb in this case was bound down by a very dense and deep cicatrix resulting from a deep suppurating wound in the thenar eminence. The short flexor muscles seemed to have sloughed away, and the skin was firmly bound down to the metacarpal bone and the annular ligament. The thumb was drawn inwards so that it lay across the middle of the palm, its tip pointing toward the little finger.

In the operation the cicatrix was divided freely; also the outer part of the contracted annular ligament. The anterior and lateral ligaments of the meta-carpo-phalangyeal joint were also divided, as well as the remains of the short muscles of the thumb. The long flexor tendon was left undivided, but was dissected out of the cicatrix so that it moved freely.

The wound thus made on the palmar aspect of the thumb was filled in by dissecting up a flap from the dorsum. This flap was one and a half inches long, by three-quarters of an inch wide, and its base was adjacent to the wound in the palm. Care was taken to maintain a good thickness to this flap, so as to insure its vitality. Having been very freely dissected up, the flap was swung from the back to the front of the thumb and stitched into place by horsehair sutures.

The wound on the back was closed in the same way, after very freely undermining its edges in all directions.

The wound was not dressed for six days and was found to have healed throughout by first intention.

Dr. George A. Bingham showed a boy under his care who had suffered from compound fracture of the superior and inferior maxillæ, the base of the skull, with extensive injury of the soft parts.

In a brief description of the case, Dr. Bingham said:

I present this case more as a curiosity than anything else. Some time in December this boy was riding a bicycle at a rapid rate along the devil-strip with his head down. He came in contact with a butcher cart which was being driven at a rapid rate from the opposite direction, the shaft struck him in the face, crushing his nose and his eye out of sight, passing through the orbit, fracturing the superior maxillæ, fracturing the inferior maxillæ, fracturing the base of the skull, and carrying away a portion of the facial nerve. Dr. R. J. Wilson was called and at his request I operated on the patient the night of the injury. We first built up a nose, then brought the eye into position, adjusted the orbit and the fractured superior maxillæ and hard palate, stitching the soft parts over the hard palate, put the jaw in a splint, and got him in a fair condition. He was vomiting blood freely. Those who saw him thought there was no hope

for him, but the subsequent history shows that it is hard to kill a boy these days.

Occasionally now a small portion of bone comes from the right ear. Owing to the damage done to the facial nerve on the right side the function of the muscles on that side is gone and gives the face the appearance it has. The vision of the injured eye now is very good.

Dr. Bingham presented a second patient, with the following history:

The patient, a little girl, on Jan. 23rd, 1896, fell while playing and scratched the skin over the right patella. On the same day it got its feet wet. The wound was not attended to. Five days after Dr. Powell was called in; he noted a flushed area below the patella on the upper end of the tibia, which was very tender. He considered the case one of osteomyelitis, and sent her to the hospital under the care of the speaker. On the 29th he (Dr. Bingham) trephined into the epiphysis of the tibia and found a pus cavity, which he scraped out. Healing took place readily. Three days after the patient began to complain of pain in the lower epiphysis of the right humerus. Incision was made and drainage, healing following. The next point attacked was the upper epiphysis of the same bone. Similar operation was done. The next bone attacked was the right tibia, at its lower end. Since that time until now (about two years) the patient has returned periodically to the hospital for treatment, undergone operation on some bone and recovered. On one occasion a considerable portion of the right clavicle was removed; at another the scapula on one side. Few of the long bones had escaped. A considerable portion of two ribs had been removed. The speaker thought that the disease would be sure to reappear. The patient had been put on tonic treatment, and she had the best hygienic care. The last bone affected was one of the ribs on the left side. The wound of this operation was not yet quite healed.

Dr. A. H. Garratt then reported a case, the salient points of which were as follows:

On January 10th, 1898, at 6 p.m., I was called to York Street to see a case of pistol shot wounds of the abdomen in a woman thirty years of age. Upon my arrival I found that a quarter of an hour before the patient had been shot in two places with a thirty-two calibre revolver. The pistol had been discharged first from a distance of one foot, and the bullet had struck one inch to the right of the median line and three inches above Pupart's ligament. This bullet followed a subcutaneous course, and was afterwards removed near the inferior iliac spine, five and a half inches from the point of entrance. The second bullet struck two inches to the right of the median line, and three inches above the umbilicus, and had been discharged from a distance of nine feet.

The patient complained of little pain, but was very much excited, having climbed an eight-foot fence, wrested the pistol from her husband and would-be murderer, and shot a strange man in the thigh who tried to stop her on the street. I made a hurried examination, demonstrating with a probe that one bullet did not produce both wounds, and had the patient sent to St. Michael's hospital under my care.

I visited my patient again at 8 p.m., and found her lying on her back,

with knees drawn up and suffering great pain all over the abdomen, although the house surgeon had given an eighth of a grain of morphine before my arrival. The pulse was 110 and the temperature 100°. The abdomen was markedly distended and the face anxious. I decided on laparotomy at once, and ordered one-quarter of a grain more of morphine while the preparations were being made. It was more than an hour before the patient was prepared and my assistants ready. Dr. J. N. E. Brown administered ether: and during the first stage of anæsthesia the patient vomited a pint of blood clots and food. I made my incision 4 in. in length in the median line above the umbilicus and over the track made by the second bullet, through which the probe had passed.

On opening the peritoneum there was a sudden escape of gas, leading Dr. Bingham, who assisted me, to suspect that my knife had wounded a knuckle of intestine. On careful search this was disproven.

The transverse colon was pushed down and the stomach brought up in the wound, and after a short search a perforation of its anterior wall was found; this I closed with 9 Lembert sutures of fine silk and continued the search for a wound of exit. After going carefully over the stomach and neighboring organs, and finding no other wound, the peritoneum, in easy reach, was cleansed with sponges wrung out of hot sterilized water and the abdominal wound closed with deep silk-worm gut sutures including all the tissues. A strip of iodoform gauze was passed down the bullet track and brought out between the sutures. Iodoform was dusted over line of wound, and iodoform gauze, sterilized gauze and cotton wool completed the dressing, which was held in place with a cotton binder.

The first bullet near the iliac spine was now removed through a small incision and its track lightly packed with a narrow strip of iodoform gauze. I then ordered a search to be made in the vomited matter for the second bullet, but unfortunately it could not be found, and I am still in doubt as to its whereabouts.

Patient recovered from anæsthetic nicely but complained of a little pain all over abdomen.

The next day, Jan. 11th, was given nothing but hot water, in 3 doses, per mouth; had several attacks of vomiting.

On following day, Jan. 12th, was given an ounce of beef tea per mouth, and the mouth was frequently washed out with ice water; feeding by nutrient enemia was commenced, and there was no more vomiting. Patient still complained of tenderness over the abdomen.

The dressing was changed and shorter pieces of gauze inserted in bullet tracks.

From the 12th until the 16th patient was fed on nutrient enems and steadily improved.

On the 16th feeding by the mouth was commenced and continued without ill effect.

On the 31st the stitches were removed and the wound was perfectly healed; the bullet tracks were also healed. Patient was allowed to sit up on Feb. 6th, and was placed on the regular hospital diet. This operation was not undertaken until symptoms indicating perforation of stomach or intestine showed themselves, thereby disproving the assertion of Dr.

Parke, of Scranton, Pa., in the *New York Medical Journal* of Jan. 15th, that at such time the operation was always too late.

Dr. George Peters said he was not certain whether or not one should not in these cases, when the history showed pretty clearly that the bullet was fired at close range, explore the wounds at once without waiting for symptoms. If the bullet were fired in a fairly direct way it would be almost sure to go through the abdominal wall. The risk of an exploratory incision was not great.

Dr. King pointed out that it was lucky that the bullet had entered the stomach instead of lower down, for the contents of that viscus had, no doubt, contributed to the stoppage of the course of the bullet.

Dr. Ryerson rose to say that he had visited many of the leading hospitals of Europe and the United States, and nowhere had he seen better surgery than in Toronto.

Dr. Temple made some remarks on a case of carcinoma uteri. The patient was a woman who had entered the pavilion at the General Hospital under his care. Her age was only twenty-eight, and she was the mother of four children. She was greatly emaciated. On examination he recognized a cancer of the body of the uterus, and the disease so far advanced that he could not offer the slightest hope by operation. The disease had involved the uterus and had caused hydro-nephrosis.

Dr. Harold Parsons read the post-mortem report made by Dr. H. B. Anderson, as follows:

Mrs. M., aged 28. General emaciation. Subcutaneous fat scanty. Fundus uteri three inches above the symphisis pubis. The thoracic and abdominal viscera were all examined, but presented nothing special of note except as follows: Right ureter was three-quarters inches in diameter, being immensely distended with fluid. Right kidney was very pale in color. Weight, six and a quarter ounces, and showed marked hydronephrosis. The opening of the ureter into the bladder was involved in the cancerous growth. Left ureter slightly enlarged. Left kidney pale and showed a lesser degree of hydronephrosis. Weight, four ounces. The ulcerating cancerous mass involved the whole body of the uterus. The cervis was entirely destroyed The growth involves the whole of the bladder, ulcerating through in the median line, producing a utero-vesical fistula. The orifice of both ureters was involved in the growth. Below it extends into the upper part of the vagina, and behind into the adjacent parts of the rectum. (Bladder was cut through from in front.)

Microscopic sections of the growth which I submit show the structure of a glandular cancer, adeno-carcinoma. The cancer evidently originated from the glandular epithelium, but whether those of the cervix or body of the uterus the microscopic examination would not determine.

Dr. Peters presented two astragali he had removed from a case of double club-foot upon which he had operated. He described the various incisions recommended for the operation.

Dr. G. S. Ryerson and Dr. B. Spencer were appointed a committee to act with committees from other societies in the consideration of the proposed Academy of Medicine.

The Society then adjourned.

TORONTO MEDICAL SOCIETY.

The regular meeting was held on Feb. 17th, 1898.

Dr. Peters reported a case of gun-shot wound of the femur

Dr. A. Primose reported a case of amputation for extensive cellulitis of the leg in a patient who had Bright's disease; a second case of lithotomy for a calculus whose nucleus was the tip of a catheter which a prostatic had glued on with shellac; a third case—amputation of the leg for tubercular disease of the tarsus and bones of the leg in a man suffering from pulmonary tuberculosis.

Discussion by Drs. Wilson and MacMahon.

Dr. B. E. McKenzie presented a boy with congenital absence of a portion of the third, fourth and fifth ribs.

Discussed by Drs. Primose, Carveth, Peters and Cameron.

The Radical Cure of Ingrowing Toe-nail was the title of a paper presented by Dr. G. A. Peters.

Discussed by Drs. Powell, Oakley, Carveth, MacMahon, and Galloway.

The Society then adjourned.

The weekly meeting of the Society was held in the Council chamber Feb. 24th, 1898.

Dr. MacMahon presided.

After the minutes, Dr. McKeown presented photograph of a boy, aged 16, with some congental deformities. The arms were rudimentary-conical stumps. The right femur was represented merely by a ball of bone, and the left was much shorter than normal.

Dr. Gilbert Gordon discussed the case.

Dr. T. MacMahon reported a case of gall-stones followed by suppurative cholangitis.

Dr. Dwyer reported the post-mortem findings.

Dr. Dwyer presented the following specimens: A small carcinoma of the stomach from a patient who had died of pneumonia; a trachea with a tuberculous ulcer; a larynx showing syphilitic and tuberculous ulceration.

Dr. MacMahon's case was reported by Dr. Parsons, Dr. G. Gordon, and Dr. McKeown.

Dr. G. H. Carveth read a paper on Some Observations on Examination of Urine. Dr. Oakley discussed the paper.

Dr. D. J. Gibb Wishart gave an address on Deviations and Spurs of the Septum. Discussed by Drs. Parsons, Wm. Graham, Oakley, Starr, and G. Gordon.

MENTHOL IN VOMITING.—*The Journal des Praticiens* advises the following for obstinate vomiting.

Menthol	2 grains
Hydrochl. of cocain	4 grains
Alcohol	2 ounces
Syrup	1 ounce

Sig.—Small teaspoonful every half-hour for several doses.—*Therapeutic Gazette.*

A Remedy in Nervous Disorders when Characterized by Melancholia. —Mode of Exhibition.—

The "Reference Book of Practical Therapeutics," by Frank P. Foster, M. D., Editor of *The New York Medical Journal*, which has recently been issued by D. Appleton Co., of New York City, contains an article of which the following is an excerpt, which we feel expresses the consensus of medical opinion as adduced by actual results: "Antikamnia is an American preparation that has come into extensive use as an analgetic and antipyretic. It is a white, crystalline, odorless powder, having a slightly aromatic taste, soluble in hot water, almost insoluble in cold water, but more fully soluble in alcohol.

* * * * * *

"As an antipyretic it acts rather more slowly than antipyrine or acetanilide, but efficiently, and it has the advantage of being free, or almost free from any depressing effect on the heart. Some observers even think that it exerts a sustaining action on the circulation. As an analgetic it is characterized by promptness of action and freedom from the disagreeable effects of the narcotics. It has been much used, and with very favorable results in neuralgia, influenza and various nervous disorders characterized by melancholia. The dose of antikamnia is from three to ten grains, and it is most conveniently given in the form of tablets."

We may add, that the best vehicles, in our experience, for the exhibition of antikamnia are Simple Elixir, Adjuvant Elixir or Aromatic Elixir, as also brandy, wine or whiskey. It can also be readily given in cachets or capsules, but preferably tablets, as well as dry on the tongue in powder form, followed by a swallow of water. When dispensed in cachets or capsules it should be put into them dry. Antikamnia tablets should be crushed when very prompt effect is desired and patients should always be so instructed. The conditions of the stomach frequently present unfavorable solvent influences and they can be thus overcome.

—*Notes New Pharm. Products.*

In Pneumonia where there is Restlessness.

℞ Antikamnia (Genuine)..... 3 ij
Tinct. Digitalis..... 3 iss
Syrup Doveri..... 3 iij
Mx. Sig.:—Teaspoonful every 3 to 6 hours.

In Painful Dysmenorrhœa.

℞ Antikamnia (Genuine)..... 3 j
Brom. Potass..... 3 ij
Elix. Aurantii..... 3 ij
Mx. Sig.:—One or two teaspoonfuls every hour in water.—*Dunglison's Clinical Record.*

The Canada Lancet

A Monthly Journal of Medical and Surgical Science, Criticism and News.

Editorial.

CHRISTIAN SCIENCE WINS.

According to a despatch from Albany, N.Y., to the *Mail and Empire* of Friday, the 18th, Senator Henry J. Coggeshall was the centre of attraction for fully 500 women interested in Christian Science, and the occasion was a hearing before the Committee on Public Health on a bill introduced by the senator, prohibiting any one not licenced as a physician from practising the healing art in New York.

Speeches against the bill and praising the methods of Christian Science were numerous, amid the cries and groans of hysterical women present to give testimony of cures made to their personal knowledge by means of prayer on the part of the Scientists.

So great was the demonstration that the senator, "in one of the graceful and amiable speeches for which he is noted," as the paper naively puts it, agreed that the bill should be so amended as not to include those desirous of practising Christian Science.

Political expediency must be the only excuse for such a deplorable setback to the efforts of modern civilization to raise the standard of medicine, and goes to show that matters pertaining to medical practice should not be left in the hands of the laity, who are perfectly willing, if the New York State Senate is any criterion, to legalise witchcraft professors and voodoo doctors next.

Occurring as it has done in the banner state of the Union, the effect must of a necessity be of a very injurious nature to medicine throughout the United States, setting as it does a precedent for legislative bodies only too desirous of furthering their own ends by pandering to ignorant and pretentious sects. The cloak of religion, like that of charity, covering a multitude of sins, what ignorant egotists these so-called Christian Scientists are, to think that an Almighty infinite Deity would give personal attention to their ailments, brought about in the majority of cases by some infraction of His natural laws, which have existed from the commencement of all things!

It is a pity that they cannot see that these laws of Nature govern all things of a mundane nature; that every effect is the result of some primary cause, however remote, acting through a chain of events having a bearing or relationship to one another.

They, however, choose to ignore these scientific truths, and call upon God to perform miracles on their behalf at so much a miracle with the familiar flippancy of a Salvation Army recruit.

We in Ontario must not be too ready to throw stones, for we ourselves are truly living in glass houses, and it would scarcely be a matter of surprise if the Ontario Government succumbed to an attack of a similar nature made upon it in the name of Christ by some mob of imperfectly sexed vixens and hysterical sufferers from unsatisfied desires, it having in the past shown clearly an animosity whenever any bill has been introduced protecting the medical profession of the Province. The fact is, one often wonders what protection exists. On every hand we find nurses conducting an obstetrical practice, Munyon and the Viavi Co. doing gynecology; doctors of refraction in jewellery shops doing the work of the oculist; and with the sanction of a legislative body that requires a long and costly course of study on the part of those desirous of practising scientific medicine.

Hospital and Dispensary clinics with Government grants, debased by patients accepting charity from medical men sometimes poorer than themselves, poorer on account of their own slothfulness and inertia that seems to paralyse any efforts made to bind them together, to assist the aggression of the general public, or to endeavor to remove the great evils handicapping them in the struggle for existence, one of the worst of which is Lodge or contract work, which is so degrading and entirely unbusinesslike that it is perhaps not so much wonder after all that the members of parliamentary bodies consider men so lost to reason, unworthy of being considered seriously. Let the medical men awaken, remove the beams from their own sleepy eyes, and, seeing clearly the humiliating position they occupy, they will be able more consistently to remove the motes from the eyes of the laity. The Canadian practitioner, however, can extend his

sympathy to his brother of New York State, for he too knows of the evils attendant upon the efforts of the Christian Scientists to arrogate to themselves powers of a supernatural order in his own country.

From time to time the press and police courts testify to some sad case where an innocent life has been taken by what we might term "murder by omission," and nineteenth century fetich worshippers offer up their victims to the insensate Juggernaut of intolerance and superstition.

M. M.

CHLOROFORM AS AN ANÆSTHETIC.

No thoughtful or well-educated man rver gives an anæsthetic without a grave sense of the responsibility of his position. Indeed, in the majority of cases, we believe the anæsthetist has the worst of it; the surgeon having much less cause for anxiety during the operation, at least, than he who wields the inhaler.

There has been a very great amount of time, thought, and money spent in the endeavor to ascertain the true cause of death when it occurs from the exhibition of chloroform as an anæsthetic. One Camp whose originator was Lynn, held that death came from the failure of respiration, and that whoever gave the drug intelligently watched that function; another School, having as adherents many able and noted men, believed that the whole danger lay in cardiac failure, and that that was the function to be looked to.

Everyone remembers the commission appointed by the Nizam for the scientific study of the subject, and the contradictory conclusions reached by them. More recently Dr. H. A. Hare of Philadelphia, and Drs. Gaskell and Shire of Cambridge, have pursued the subject, and from a paper by Hare, read last January before the College of Physicians of Philadelphia, it appears there is still a wide divergence of opinion as to the cause of death. Gaskell and Shire hold that anæsthesia can be produced by chloroform, without causing a marked fall of blood pressure, and that when there is a fall it is due to cardiac failure.

Hare, on the other hand, believes that the fall of blood pressure in chloroform anæsthesia is "extraordinary," and that it is due, not to cardiac enfeeblement, but to depression of the vaso-motor system, by which the patient is bled into his own vessels. He believes that there is some cardiac weakness, and dilatation produced which add to the fall of pressure, but that it is to the paralysis of the vaso-motor system that we must look for by far the most important cause of death.

He makes the startling statement that death does not come directly either from cardiac or respiratory paralysis by the drug, but *from the want of sufficient blood* to be sent to the respiratory centres and to the heart.

Dr. Hare does not deny that chloroform is a powerful depressant poison to both the respiratory centre and the heart, as it is a poison to all protoplasm when applied in excess. But he believes that when properly given by inhalation it produces a death like that resulting from hemorrhage, in which respiration fails through the starvation of the centre

from want of blood, and that failure of the pulse results from vaso-motor paralysis, the patient becoming pulseless because the heart has no blood to pump, that fluid having stagnated in the widely-dilated vessels.

If it be certain that the drug produces such widespread paralysis of the vessels as Dr. Hare believes it does, then his explanation is the most reasonable and scientific that we have yet seen offered; for it is known that the relaxed veins together with the capillaries of the body will hold many times the whole normal quantity of blood.

Laboratory evidence seems generally to uphold this doctrine, and clinically we have certainly for years acted as if it were true.

The most certain and generally used method of resuscitation is inversion of the patient together with artificial respiration, which simple means has saved many lives.

It simply means that gravitation and pressure are called into play to force the stagnated blood out of dilated abdominal and other vessels into the heart, giving the heart something to work on, and thus overcoming the anæmia of the respiratory centre as well as that of the heart itself.

Following these remarks, Dr. Hare concludes "that while chloroform in its general depressing power depresses all vital functions, it is the question of blood pressure which is most important, and, therefore, in the use of chloroform we should always *keep the head low, precede the use of chloroform by atropine hypodermatically, bandage the limbs if the case is feeble or already bloodless, and if necessary place compresses on the belly and apply them deeply by pressure if a failing circulation is developed.*"

We may add that we were much impressed by a recent article by Shepherd of Montreal, who advocates, and gives scientific reasons for his advocacy, the use of equal parts by weight of ether and chloroform. Since reading his article we have used nothing else, and have been much pleased with the combination.

PATIENTS IN PRIVATE WARDS IN HOSPITALS.

The superior advantages of hospital treatment are recognized not only by members of the profession, but by patients and their friends, mainly in consequence of the excellent nursing and appliances to be obtained in the private and semi-private wards. Members of the profession not recognized on the regular staff of the several hospitals are enabled to send in and attend any patient they choose within the private wards, which range from $10 to $12 per week, or in semi-private, from $6 to $7 per week. Many persons in medium circumstances are not able to obtain the required nurses and attention at their own homes on account of the expense, and in hotels and boarding-houses it is impossible to have surgical or medical treatment carried on properly. By the time the patient's board is paid for, the nurse's board and salary, and other extras for food and attendance, but little is left for the medical attendant, whose account is uusually left to the last, or perhaps never paid. On enquiry, we find that the opening of the private and semi-private wards,

both at the Toronto General and other hospitals in Ontario and in Toronto, has proved most satisfactory to all concerned, and treatment of patients by their own family physician or surgeon, in these wards, is becoming very popular. The medical attendants themselves are brought into closer touch with hospital work, and are often enabled to be present at interesting operations, whereas if they had not special cases of their own their visits to the hospital might be few and far between. They also have the advantages of having their patients properly prepared for operations, and of having the use of all surgical appliances and instruments. We congratulate the Trustees of the General Hospital on the continued success which has been achieved in opening these private wards to the medical men of Toronto. During the last few years the number of patients attended in private wards by physicians of their own choice has largely increased. It must be remembered that no Government grant is allowed for patients in private or semi-private wards in the Toronto General Hospital, so that the fees have been made as reasonable as possible considering the amount of nursing and attendance obtained.

VICTORIAN ORDER OF NURSES.

The daily papers of Toronto have not forgotten to announce the fact that the new order of "cheap" nurses has been launched in Toronto, and that telephone No. — will secure the services of a district nurse at any hour of the day or night. Lowest charge for visit five cents, maximum charge for visit fifty cents. How would it do for the regular trained nurses to have a changeable tariff also, in order to compete with this unknown quantity so recently brought in against their vocation? A "district nurse" is well paid, housed and fed and clothed, whereas a regular nurse has to obtain work, and then get money enough to house, feed and clothe herself.

Would it not be well for our nurses to think over a plan by which they could arrange to pay visits and collect fees for each and every service? If a nurse had a visiting list of six patients a day at twenty-five cents, her income would be $1.50; if at fifty cents a visit, $3 would be her pay. Surely the ill-advised progenitors of this gigantic scheme of "*free nursing*" should have endeavored to protect, in some little way, the rights of those young women who have spent their time and brains in obtaining a profession by means of which an honest living might be made. The nurses here had not even the satisfaction of seeing a Canadian-trained nurse made superintendent of the Toronto branch, "a Bellevue nurse having been selected."

The sending of these young women to the "gold fields" is a question to be carefully considered, both from a moral and professional standpoint. *The Montreal Medical Journal* speaks plainly, and denounces the new scheme in no uncertain language. It seems strange that the voice of the profession and the advice of the medical journals and the opinions and resolutions of the medical societies of the Dominion from Halifax to Vancouver should be so totally ignored by the powers that be at Ottawa.

TRINITY MEDICAL ALUMNI ASSOCIATION.

The next meeting of the above Association will be held in the Educational Department, (Normal School) Gould Street, on Wednesday, April 6th, and will consist of Morning and Afternoon Sessions, when the following programme will be carried out:—10.15 a.m., Routine Business, Reading of Reports, Election of Officers, etc; 10 45, Reading of Thesis granted first place in the Medal competition; 11.00, Some Surgical Affections of the Rectum, Dr. F. LeM. Grasett; 12 00, Adjournment for Luncheon; 2.00 p.m., Some points in Abdominal Surgery relating to Intestinal Obstruction, Dr. Henry Howitt, Guelph; 2 45, The care and Modification of Milk for Infants, Dr. Leroy Milton Yale, New York; 3.30, On the nature of those Joint Affections usually called Chronic Rheumatism, Dr. Charles G. Stockton, Buffalo, N.Y.

General Discussion will follow the reading of each paper. Convocation for the conferring of degrees in Medicine will take place at Trinity University at 5 p.m. The Annual Banquet will be held at the Rossin House, at 8.30 p.m., to be followed by the President's Address, Music and Speeches. The Association Gold Medal will also be presented to the successful candidate.

Tickets for the Banquet may be obtained from any officer of the Association.

The Secretary would be pleased to receive the present addresses of as many of the Alumni as possible, also changes of address, or other items of interest.

HAROLD C. PARSONS, SEC'Y.,
97 Bloor Street West.

THE ONTARIO MEDICAL ASSOCIATION.

The next meeting of this vigorous and flourishing Society will be held at Toronto, June 1st and 2nd, under the presidency of Dr. Britton. The outlook is for a good meeting, and it is to be hoped all members will make arrangements to be present, and, so far as practicable, join in the proceedings, either by sending papers or taking part in the discussions which follow.

We are inclined to think that heretofore such work has been too much relegated to the few. Ontario medical men are, as a body, modest, which speaks well for their education, but we are sure that each member of this Association can add his quota to the practical interest and ability of the meeting.

THE AMERICAN MEDICAL ASSOCIATION.

The next meeting of this Association will be held at Denver, June 7th to 10th, 1898.

The committee expects to obtain a one-half rate, and 30-day limit on roads west of Chicago, and a reduction on eastern roads.

PERSONAL.

Dr. Meyers has gone to Philadelphia to take a course with Weir Mitchell at the Nervous Clinic.

EDITORIAL NOTES AND CLIPPINGS.

PRIAPISM.—Priapism in infants and children is induced by reflex action in cases of long, tight, adherent prepuce, of stone in the bladder or prostatic urethra, and of worms in the rectum:

In adult subjects, symptomatic of stone in the bladder, stone in the prostatic urethra, stricture, cystitis, and observed during retention; in these cases the uneasy or painful sensation is felt in the glans penis, while the body of the organ usually is only moderately congested and sometimes curved downward or laterally.—This condition disappears upon the removal of the cause:

Priapism symptomatic of gonorrhœa, with perhaps involvement of the corpus spongiosum and downward curvature.—This condition is painful and transitory, and may occur several times during the night; in cases of downward curvature of the penis due to inflammatory engorgement of the corpus spongiousm and spasm of the musculature of the urethra the term *chordee* is applied:

Priapism due to the ingestion of cantharides, which is a form that is seldom or never seen now, since this drug is so rarely used in medicine:

Essential priapism.—This form may be divided into four varieties, viz.: Priapism caused by injury to the spinal cord (either high up or low down) and by blows or violence inflicted upon the perineum; priapism which is a symptom of cerebral or descending spinal-cord disease; priapism which occurs after alcoholic and sexual excesses; priapism which comes on a person in ill-health in whom it is difficult to obtain data as to local injury and causation, and in which cases there is now a tendency to look upon leukemia as the ætiological factor.—W. R. TAYLOR (From *Medical Age*).

PICRIC ACID IN CHRONIC GONORRHŒA.—Bochon (*Méd. Mod., Med. Rec.*) recommends picric acid in chronic gonorrhœa and claims cures after from four to ten injections. In cases in which the pus is free from gonococci and contains but a few formed elements, he employs a solution in the strength of 1 to 100; when the pus is rich in formed elements he begins with a 1 to 200 injection; as soon as gonococci are present, an injection of silver nitrate, 1 to 50 or 1 to 30, is made, and on the next day picric acid, 1 to 200, is used, and on the following day 1 to 100. The instillations are made every second day, are painless, and cause very slight reaction.

AN ORIGINAL WAY OF DOING A VAGINAL HYSTERECTOMY.—Dr. J. D. Arnold, before the California Academy of Medicine, October 16, 1897. (*Med. Rec.*), reported a case in which a midwife, after having delivered a woman, thonght she saw the head of a second child protruding from the

vagina. She seized it with both hands, and violently delivered, as she supposed, a second child. What she did deliver was an inverted uterus, completely tearing it away from its attachments. The physician who was called in did nothing but tampon the vagina, and the woman made a complete recovery. No arteries were ligated, either *en masse* or singly.

PSORIASIS:

Ichthyol	℥i
Acid salicylic	℈i
Zinci oxidi	℥ii
Amyli	℥iv
Petrolati	℥i

Sig.—Apply locally, twice a day.—*American Medico-Surgical Bulletin.*

NITRO-GLYCERINE FOR SCIATICA.—Troussevitch has cured several obstinate cases of sciatica by giving the lollowing drops.—*Pract:*

℞. Solution of nitro-glycerine (1 per cent).....dr. ss.
Tinct. of capsicum .....dr. iss.
Peppermint aq .....dr. iii.

M. Sig. Five drops thrice daily, in a tablespoonful of water, for the first three days, then ten drops thrice daily on the subsequent days.

CAMPHOR AS AN ANTIGALACTOGOGUE.—Hergott (*Rev. Méd. de l'Est*), being dissatisfied with the effect produced by the usual antigalactogogues, including antipyrin, has tried camphor, and finds that nine and a fourth grains a day divided into three doses, and given for three days, nearly always produce a remarkable diminution of the secretion. He has used it in thirty cases, having been first led to try it by the good results obtained by Kiener in animals, especially milch cows.—*Brit. Med. Jour.*

Book Reviews.

THE AMERICAN TEXT BOOK OF OPERATIVE DENTISTRY.—In contributions by eminent American authorities. Edited by Edward C. Kirk, D.D.S., Professor of Clinical Dentistry, University of Pennsylvania, Department of Dentistry. In one very handsome octavo volume of 699 pages, with 751 engravings. Cloth $5.50; leather $6 50 net. Lee Brothers & Co., Publishers, Philadelphia and New York. Toronto, McAinsh and Kilgour.

Within the last few years the profession of Dentistry—itself a highly specialized branch of Surgery—has rapidly developed within its limits many specialties, thus rendering a comprehensive and up-to-date treatise of the entire range of practice from the pen of any one author an exceedingly laborious and difficult undertaking.

Through the composite authorship of the volume before us every aspect of Operative Dentistry is ably dealt with by writers who may well be considered authorities in the various departments under consideration.

The work resolves itself into three divisions, viz., Dental Anatomy, Operative Dentistry, Dental and Facial Orthopedia.

This latter subject of dental irregularities and their correction, together with many forms of facial deformity, is very exhaustively dealt with, and while the entire work is especially recommended to the student, it should find its way into the hands of the general practitioner and will be found an extremely useful volume.

PUBLISHERS' DEPARTMENT.

MALTINE WITH COCA WINE.—We are indebted to our friends the Maltine Company for supply of blotters, produced in the elegant style which characterises all the announcements of this well-known house—whose preparations hold front place in the esteem of all progressive physicians. Concerning the preparations set forth on these blotters we have no hesitation in pronouncing it one of the most valuable "Coca" preparations—for the reason that the re-action incident to the use of this drug (solus) is entirely averted by its combination with Maltine. The preparation is largely used as an economizer of vital energy and as an aid to perfect assimilation of food. The manufacturers will send samples to any physician applying for same.

DUNCAN, FLOCKHART & CO'S. BLAUD PILL CAPSULES.—We are strongly of opinion that while medical men should be particularly guarded in giving testimony as to the merits of a preparation, there are occasions when their endorsement should not be withheld—and a word in favor of "D. & F." Capsules is one of the exceptions. In common with a very large percentage of the profession, we have fully tested these valuable Capsules, and freely endorse the opinion expressed by writer of subjoined letter:

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"GENTLEMEN,—It is with much pleasure that I have to pay a tribute to your Capsules of Blaud Pills. I do not think I can do better than relate one of many cases I have treated solely with them.

"E. C., aged 23, suffered from extreme anæmia, with its attendant phenomena, for two years and nine months, and had been attended both in private and hospital practice, but with no result, and was gradually getting worse. At this stage she consulted me. I found that even the lips and gums were perfectly colorless, great œdema of the limbs, and the patient unable to move about. I put her upon one of your 3-pill Capsules three times daily. In a fortnight the whole of the œdema had disappeared, all palpitation had gone, and the patient told me that she had never felt so well. In six weeks she was quite well, and in perfect health. This occurred nearly twelve months ago, and I hear she is still quite well. The case is but one of a number, and I might mention, en passant, that I had a case of gastric ulceration which gave way to this treatment, having defied all other means. I feel justified in telling you that you can make use of this in any way you may feel disposed.

"Yours very faithfully,

"————, L.R.C.P., L.R.C.S."

BACK NUMBERS.—Carron Oil, Iodoform and Picric Acid are back numbers in the treatment of burns. Carron Oil possesses no antiseptic qualities whatever, while Iodoform, owing to its strong toxic effects and odor,

is very objectionable to the patient, and, in some cases, dangerous to use.

In regard to treating burns with Picric Acid, its disadvantages are: staining of the hands and bedclothes, and its utter uselessness in allaying the inflammation or assisting in granulation. Then again: Walther, in the *Gazette*, Hobdon de Medicine et de Chirurgical, reports a case of two children he treated for burns with compresses of Picric Acid, in which there was much pain, severe smarting, and vomiting. A second application was made, with same result, and this mode of dressing had to be discontinued.

In Unguentine we have a thoroughly antiseptic, healing and restorative dressing, non-toxic, inodorous and clean. It readily subdues inflammation, and assists in granulation, and was used in the hospital barracks at Key West, Florida, where the wounded soldiers of the "Maine" were sent for treatment from Havana.

CLINICAL NOTES ON GUAIAQUIN.—Messrs. McKesson & Robbins, New York, have recently issued an exceedingly handsome and valuable pamphlet with the above title, and will be glad to send it to all physicians who will ask for it. The work is very thorough, much thought and money having been spent upon it. It is profusely illustrated, and the colored plates, showing the various stages in the life history of the malarial parasites, will be found of much value, and are, we believe, the most complete that have been issued on this subject.

Malarial fever has resisted all but the most heroic treatment with quinine, showing that it is not so much an antipyretic as an antiseptic remedy which is needed. Guaiaquin is, therefore, of special value in this direction. Microscopical investigation of the blood of patients affected with malaria and treated with the guaiaquin shows that this remedy eliminates the plasmodium malariæ much more effectively than quinine. Physicians can readily confirm this statement by independent investigation.

THE GLEASON SANITARIUM—Located at Elmira, N.Y., is an institution to which physicians may send patients with the assurance that they will receive the best care.

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The medical department is under the supervision of Dr. John C. Fisher, who was for some years in charge of the Warsaw, N.Y., "Salt Baths."

SANMETTO THE STANDARD PREPARATION FOR GENITO-URINARY DISEASES.—For some years I have been a very warm admirer of Sanmetto, and have found its action marked and well defined in the cases wherein I have used it. In cases of prostatis, with loss of virile power in elderly men, I find its action superb. In chronic specific urethritis, cystitis and all irritable conditions of the urinary tract, I find Sanmetto very efficacious. I do not hesitate to recommend it as a standard preparation in cases where the action of pure santal and saw-palmetto is indicated.

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THE GREAT FACT IN MODERN MEDICINE:

"The Blood is the Life,"
And Where Nature fails to make Good Blood,
WE CAN INTRODUCE IT.

BOVININE is Bovine Blood Unaltered from the Arteries of the Bullock;
The Universal Auxiliary of Modern Medicine and Surgery,
and the TRUE "ANTITOXIN" of Healthy Nature.

In the more enlightened progress of Modern Medicine, "Blood-letting" has given place to Blood-*getting*.

Aye! Get Good Blood—but How? Not by the Alimentary Process. It has already failed to do its work (else the patient would not be sick); and in acute disease must not even be allowed to do the work it can. Stimulate as you will, the whole sum of the patient's alimentary power when fully forced into play, is unable to keep up the nourishing and supporting contents of the blood. There is absolutely but one thing to do; and, thank God, that can be done, usually with success, as ten-thousand-fold experience has proved. That one thing is this: where Nature fails to PRODUCE good and sufficient Blood, WE CAN INTRODUCE IT from the arteries of the sturdy bullock, by the medium of BOVININE.

The vital activity of this living blood conserve rests on no man's assertion: it speaks for itself, to every properly equipped physician who will test its properties microscopically, physically, or therapeutically.

TRY IT IN PRACTICE.

TRY it in ***Anæmia,*** measuring the increase of red cells and hæmaglobin in the blood as you proceed, together with the improving strength and functions of your patient.

Try it in ***Consumption,*** with the same tests from week to week.

Try it in ***Dyspepsia*** or Malnutrition of young or old, and watch the recuperation of the paralysed alimentary powers.

Try it in ***Intestinal*** or gastric irritation, inflammation, or ulceration, that inhibits food itself, and witness the nourishing, supporting and healing work done entirely by absorption, without the slightest functional labor or irritation; even in the most delicate and critical conditions, such as Typhoid Fever and other dangerous gastro-intestinal diseases, Cholera Infantum, Marasmus, Diarrhœa, Dysentery, etc.

Try it per rectum, when the stomach is entirely unavailable or inadequate.

Try it by ***subcutaneous*** injection, when collapse calls for instantaneous blood supply—so much better than blood-*dilution!*

Try it on ***Chronic Ulceration,*** in connection with your antiseptic and stimulating treatment (which affords no nourishment) and prove the certainty and power of topical blood nutrition, abolishing pus, stench, and PAIN, and healing with magical rapidity and *finality.*

Try it in ***Chronic Catarrhal*** Diseases; spraying it on the diseased surfaces, with immediate addition of peroxide of hydrogen; wash off instantly the decomposed exudation, scabs and dead tissue with antiseptic solution (Thiersch's); and then see how the mucous membrane stripped open and clean, will absorb nutrition, vitality and health from intermediate applications of pure bovinine.

Try it on the ***Diphtheritic Membrane*** itself, by the same process; so keeping the parts clean and unobstructed, washing away the poison, and meanwhile sustaining the strength independently of the impaired alimentary process and of exhaustive stimulants.

Try it on ***anything,*** except plethora or unreduced inflammation; but first take time to regulate the secretions and functions.

Try it on the ***patient*** tentatively at first, to see how much and how often, and in what medium, it will prove most acceptable—in water, milk, coffee, wine, grape, lemon or lime juice, broth, etc. A few cases may even have to begin by drops in crushed ice.

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