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CANADA

MEDICAL & SURGICAL JOURNAL

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Original Communications.

APPOINTMENT OF DENTISTS TO HOSPITALS.

BY W. GEO. BEERS, L.D.S., MONTREAL.

Seventeen years ago, in an editorial in the June number of the *Canada Journal of Dental Science*, I discussed the question of creating subordinate dental departments in general hospitals, to afford gratuitous relief to the poor, as follows :

“ It is not to be expected that these institutions can afford to pay the same attention to diseased dentures as to diseased eyes ; or that the various ills to which the teeth are heir will receive a like conservative consideration with those of organs more vital. But it needs little argument to convince the commonest understanding of the importance of the teeth in the economy, and that proper treatment, whether applied to their salvation or their removal, involves no small modicum of personal comfort and general health. It is certain that the great number of teeth annually extracted in all general hospitals in Canada where a dentist is not attached, are not treated according to the golden rule or the first principles of dental surgery. Hospitals do the best they can with the existing arrangements, and make no pretensions or attempt to preserve decayed teeth. Patients are well aware that the only relief offered is extraction ; and as they are generally bad diagnosticians of their own trouble, hundreds of teeth are extracted that might have easily been saved. And even for this *dernier resort* hospitals are deficient in means and appliances. The wonder is that serious accidents do not often occur. Unnecessary suffering is inflicted, and it is a very com-

mon occurrence that cases which a dentist could dispose of with the greatest ease are rendered not only formidable, but frequently dangerous, for the want of proper instruments. Medical students have come to regard the extraction of teeth as their legitimate department of surgery even before they have begun to learn 'surgery'; and it is a fact that they enter upon it without tuition, and are extended a license which would not be permitted for an instant with other diseases of the body, however slight."

The above extract is as applicable to-day as when it was written, and I need not amplify it. Suffice it to say, that at that time I brought the matter before the late Dr. Fraser and Mr. Wm. Lunn, with a proposal to appoint to the Montreal General Hospital six dentists, one for each working day. Dr. Robert A. Alloway had actually been rendering his services to the Hospital, as he has since to the Dispensary, in a full and generous manner, but there had been no appointment, and the voluntary work he assumed became a heavy, personal burden.

I may say here, that there is scarcely an hospital in Europe without a regularly appointed dentist. I visited the special institutions in Edinburgh, Glasgow, Birmingham, Manchester, Liverpool, Plymouth, London, Dublin, &c. The Dental Hospital of London is incorporated with the London School of Dental Surgery, has two consulting dentists, and a dentist and assistant for every working day, besides six administrators of anæsthetics and two demonstrators. Students pay a fee of £31 10s., which handsomely compensates the operators for gratuitous services given the poor. The National Dental Hospital has also a college, with as large an hospital staff; charges students £7 7s., and £12 12s. for six months' attendance. All the institutions I visited have a dentist for each working day, and all charge fees to students. In brief, these bodies are teaching corporations, and in no sense purely charitable. At Guy's Hospital there are two dental surgeons' dressers; the senior dental surgeon receives £40 a year. London, St. George's, University, King's and Charing Cross Hospitals have only one dentist each. At St. Bartholomew's there are four, and an annual sum of £250

is divided among them. The Evelina Hospital for Sick Children, as well as the one in Bloomsbury, have each one; the Brompton Hospital for Consumption has one; Westminster has two; the Royal Westminster Ophthalmic has one; the National Orthopædic has one; the various special hospitals for women and children, such as the Chelsea, Soho Square, Marylebone Road, Royal and Samaritan, have each a dentist. It would be tedious to enumerate the list.

The difficulties in the way of establishing independent dental hospitals in this Province at least, such as exist in London, Edinburgh and Dublin, appear now, as seventeen years ago, insurmountable; and it is still believed that by application with existing bodies all the advantages of independent hospitals could be obtained without the present necessity of soliciting public aid.

It must not be imagined that our profession has not done its share in this direction. Just because there are no special departments in our hospitals, every dentist in the city has done, and willingly does, a large share of gratuitous work for the poor in the private office; while most of them informally give free services to certain charitable and benevolent institutions. Of course it would be impossible in a small city like Montreal, where even disease and death are classified by religion and nationality, to secure that harmony which is necessary to embrace all the operations performed in the institutions I have named. The dental profession is neither numerically nor financially much better than the English curates, of whom it was said that they were "the best educated paupers in the parish," and without the direction and strengthening influence of the medical profession, they cannot do even what they are willing to do. Whether it would be wise or not to ask us to include in the services to be rendered the full complement of our practice is a question. But if the city dentists are willing, as they have expressed themselves to be, to afford relief in extraction, for remedial as well as for regulating purposes: to treat diseased gums, excessive deposits of salivary calculus, and operations of a slight character to preserve rather than to extract, the ground would not only be fairly well covered for patients who do not expect their bread buttered on

both sides for nothing, but may open the way for more extensive work later on. In consideration that it is proposed to do this without fee or hope of reward, and that the dentists only ask the hospitals to supply a cheap operating chair and the necessary instruments, there should be no great difficulty in settling the matter to-day instead of waiting seventeen years more. The appointment of a dentist for each working day for general hospitals, three for dispensaries, and one for certain charitable and benevolent institutions, is quite necessary to secure efficient and proper attendance.

CASE OF TRACHEOTOMY IN DIPHTHERIA— RECOVERY.

BY J. W. CLEMESHA, M.D., PORT HOPE, ONT.

The patient, a little girl aged 8 years, was first seen on the 15th of March. I then found the diphtheritic membrane on the tonsils, pharynx, and extending into the posterior nares. The constitutional symptoms were not unusually severe. On the 17th symptoms of laryngeal invasion appeared, and the membrane completely covered the throat. In spite of the usual treatment the dyspnoea increased, and it became evident the child would die if not relieved. On the 19th, in consultation with Drs. Clark and Jalter, tracheotomy was decided upon, and I at once opened the trachea and put in a canula. During the operation, which was performed under chloroform, the struggle for breath was so great that we feared she would die on the table. The operation was consequently hurried, and the opening made in a pool of blood, which ran into the windpipe when the tube was put in. A vigorous cough expelled the blood, and breathing became at once quiet. After the operation, for some time, the pulse was very weak, but improved under stimulants. On the tenth day after the operation the canula was removed, but as the false membrane covered the wound and lined the trachea as far as could be seen, and the breathing was somewhat difficult, it was replaced. On the twelfth day it was again removed, but replaced, as there was still membrane to be seen and the breathing was more comfortable with the tube in; the

child also asked to have it put back. On the fifteenth day the tube was finally removed, the patient breathing easily through the larynx. The wound rapidly healed, and the child is now well. The after-treatment consisted in maintaining a warm, moist atmosphere in the room by slacking lime and the steam of water. The tube was covered by a warm, moist sponge, and frequently sprayed with a solution of lactic acid in lime-water and glycerine. Stimulants were freely given, the patient at one time taking in twenty-four hours six pints of Bass' ale, and for days two or three pints a day. As she improved the desire for ale lessened. The convalescence was fairly uninterrupted; constant care, of course, being required to keep the canula clear. The care and attention involved in bringing this case to a successful termination was enormous. For the first ten days Dr. Jalter or myself was in constant attendance during the night, and Mr. H. Soltis, a third year medical student, during the day. The little patient, also, was extraordinarily intelligent and docile; whatever the doctor or nurse wished her to do was done without a murmur. The operation was done before the vital powers were exhausted, which no doubt favored recovery.

My object in reporting this case is to encourage medical men to give, in like cases, a chance for life by an operation. They can but die at any rate; but death is shorn of half its terrors by the operation. Consent of the parents is, in my experience, hard to obtain, which, I think, is partly our own fault, as we are, unfortunately, unable to hold out any great hope of the success of the operation, and we are not emphatic enough in urging it. I would say, operate early; do not wait until the patient's vital powers are exhausted and the nervous system poisoned by insufficiently purified blood. And if we save a life, it is an unmistakable triumph of the healing art.

QUARTERLY RETROSPECT OF SURGERY.

BY FRANCIS J. SHEPHERD, M.D., C.M., M.R.C.S., ENG.

Surgeon to the Montreal General Hospital; Professor of Anatomy and Lecturer on Operative Surgery, McGill University.

Radical Cure of Hernia.—The radical cure of hernia is a subject which has for years interested surgeons, and many operations have been devised to permanently cure herniæ. Up to quite recently these were all comparatively unsuccessful, especially in cases of large irreducible herniæ. The operations of Wützer and others, though much lauded at the time, are now admitted to have been failures. Wood's operation was more successful, but never as successful in the hands of other surgeons as in those of the originator. The radical cure of hernia by the introduction into the inguinal canal of some astringent and irritant solution was practiced secretly with success by men such as Heaton of Boston, but although this method is still practised by some surgeons, its results are uncertain, and it is not applicable to large herniæ or those which are irreducible. With the introduction of modern antiseptic surgery, bolder and more successful measures were practised. The results of these methods, which have been carried out for the last few years by hospital surgeons, are now becoming apparent, and papers are being published giving series of cases treated by cutting down on the hernia and dissecting out the sac, replacing the bowel, then ligaturing the neck of the sac and extirpating it. In many cases the canal at the same time is closed by sutures. This method of treating hernia was largely discussed at the last meeting of the British Medical Association, held in Dublin, and many very valuable papers were read. I propose in the present retrospect to give a synopsis of the various methods practised by modern surgeons for the radical cure of hernia.

Mr. Mitchell Banks, who was one of the first to extensively perform this modern operation for the radical cure, and who has had a very wide experience, read a paper detailing his methods and giving the results of his practice. (*Brit. Med. Journal*, Dec. 10, 1887.) His method in inguinal hernia is, first, to cleanly dissect out the sac, replace the bowel, and tie and cut

off the adherent omentum ; the sac is then pulled down, ligatured as high up in the canal as possible, and removed ; finally the pillars of the ring are brought together by two or three silver sutures, which are left in position. In *femoral hernia*, the cleansing and removal of the sac constitutes the whole operation, and no attempt is made to close the femoral aperture. In *ventral* and *umbilical hernia* use is frequently made of the whole or part of the sac as a plug to stop the aperture, which is generally large. This method for the radical cure of hernia Mr. Banks considers the simplest yet devised ; the more complicated operations he thinks are most successful in the hands of their inventors. He claims no originality for the operation. He presented a table of 106 cases, 68 of which were herniæ without strangulation, while in 38 strangulation was present. The non-strangulated cases he divides into two groups—the first where the herniæ were of moderate size, and the second where the herniæ were very large or even of enormous size. In the first group the operation is comparatively easy, and the mortality is not great ; but in the second group, where the herniæ were of large size, so large that no truss or any support was of any value, and the patients were unfitted for the duties of life, the operation was usually difficult and prolonged, and the dangers great. In the first class, non-strangulated herniæ of small size, there were 52 operations with 2 deaths ; one was a weakly child aged 2, who had a landslip of the cæcum into the scrotum, and who died of shock, and the other was a man aged 47, suffering from locomotor ataxy. In the second class, very large and enormous herniæ, not capable of support by trusses, there were 16 cases. Here the mortality was great—four deaths, 25 per cent. In one case the amount of bowel was so great that it could not be returned into the abdomen, and the operation had to be abandoned. In large operations he leaves the wound open. In the third class, strangulated herniæ, there were 38 cases with 3 deaths. One of these was practically moribund at the time of the operation ; another case was an old bronchitic aged 77.

Now as regards the actual utility of the operation. Of the 66 cases Mr. Banks has been able to follow up, 44 were com-

pletely successful from a curative point of view, and 7 were partially successful; that is, they could wear a truss, where before they could not.

Mr. Banks thinks that operative procedures are seldom required in children, and he thinks a well-fitting truss in the vast majority of cases will effect a cure. He always urges the operation in cases of small femoral herniæ with adherent omentum, as they are never safe from sudden strangulation. No one should be subjected to the operation who can wear a truss with comfort, which keeps his bowels securely in position.

Mr. Banks strongly recommends that a light support should be worn after operations, and he does not believe that this destroys adhesions, as some teach. Mr. Banks is more conservative than most surgeons who practice the operation of radical cure, and limits its performance to certain cases only; in this way he thinks more good will be done than by indiscriminate cutting.

Macewen's Operation.—At the same meeting, Dr. William Macewen of Glasgow described his operation for the radical cure of oblique inguinal hernia. (*Brit. Med. Jour.*, Dec. 10, '87.) This operation has already been described in the August number of the *Annals of Surgery* for 1886.

Dr. Macewen says that in the various kinds of operation for radical cure of hernia at present performed, the sac is either retained in the canal, being dealt with in various ways, or a ligature is placed on its neck and the remainder of the sac removed. In his operation the sac is preserved and completely returned beyond the limits of the canal, where it forms a pad, which is placed on the abdominal aspect of the circumference of the internal ring. When the sac is left in the canal it acts as a plug, and plugs tend to widen instead of obliterating the canal. Before operating, the hair of the pubis and neighboring parts should be closely shaved, the skin washed with soap and water and nail brush. After drying, turpentine should be smeared over the parts, and after a little methylated spirit to clear away the turpentine. The parts are then covered with lint soaked in an antiseptic solution until the patient is ready for operation. Dr. Macewen has special needles for the performance of his

operation ; they are right and left, and curved at right angles to the shaft. Wood's or Reverdin's needle might be used for this operation. After having reduced the bowel, an incision is made sufficient to expose the external abdominal ring. The operation is divided in two parts:—one to establish a pad on the abdominal aspects of the internal ring and the other to close the inguinal canal. To form the pad, (a) the distal extremity of the sac is first freed and elevated, then the sac is pulled down and the finger is introduced into the inguinal canal, and the sac is separated from the cord and the parietes of the canal ; (b) the finger is introduced outside the sac until it reaches the internal ring, then with the tip the peritoneum is separated for half an inch all around the ring ; (c) a stitch is secured firmly to the distal extremity of the sac, the end of the thread is then passed in a proximal direction several times through the sac, so that when pulled upon the sac is folded or puckered up like the top of a curtain, the free end of this stitch is threaded in a hernia needle introduced through the canal to the abdominal aspect of the fascia transversalis, and there it is made to penetrate the anterior abdominal wall about an inch above the upper border of the internal ring, the wound in the skin is pulled up so as to allow the point of the needle to project through the abdominal muscles without penetrating the skin, the thread is then taken out of the needle and the needle withdrawn. Traction is now made on the thread, the sac wrinkles up and is thrown into a number of folds. An assistant maintains traction upon the stitch until the sutures closing the inguinal canal are introduced, and then the end of the stitch is secured by introducing its free extremity several times through the superficial layers of the external oblique muscles. In this way a pad of peritoneum is placed upon the abdominal side of the internal ring and becomes attached there, the surfaces having been freshened. The closure of the canal is now undertaken. This is effected by means of the hernia needles passed through the *conjoined tendon* in such a way as to leave a loop in the abdominal aspect and two free ends externally ; these are separately passed from within out through Poupart's ligament and tied there in a reef knot. The

material used for sutures is catgut. The wound is drained with a bone drain, dusted with iodoform, and dressed with a sublimate wool pad; the wound is not dressed again for two weeks. The patient is kept in bed four to six weeks, and is told not to lift anything for several months.

Dr. Macewen has performed his operation in 49 cases of non-strangulated and 16 of strangulated hernia, making in all 65 cases; 16 other cases were operated on by forming this pad for femoral hernia. In one case only did the operation fail, and no case died. Of the 49 non-strangulated cases, 19 have been kept under observation for no less than one year, and 20 from one to five years; all were successful. Of the strangulated cases, 14 have been kept under observation from one to four years. Of the femoral cases, 6 were under observation from one to three years. All the cases when last examined were found to have the rings firm, with no impulse on coughing. Out of 48 non-strangulated cases, in which the operation for radical cure was performed, one only was found afterwards to wear an external pad; the parts, however, were firm.

Dr. Macewen's results are remarkable; no deaths and only one failure. I had the pleasure of seeing some of his cases last summer and can testify to the efficiency of the operation. The good results, however, are as much due to Dr. Macewen's wonderful skill and care as to the operation itself, which is an excellent one, and not very difficult to carry out if once seen.

Ball's Operation by Torsion of the Sac.—Mr. C. B. Ball of Dublin (*Brit. Med. Jour.*, Dec. 10, '87) has devised an operation which is as follows: The sac must be completely isolated from the structures comprising the spermatic cord by narrow-bladed blunt scissors. Having ascertained the sac is empty, grasp the neck with a pair of broad catch forceps and gradually twist it up. While this is being done, the left forefinger should be used to free the upper portions of the sac. Four or five complete revolutions are sufficient in most cases. The torsion forceps is now transferred to an assistant, and a stout catgut ligature is placed around the twisted sac as high up as possible, tied tightly and the ends cut short. Two sutures of strong

aseptic silk are now passed through the skin at a distance of about an inch from the outer margin of the wound, through the outer pillar of the ring, through the twisted sac in front of the ligature, and then through the inner pillar of the ring and skin upon the inside. The sac is now cut off in front of these sutures, and a catgut drain is brought out through a separate opening at the back of the scrotum and the two sutures closed over lead plates which lie at right angles to the wound. The pain is not great. Dry dressings are used and allowed to remain in for ten days or a fortnight. Mr. Ball has operated on 22 cases for radical cure without a death, and in only three had a truss afterwards to be worn. He does not approve of wearing a truss after operation unless there is a return. In congenital hernia he divides the sac circumferentially close to the testicle, as do most operators, and then the serous membrane above is separated well up to the internal ring and twisted.

Mr. Ball holds that the effect of torsion of the sac in closing the hernial canal and tightening up the peritoneum is greater than in any other operation, and that it fails in relatively few cases. He treated three cases of strangulated hernia in this way with one death, where the patient had kidney disease. The patient died on the eighteenth day, and the specimen which he obtained showed the far reaching effect of torsion of the sac remarkably well.

At the same meeting of the British Association several other papers were read. Mr. Kendal Franks of Dublin described a method of *Cure of Hernia by Dissection*. He holds that in competent hands the operation is perfectly safe. Mr. Franks does not regard a case as cured if a truss has to be worn. In his operation the skin incision is made on a higher level than the canal. The sac is then cleared from the surrounding parts, opened, and the finger passed through until the margins of the internal ring can be felt. A silver wire is then passed through one pillar of the ring and through one side of the sac, then the needle is passed through the other pillar of the ring and through the other side of the sac; it is threaded with the same wire and withdrawn. When this suture is tightened, it not only closes

the ring but fastens the sac. The sac is excised below the sutures. In cases of congenital hernia, instead of dissecting out the cord, the sac is divided across above the testicle; the upper part is peeled off and the lower sutured to form a new tunic for the testicle. To close the inguinal canal and ring, the upper part of the internal ring is first closed by passing the silver wire straight through the aponeurosis of the external oblique; directly over the ring the needle, armed with the wire, is passed through Poupart's ligament and appears in the canal, where the wire is withdrawn. The needle is now passed through the external oblique aponeurosis on the other side of the ring, threaded with the wire and withdrawn. A second one is passed in the same manner lower down. A third suture closes the external ring. Mr. Franks has had twenty cases without a death.

Barker's Operation.—Mr. Arthur E. Barker of London reported *Thirty-five Operations for the Radical Cure of Hernia by Original Methods.* (*Brit. Med. Jour.*, Dec. 3rd, 1887.) He states that he has in no instance attempted a radical cure of a hernia unless there was some special reason for abandoning the palliative treatment. He excludes from his list all cases in which a radical cure has followed herniotomy for strangulation. Mr. Barker has had no deaths due to the operation, and no symptoms causing any anxiety. In only two out of the 35 cases did the hernia return. The list comprises 12 congenital and 15 acquired inguinal hernia, 1 femoral and 3 umbilical. Twenty of the cases were under 10 and nine above 20; the youngest was four months and the oldest 70 years. Silk was used in all cases, as he considers it more certain than catgut or kangaroo tendon. The peculiarities of Mr. Barker's operation are as follows: Having cleared the neck of the sac, a stout silk ligature is passed under it, close to the external ring, care being taken not to include the vas deferens. Before this ligature is tied the sac is opened longitudinally below the ligature sufficiently to see clearly that the neck is free from gut or omentum, which, if present, are reduced completely or the omentum cut away. When the neck is quite clear the ligature is tied round it firmly *en masse*, the ends being left uncut. The sac is now cut across

half an inch below the point of ligature and the lower scrotal portion left to take care of itself. One of the ends of the ligature hanging from the stump of the neck of the sac is now threaded in a Lister's needle, and the latter passed up the inguinal canal in front of the cord, guided by the left index finger, which pushes the stump of the sac before it. The internal ring is felt for and the needle is forced through one border of the ring and out through the external oblique muscle, it is then unthreaded and withdrawn, and is again threaded with the other end of the ligature; this is carried in the same way through the opposite border of the internal ring and through the external oblique muscle, the needle unthreaded, and then both threads are pulled up (the stump is thus drawn into the abdomen), the two ends tied together in a secure knot, and thus the internal ring is closed. The canal is closed by four to six stitches passed in front of the cord. Dry dressing is applied and not removed for ten days: drainage is unnecessary. The patient remains recumbent for three weeks to a month. In three cases where the hernia returned a second operation was necessary. Of the 20 cases which have been followed up, none have shown any return of the hernia. The longest time after operation, however, was only twenty months.

Since the paper was read before the British Association Mr. Barker has had six other cases, all successful. So Mr. Barker has had 41 cases with no deaths, a remarkably good showing. As to the results of the operation regarding permanent cure, the time that has elapsed is not yet sufficiently long to judge, but there had been altogether five returns up to date of paper (Dec. 3, '87).

Mr. Mayo Robson of Leeds reports (*Brit. Med. Jour.*, Dec. 17, 1887) *Twenty-six Consecutive Operations for the Radical Cure of Hernia*. Half the cases were performed after herniotomy for strangulation, and the others in non-strangulated cases for irreducible or troublesome herniæ, where no truss could be satisfactorily applied. In all but two cases where Wood's operation was performed, the sac was excised after its neck had been ligatured, the canal being sutured only if very open. In every

case strict Listerism was followed out, and as a rule not more than one or two dressings were required. The ages of patients varied from three months to 76 years. The ruptures were ventral, femoral, inguinal and inguino-scrotal. The greater number were permanently cured, but there were five cases where a truss was advised, and one case of return, but which a truss kept up easily. Three deaths occurred, two in the strangulated and one in the non-strangulated. Two died of acute bronchitis.

Mr. Chauncy Puzy of Liverpool reports 24 cases of operation for radical cure in non-strangulated herniæ, and in only half did he find it necessary to suture the pillars of the ring. When ligaturing the neck of the sac he advises that the finger should be pushed up in the sac as high as the internal ring, whilst an assistant presses the ligature beyond the tip of the finger, and thus ties the sac internal to the ring itself; if the sac is hard and unyielding, and there is a chance of the ligature slipping, he transfixes the neck of the sac and ties the neck in two halves first and then passes the ligature around the whole sac. He believes in prolonged rest in bed after operation, two months if possible. It is to this especially that he attributes his satisfactory results.

Dr. Rabagliati of Bradford (*Brit. Med. Jour.*, Dec. 3, '87) reports 10 cases of radical cure, all successful. Three were non-strangulated and seven strangulated; in four cases the hernia was femoral and six inguinal.

Mr. Wm. T. Stoker of Dublin read a paper on the *Theory and Practice of Operation for the Radical Cure of Hernia*. He sums up as follows: (1) That, particularly in young children, operation should only be undertaken when minor measures have failed or are inapplicable. (2) That on the ground of its safety, certainty and precision, the operation by dissection is to be preferred. (3) That twisting the sac is a safe and efficient aid to the operation. (4) That sutures, so far as their use in closing the canal is concerned, serve but a temporary purpose, and that their chief end is to excite a sufficient lymph exudation. (5) That sutures, therefore, need not be introduced tightly, and that trouble from testicular swelling may be thus avoided. (6) That

the permanent retention of wires is unnecessary, possibly hurtful, and bad in theory and practice. (7) That while a uniform support to the inguinal region is desirable for some time following the operation, it cannot safely be afforded by a truss furnished with a pad.—(*Brit. Med. Journal*, Dec. 3, '87.)

At the third French Congress of Surgery held in Paris, March, 1888, a discussion took place on the *Value of the Radical Cure of Hernia with regard to their Final Cure*. (*Medical News*, April 21, '88.) Dr. Socin of Bâle, Switzerland, said he had operated 75 times for the radical cure of non-strangulated cases, and 85 times for strangulated ones. In the first series he had two deaths and the second eleven. He had seen after operation 133 of his 147 patients; some a few months after, others one year, and others at the end of nine years. Many were entirely cured, while others derived much benefit from the operation. Dr. Socin said the operation ought to be performed in every strangulated hernia, except where the intestines should not be reduced. The resection of the sac in such cases, instead of being a danger, offers a new chance of success. With regard to the cure of non-strangulated cases, the indications for operation are: young subjects below twenty, whose rupture cannot be satisfactorily controlled by bandage or truss, and in adults where the truss does not retain the hernia completely in an easy and non-painful position. The chances of success are much greater in the young, when the hernia is small and recent; of these he obtained 62 per cent. of perfect cures. In elderly subjects his successes have been only 42 per cent.

Dr. Socin's operation consists in the total extirpation of the sac below its neck. Suture of the pillars of the ring are only occasionally necessary. In cases of testicular ectopia with atrophy, the testicle must be removed with the sac. (Dr. Socin's operation and results are described at length in an article in the *Deutsche Zeitschr. f. Chirg.*, Hft. 3 and 4, 1886.)

Dr. Thiriar of Brussels said that during the last two years he had operated in 26 cases of hernia; 12 were strangulated and 14 not. In 21 cases he performed the radical cure, with one death in an old man. He always sutures the rings and drains

through the scrotum. He only operates when the hernia is irreducible, congenital with testicular ectopia, or when it can be maintained in position with difficulty by a truss.

Dr. Leonté of Bucharest operates as follows: After incision of sac and reduction of the hernia, the internal surfaces of the sac, as well as of its neck, are exposed. He then incises in a circular manner the serous membrane mass on a level with the neck, and separates it from the adjacent cellular tissue. The serous membrane rolls it on itself and the superior orifice is thus obliterated. He then passes a ligature of catgut around all the surface which has been denuded, and drawing the two ends together the opening is closed like a purse. He does not extirpate the sac, but, after scraping it, sews the walls of the sac and the skin in the same suture. By this method he has had seven successes in seven cases, and has as yet seen no return. One case was operated on two and a half years ago.

Dr. Mollière of Lyons operates thus: (1) He isolates the sac first without opening it. (2) The sac is then opened in its most prominent part and the contained viscera examined. (3) In strangulated cases the constriction is incised outside the sac and the neck dilated with a blunt instrument. (4) Finally the sac is ligated with an elastic thread tightly applied.

Dr. Routhier of Paris has performed 14 operations for the radical cure, and advises total extirpation of the sac with ligature of the neck. He does not suture the pillars. He has had only one return. Two cases of umbilical hernia were completely cured.

Prof. Trelat of Paris does not like the term "radical cure," but prefers the words "operative or surgical cure." Cases easily reducible and maintained by a truss should not be operated on. He advises interference in all cases of irreducible herniæ, however small, and in hernia where a truss fails to support. He had collected 307 cases from various sources (17 of his own) without one death. He knows of no more successful surgical operation, although death is possible in certain grave cases.

Dr. J. Boeckel of Strasburg has done twelve operations for radical cure. He lost two patients, one from delirium tremens

and one from septicæmia ; in the ten surviving cases two had a return, three have had no return after ten, twelve and eighteen months, and three have had no return after six and seven years. All wear trusses.

Dr. Lucas-Championnière of Paris made a great distinction between strangulated and non-strangulated cases. He has made 81 operations for radical cure, with one death—a huge tumor in an emphysematous subject. In six weeks one can judge whether the operation is a success or not. He did not see why we should not operate for radical cure in those cases which are outside the rules laid down for intervention ; he had operated on several children. Congenital hernia is an absolute indication. Hernias that grow rapidly should always be operated on. Radical cure has three enemies—pulmonary congestion, the occurrence of large intestine in the sac, which renders the operation difficult and the return of the trouble certain, and, finally, the organic breaking down of old hernial patients who are troubled with albuminuria or glycosuria. He always operates on small herniæ before their volume renders these operations dangerous and less efficacious.

Dr. Segond of Paris has operated 14 times in non-strangulated and 30 times in strangulated cases ; he had no death in his non-strangulated cases and five in the strangulated. Two of his 14 cases had been definitely cured. He applies ligature as high up the sac as possible. In dissecting out the sac it is not always easy to save the cord, and on two occasions he sacrificed it.

Drs. Swarz, Richelot and Le Bec also related cases.

Dr. Keen of Philadelphia reports a case of Macewen's operation for the radical cure of hernia which was followed by a speedy return (*Medical News*, March 18, '88), but still the hernia was improved. Dr. Keen also reports a case of *Omphalectomy* for strangulated umbilical hernia which was followed by death (*Med. News*, Feb. 25th, 1888). The patient was a woman aged 56, short and fat. The hernia had become strangulated and fæcal vomiting had set in. Several days after, the first symptoms of strangulation set in ; the operation was performed by cutting down

on the tumor, exposing inflamed omentum, and reaching a knuckle of bowel which protruded through the umbilical opening. The intestine was congested, but not dark in color; it was reduced. The ring was large enough to admit the forefinger, but was so thick and unyielding that it could not be closed, so it was excised by an elliptical vertical incision six inches long; the omentum was cut off and the wound closed, but the woman died next day. At the post-mortem the bowel was found gangrenous, the gall-bladder filled with stones, and the kidneys large and friable—right contained numerous calculi. Dr. Keen attributes the fatal result to the too late performance of the operation. Antipyrin was given, and was followed by collapse; and perhaps this drug precipitated the collapse which preceded death.

I have taken up considerable space in describing the present status of the operation for the radical cure of hernia by the direct method; but the subject has seriously occupied the attention of surgeons for some years, and the results of a large series of cases are only now being reported. On the whole, the verdict is favorable, not only as to the immediate good result, but as to the permanent cure or great improvement in the large majority of cases operated on. The operation of Mr. Banks appears to me to be the one which is the easiest of performance, and which gives as satisfactory results as any other method. It is an operation which any modern surgeon of ordinary skill can perform. It requires no complicated method of stitching or the use of any special instruments. The surgeon may modify it to suit himself, as, for instance, substituting silk or catgut for wire and treating the neck of the sac by fixing it to the internal ring in some such simple way as suggested by Mr. Barker.

Mr. Macewen's operation in his own hands has certainly been most successful, but I question whether other surgeons can get as good results.

In all the operations the principle seems to be to dissect out the sac and to cut it off after ligaturing the neck. The question of the utility of suturing the pillars of the ring is still disputed by some surgeons, but the point insisted on by Macewen is important, viz., that the conjoined tendon and not the external

oblique aponeurosis should be sutured to Poupart's ligament. The canal is much more effectually closed by this method. All cases should be well considered before undertaking operative procedures, and where no inconvenience is caused by the rupture it should not be interfered with. The rules laid down by Mr. Banks as to the cases that are suitable for operation should be remembered by all conservative surgeons. With regard to the danger of the operation, it is, of course, much greater in cases where the hernia is of large size and contains large intestine. Comparative statistics are very fallacious unless the same kind of herniæ are compared. One man may have a large series of successful cases in ordinary small reducible ruptures, but a few operations in large irreducible scrotal herniæ in fat individuals with emphysematous lungs will seriously affect his statistics. Mr. Banks does wisely to divide his cases into three classes, viz., strangulated, non-strangulated small, and non-strangulated large. The indiscriminate performance of the operation of radical cure in cases which can be easily controlled by a truss is much to be condemned. The difficulty of the operation in cases of old, large, irreducible herniæ is often very great. A short time ago I operated in such a case in a stout man, and had the greatest difficulty, even after cutting off all the omentum, in returning the bowels into an abdomen to which they had been strangers for some years. Nearly all the small intestines, with the whole transverse and descending colons, were in the sac, and it was only by inverting the patient that the bowels could be worked into an abdomen which seemed too small to contain them. When returned, the abdominal walls were distended and as tight as a drum. The patient did well, and there has been no return as yet. In such cases it would be well to starve the patient, perhaps, for some time before operating.

The Return of Extirpated Neoplasms.—At the late French Congress of Surgery this subject was discussed. Dr. Cazin of Berck-sur-Mer gave the results of his practice from September 1882 to 1886. He had extirpated 564 malignant tumors of all kinds; 102 scirrhus of breast, 60 with extension to glands of axilla, 42 without. In the first 60, 7 definite cures and 48 re-

turns, 3 died, and 2 results unknown. In the 42 others, he had 8 absolute cures, 28 returns, 2 deaths, and 5 result unknown. He had operated on 120 encephaloids, 80 with glandular enlargements, 40 without. In the first 80 he had 5 cures, 67 returns, 4 deaths, 4 results unknown. In 40 others, 8 definite cures, 26 returns, 1 death, 5 results unknown. The returns he had observed commenced from three months to seven years after operation. He attributes the proportion of his successes to his adhering strictly to the following precepts, viz., very extensive extirpation, without occupying himself with the immediate union of the wound. Even when the lymphatic glands appear normal, he extirpates the lymphatic vessels between the tumor and the lymphatic glands.

Prof. Verneuil of Paris said in the great majority of cases cancer is a constitutional disease ; the beginning may be a local trouble, which, once developed, will infest for ever the system and never is cured. He had seen in a lady a cancer return in a cicatrix of the breast thirty years after primary extirpation, with histological characters exactly similar to the first tumor ; another case recurred in the glands six and a half years after extirpation of epithelioma of the neck of the uterus. His opinion was that morbid latency explained the glandular return. He thought that the germs of cancer in an embryonic state could be destroyed and influenced by medicines which are powerless in the cancer itself. He always prescribes after an operation a permanent arsenical and alkaline treatment. He orders 1-25th of a grain of arsenic a day, and a teaspoonful of magnesia every night before going to bed. Under the influence of this treatment he had seen a lymphatic gland remain stationary for more than one year after amputation of the breast ; he absolutely condemned iodide of potassium. He advised also a vegetable diet, and thought that the French peasants have had a great increase of cancerous diseases since they have taken more meat with their meals.

Dr. Poncet of Lyons said that of seven primary epitheliomas of the scalp, all died after one or more operations. Two epitheliomas engrafted on old sebaceous cysts gave two cures ; eight

epitheliomas of the tongue, all died from a return of the trouble within two years. Again, he had two cures in epithelioma of the floor of the mouth. In one case of cure, both external carotids were tied and the lower jaw removed.

Dr. Bœckel of Strasburg, out of 103 operations for carcinoma, had 14 deaths and 89 recoveries; 12 of these were permanent cures, 32 have been lost sight of, and 45 others had returns. One case of rectal cancer had no return for six years. Three cases (lip, rectum and tongue) did not return for eleven to twelve years.

Dr. Richelot of Paris reported 13 cases of vaginal hysterectomy, with 7 returns and 6 cures. However, two of the cases had only been operated on two months. It is in the first six months the return of the neoplasm is to be observed. It is rare to observe it after two years.

Remarks were also made by Drs. Labbé, Sabatier, Mollière, and others.

These results of operations for malignant disease are encouraging, and should tend to reassure surgeons that in such cases operative measures are not wholly in vain if undertaken early. In many cases of malignant disease, although the affection may not be cured, temporary relief is afforded in some cases for years. In sarcomata of the neck the results of operation are not brilliant, and I have been much disappointed, after the most extensive operations, to see an almost immediate return. In one case only (round-celled sarcoma) has there been no return after two years.

On the Excision and Scraping of Carbuncle.—Prof. Rushton Parker of Liverpool (*Brit. Med. Journal*, March 31st, 1888) cites some half a dozen cases of carbuncle in which he performed excision in the early stage. After excision he applies pure carbolic acid and then a sublimate dressing. In some cases further advanced he removes the necrotic tissue with spoon and scissors. The results in all cases were admirable.

Mr. Herbert Page (*Brit. Med. Jour.*, March 24th, '88) advises, in cases of carbuncle, to anæsthetize the patient, make a small central incision, and then with a Volkmann's spoon excise every particle of sloughing tissue; such skin as seems dead and

blue should be cut away with scissors. After irrigating the wound with antiseptic solutions, iodoform is dusted in, and the whole covered with wood-wool pads and a pressure bandage applied.

Whilst in Germany last summer I visited Neuber's hospital in Kiel, and he showed me many cases of carbuncle which he had excised. He said that the duration of the affection by such treatment is about ten days. His method is to excise the carbuncle early, irrigate and if necessary scrape, then stuff with iodoform gauze; after five or six days he removes the tampon, pares the edge of the wound, and unites it by a continuous suture. He always gets union by first intention and thus avoids scarring. I have not seen a case early enough to put in practice this treatment, but I have scraped with Volkmann's spoon and removed with scissors the necrotic tissue in a couple of cases with good results.

Case of Cerebral Abscess in connection with Otitis Media successfully diagnosed and evacuated.—This case is reported by Dr. D. Ferrier (*Brit. Med. Journal*, March 10, '88). He says this is one of the few cases of cerebral abscess in connection with disease of the ear which have been accurately diagnosed during life and successfully treated by operation. The patient, a man aged 47, was first seen Nov. 25th, but had been ill since Nov. 10th. He had had an offensive discharge from the left ear for some ten days before. When seen he was drowsy, had pain over left side of head, with photophobia. On the 30th was more drowsy, and it was difficult to rouse him. Normal temperature and pulse. On Dec. 3rd he became delirious. On Dec. 6th his speech was affected; he used wrong words. When seen by Dr. Ferrier he was less drowsy, but incoherent. On examining the eyes signs of optic neuritis were evident. Weakness of right angle of mouth. On careful examination a spot, tender on percussion and pressure, was found two inches above and just anterior to a line drawn upwards from the external auditory meatus. The diagnosis of cerebral abscess was made, and the patient was operated on by Prof. Victor Horsley and the pus evacuated (five drachms). The patient rapidly recovered.

Dr. Ferrier says that he has been able to find only two cases of a similar nature, that of Gowers and Baker, and that of Greenfield (see Retrospect for June, 1887, pp. 71-74). Two others, referred to by Greenfield, Schondorff and Truckenbrod, he adds, but makes no mention of the case reported by Macewen (*Lancet*, March 26th, '87), Ogston's case (*British Medical Journal*, Dec. 2, 1886), and the two unsuccessful cases reported by McBride and Miller to the Medico-Chirurgical Society of Edinburgh in March last. These are all noticed in the *June Retrospect*.

Mr. Barker reports a case of cerebral suppuration (*British Med. Jour.*, April 14, 1888), due to otitis media, which was successfully treated by trephining and drainage; patient was aged 33. Patient had had a purulent discharge from the ear, pain on that side of the head, vomiting, epileptiform convulsions, transient coma and partial left hemiplegia. The paresis had started on left side of face, and had spread to left arm. Indications were that the lesion existed in and about the junction of the middle and lower third of the right ascending frontal and parietal convolutions. On trephining, an ounce of pus was evacuated.

Brain Surgery in Dublin.—At a meeting of the surgical section of the Royal Academy of Medicine, on Friday, Feb 24, 1888, three successful cases of trephining were reported, and the discussion on the papers was adjourned to a future night. These cases were all remarkable.

Professor Thornley Stoker read particulars of a case in which a man fell from a cart while drunk. He came to the Richmond Hospital some days later, rather stupid and with some lightly marked paralytic symptoms. It was not easy to determine whether he had not had an attack of apoplexy. The paralysis becoming more marked, Mr. Stoker trephined in the region of the fissure of Rolando—there was no fracture—and struck the margin of a blood-clot. He again trephined and more fully exposed the clot, which was washed out. The area so compressed was about three inches, and the clot measured nearly an inch in depth. The patient recovered and was exhibited.

Sir Wm. Stokes read a paper on a case of successful trephining for cerebral abscess, and exhibited his patient. The man had been struck with a poker on the left side of the medial line of the head, about an inch anterior to the coronal suture. He was treated as an out-patient at another hospital, but ultimately applied at the Richmond, when he was admitted, several weeks having elapsed from the date of the injury. He soon presented brain symptoms, became convulsed and comatose, and it was determined to trephine. A small fracture was found under the scar; the dura mater bulging into the wound. An exploring needle was introduced to the depth of an inch and a half, and pus was found. The dura mater was then incised, and one ounce and a half of pus evacuated. The patient completely recovered, and is now attending to his ordinary work. The paper noted eleven other cases of abscess which had been operated on by various surgeons, and discussed the questions involved.

The third case was brought forward by Dr. C. B. Ball of Sir Patrick Dun's Hospital, and the patient was also produced. The lad had been struck with a small knife over the squamous portion of the left temporal bone ten days before admission. The wound was healed, but he had some aphasia. Pain in the head and ear supervened, and the aphasia increased. It was determined to explore. He was trephined some weeks after the original injury; a wound was found in the dura mater corresponding to the puncture in the bone. A sinus forceps was passed in, the wound opened up, and some blood-clot escaped. The patient was decidedly better, but next morning he was again aphasic. The wound was washed out and more blood-clot escaped. The aphasia almost disappeared, but two days later returned, and the wound was again washed. After this the patient progressed favorably and is now well.—(*Brit. Med. Jour.*, March 3rd, '88.)

In an editorial in the *Medical News* of April 21st, 1888, is a note of a case operated on by Dr. W. W. Keen. The patient, a young man aged 25, fell eighteen weeks before and had a depression two inches long on the right side of the head, over the supra-marginal and post-Rolandic convolutions. He had epileptic attacks and paralysis of left wrist and hand. The de-

pressed bone was removed, and the underlying dura mater and the diseased brain tissue below was freely excised. The wound united at the end of three days, and patient was up on the fifth day. In this case ergot was given instead of morphine prior to the operation, and cocaine was applied locally to the cerebral vessels with good results in controlling hemorrhage. The button of removed bone was replaced whole, and fixed to the under surface of the flap by catgut ligatures.

Compound Comminuted and Depressed Fracture of the Skull; immediate trephining.—Mr. C. E. Bell relates a case of the above in a man aged 51, who complained of pain only, and was mentally quite clear. He trephined, removed loose fragments, and the man quickly recovered. Mr. Bell has followed out this treatment in four cases in the past fifteen months with the best results. All were operated on immediately after admission to hospital, without waiting for symptoms to develop, and all made excellent recoveries.—(*Lancet*, March 31st, '88.)

Additional Series of Eleven Cases of Cholecystotomy.—Mr. Lawson Tait (*Lancet*, April 14th, '88), in August, 1885, published thirty cases of operations on the gall-bladder with one death. All are yet living, with the exception of one who died of phthisis, and in none has there been a recurrence of the disease. To this list Mr. Tait adds eleven more, all of which recovered except one. The fatal result was due to the advanced age and extremely anæmic and exhausted condition of the patient. She was 61 years of age and never rallied from the operation, and died on the third day. At the post-mortem, the head of pancreas was found to be the starting-point of a carcinomatous growth which spread to the portal fissure; the cystic duct was infiltrated with new growth. At the time of the operation, a large gall-stone and four ounces of pus were removed from the gall-bladder. In the ten other cases Mr. Tait encountered the usual difficulties, such as inflammatory adhesions and contraction of the gall-bladder. Some were suppurating. In solitary gall-stones the trouble seems always to tend to suppurative changes. This makes the gall-bladder friable, contracted, and adherent to the deep structures. Mr. Tait says when there is an absence

of cancerous complications, and the age of the patient is such as to give a fair chance, recovery from this operation is almost certain. In speaking of the advisability of removing the gall-bladder, he says: In cases where suppuration has made the gall-bladder contracted and firmly adherent to deep structures, its removal would be a terrible procedure, and in many cases could not be completed. The more experience he has in dealing with these cases the less necessity it seems to him arises for anything more than the simple process of cholecystotomy, and the extremely favorable results obtained from it put it in the first rank of modern operative proceedings.

Antiseptic Irrigation of Joints.—This operation, introduced by Schede (*Rinne. Centralblatt f. Chirurgie*, Dec. 8, 1877) some ten years ago, consists in aspirating the joint with trocar or needle, removing its contents, and then injecting it with antiseptic solution, which by rubbing, flexing and kneading is brought into contact with every part of the synovial membrane. The washing is continued until the fluid returns perfectly clear. A splint and dressings are then applied for a week, then passive motion for a week, when patient is discharged wearing a flannel bandage.

Hager (*Deut. Zeit. f. Chirurgie*, Bd. XXVII, Hft. 1 and 2) gives a large number of cases treated in this way in the General Hospital of Hamburg. In 100 cases of ordinary dropsy, all were cured with one exception, a tuberculous case. Only four required a repetition of the operation. In 15 cases of suppurative joints treated in this way, 7 recovered with good motion. There were 168 cases treated by irrigation and all recovered; and in 30 cases of purulent effusion, in one only did the procedure fail, demonstrating the fact that irrigation should be resorted to before incision.—(*Abstract of Editorial, Med. News*, March 3rd, 1888.)

Successful Case of Laparotomy for Typhlitis with Perforation.—At the recent meeting of the American Medical Association, held in Cincinnati, Dr. McMurtry of Danville, Ky., exhibited a patient, a physician, on whom he had successfully operated for perforation of the cæcum. Patient was subject to attacks of

colic, for the relief of which morphine injections were used. After a time tenderness was complained of and a tumor discovered in the iliac region. This was followed by hemorrhage from the bowel, vomiting, and tympanites. Operation was performed. Appendix found normal, but cæcum gangrenous in spots and perforations existed through which fæces had been extravasated. The edges of the perforations were trimmed and closed by suture. Patient recovered completely.

Surgery of Enlarged Prostate.—Dr. W. T. Belfield (*New York Medical Record*, March 10th, 1888) thinks that in cases of protracted cystitis from prostatic enlargement we should no longer withhold operative relief, and that after other methods have failed suprapubic operation of the bladder should be made. In a certain percentage of cases the obstacle to urination will be found as a projecting prostatic growth which can be removed with scissors or the cautery. In cases where this cannot be done, a permanent opening may be maintained and a tube fitted in; this enables patient to dispense with the painful use of the catheter. In some cases Apostoli's method of using an intense galvanic current has proved useful. Illustrative cases are given.

The method introduced by Harrison of Liverpool in cases of difficult catheterization appears to be more scientific, viz., incision through the prostate and drainage through the perineum.

Intestinal Obstruction treated by Laparotomy.—Dr. Wm. T. Bull (*New York Medical Record*, Feb. 25th, '88) reports five cases of intestinal obstruction treated by operation, with three recoveries and two deaths. The deaths were in (1) a case of intestinal obstruction by peritoneal band, with peritonitis, operation on eleventh day; (2) obstruction for cancer of the rectum. The recoveries: (1) Acute obstruction caused by peritoneal band; operation on sixth day. (2) Acute obstruction in cancer of the sigmoid flexure; laparotomy and artificial anus on the seventh day. (3) Chronic intestinal obstruction from cancer of sigmoid flexure; laparotomy and artificial anus. Dr. Bull strongly urges operative interference in cases of acute intestinal obstruction if medical measures fail to relieve at the end of 24 or 48 hours. He does not advise removal of the intestines from the abdomen in searching for point of obstruction.

Resection of the Left Lobe of the Liver.—Dr. Langenbuch (*Berlin Klin. Woch.*, No. 3, 1888) records a case in which he successfully resected the greater part of the left lobe of the liver. This had been extensively deformed by tight-lacing, and had caused great inconvenience and trouble to the patient. The patient, a woman, was aged 30. She complained of abdominal tumor, and on examination this was found to be about the size of the fist, and situated in the epigastrium. The diagnosis lay between deformity from tight-lacing and hydatid tumor. An exploratory incision proved it to be due to tight-lacing. Dr. Langenbuch decided to remove this part of the liver, which was separated from the rest by a broad pedicle. The pedicle was transfixed with ligatures and the lobe excised. Symptoms of severe internal hemorrhage appeared the first night, and on re-opening the wound the cavity of the abdomen was found filled with blood. This was sponged out and the vessels secured, and no further trouble arose. The wound healed, but recovery was retarded by the occurrence of ascites, which necessitated tapping. The portion of liver removed weighed about twelve ounces. The patient finally completely recovered.—(*Lancet*, Feb. 4th, 1888.)

Cystitis.—Prof. Guyon of Paris, in some clinical lectures on the above subject, says (*Annal des. Mal. des Org. Gén.-Urin.*, Feb. 1887), when speaking of *Gonorrhœal Cystitis*, that after a gonorrhœa, as soon as the prostatic portion is reached, then cure is difficult. The affection may last years. Gonorrhœal cystitis localizes itself mostly in the neck of the bladder, and in the most severe cases causes the development of granulations. For treatment, he recommends the introduction into the empty bladder of 20 to 50 drops of a one to two per cent. solution of nitrate of silver.

Tubercular Cystitis.—This affection rarely occurs in cases of lung tuberculosis; often tubercle first appears in the bladder or in the neighboring joints and bones. A gonorrhœa frequently precedes a tuberculosis of the bladder. Guyon does not believe with Cohnheim that it can be contracted by sexual intercourse, especially for the reason that the anterior part of the urethra

is never the subject of a tuberculous process. This form of cystitis localizes itself in the neck of the bladder and the trigone. It frequently commences insidiously, without any cause, by symptoms of strangury, incontinence, and bloody urine. This symptom may last days and weeks, and is analogous to hæmoptysis. In other cases there is, in the first place, severe pain. Tuberculous cystitis can be temporarily relieved, and may last 15 to 20 years, without any lung complication. The best way to diagnose the disease is to search for the tubercle bacillus. The treatment is not very satisfactory. Avoid catheterization, and in the most severe cases perform cystotomy either in the perineum or suprapubic region.

Treatment of Carotid Hemorrhage.—At a meeting of the Medical Society of London, held on January 9th, Mr. Frederick Treves read a communication on the above subject. (*Lancet*, Jan. 14th, 1888.) He had long been convinced that ligature of the common carotid for hemorrhage from a small distant branch was a severe and often unnecessary method of treatment. In the limbs, bleeding from a small vessel could usually be controlled and arrested by temporary compression applied to the main trunk either with the finger, by flexion, or other means; but in the neck, temporary pressure by these methods could not usually be applied with success. He had therefore devised the plan of exposing the artery and passing a thread of catgut around it; if the loop thus formed were pulled up, pulsation in the artery stopped; if it were relaxed, the circulation went on again. He referred to four instances in which this manœuvre had been carried out successfully. The great recommendation of the method was that there were no grave risks from the operation itself, and there was no local inflammation in any of the four cases.

Sequel to a Case of Ligature of the Carotid.—At the meeting of the Clinical Society of London, held Feb. 24th, 1888, Mr. Holmes read some notes which formed the sequel to an old case of ligature of the carotid artery which was published in the ninth and tenth volumes of the Society's Transactions as one of distal ligature of the left carotid for aortic aneurysm. The

patient survived the operation for twelve years and then died of phthisis. The post-mortem examination proved that the thrill, bruit and pulsation which were thought to be caused by aneurysm of the aorta depended on stenosis of the valves of the pulmonary artery with dilatation of its left branch. There had been weakness and occasionally total absence of pulse in the left arm, but the cause of this was not explained by the post-mortem examination, which had been somewhat hurriedly made. The aorta and its branches were healthy as far as they were examined. The left carotid was obliterated throughout its whole extent. As the case had been used in discussing the propriety of distal ligature in aortic aneurysms, it was thought right to publish this correction.—(*Lancet*, March 3rd, '88.)

Bleeding after Tonsillotomy.—Prof. D. ZuckerKandl discusses this subject (*Wiener Med. Jahrbücher*, 1887, Hft. 6), and says that in addition to the pharynx wall and fatty tissue there lies a protective muscular layer formed by the stylo-glossus and stylo-pharyngeus between the tonsil and the carotid, and that wounding of the latter in tonsillotomy and the opening of tonsillar abscesses is unlikely if the knife be properly directed. Wounding of the internal carotid is possible in opening retro-pharyngeal abscesses, because there it is forced out of place by the pus. Severe bleeding, however, does occur in operations on the tonsil. This hemorrhage may prove fatal in cases of hemophilia. Sometimes, on account of the retraction of the bleeding vessel through the fibrous capsule of the tonsil, hemorrhage is difficult to arrest, and if not arrested may prove fatal. Pressure or the use of artery forceps generally arrests it, but if everything fails then ligature of the external carotid always will arrest it.

The artery that bleeds is the tonsillar, which may be given off variously. It is most commonly given off from the ascending palatine branch of the facial, more seldom from the facial directly or from the external carotid, and sometimes from the ascending pharyngeal.

Fatal Tonsillar Hemorrhage.—Dr. J. N. Hall reports a case which occurred in a man aged 26, who had suffered from re-

peated hemorrhage from the mouth as a consequence of acute tonsillitis. Styptics and pressure served to control bleeding. Eleven days later hemorrhage recurred with fatal result in a few minutes. It was supposed to be due to ulceration of a large vessel.—(*Boston Med. and Surg. Times*, Dec. 22, 1887.)

REPORT ON PHARMACOLOGY AND THERAPEUTICS.

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THE ACTION OF STROPHANTHIN.

Prof. Fränkel of Berlin recently read a paper before the Berlin Medical Society giving an account of an experience of strophanthin in twenty cases. Twelve were cases of valvular disease, nine of which were uncomplicated. Six were instances of aortic and six of mitral disease. The remaining cases were examples of functional disease of the heart and of chronic nephritis. From his experience in these cases he concludes that strophanthin is in a few cases an efficient substitute for digitalis. In the great majority of cases, however, it is much less effective. He found it to act better in cases of functional disorder (disorder from tobacco, alcohol or excessive work) than in cases of organic failure. He seldom found it cause any disorder of digestion.

In the discussion which followed the reading of Fränkel's paper, Guttman said that he had prescribed strophanthin in thirty cases, principally cases of advanced cardiac disease with generally heart failure. Usually he found its diuretic action well marked. He says, however, that it is not comparable with digitalis.

Langgaard, in his experiments on animals with strophanthin, noticed a marked difference in some particulars between its action and that of digitalis. (1) The action of digitalis in lowering the number of pulse-beats is usually very striking; strophanthin, on the other hand, seldom causes any marked reduction. As specially characteristic of the action of strophanthin he mentions an irregularity in the action of the heart beginning soon after its administration. (2) As to the action on the blood-

pressure, he has also noticed a marked difference between strophanthin and digitalis. Small doses of strophanthin have little or no influence on the blood-pressure, while large doses are very irregular in their action, sometimes causing a fall in the pressure, sometimes a considerable increase. Usually, however, the former is more marked than the latter.

It is well known that the action of digitalis in increasing the blood-pressure is an almost constant one. It is only when exceptionally large doses are given, or considerable doses for a long period, that a fall in the pressure occurs.

Some difference of opinion has been expressed over the mode of action of strophanthin as a cardiac tonic. Haas looks upon this action as being brought about by the drug diminishing the resistance that the work of the heart has to overcome. The majority of recent writers, including Fraser, consider it a direct heart tonic.

There is every reason to believe that it has a direct action in stimulating the secreting structures of the kidneys. The experience of the observers who took part in the discussion might be summed up as follows:

- (1) That strophanthin is a heart tonic.
- (2) That as a heart tonic it is fairly certain in its action, but much less powerful than digitalis.
- (3) In cases where digitalis has failed to bring about compensation, nothing can be expected from strophanthin.

SOME OF THE RECENT REMEDIES RECOMMENDED IN THE TREATMENT OF PHTHISIS.

In a late number of this JOURNAL reference was made to creosote and guaiacol as agents recently lauded in the treatment of tuberculosis, especially pulmonary tuberculosis. It was there pointed out how very improbable were the truth of such statements. The sulphuretted hydrogen bubble was of short-lived, and we fully believe that the creosote bubble will burst as rapidly and as completely.

Recently renewed attention has been directed by several observers to the alleged "anti-tuberculous" properties of iodo-

form. We frequently find in our German exchanges reference to the treatment of cases of tuberculous meningitis with iodoform. In some of these alleged cures the iodoform was applied in the form of ointment to the shaven scalp, while in other cases it was given internally as well as used externally.

Shortly after the introduction of iodoform into surgical practice it was strongly recommended by Mosevig-Moorhof in the treatment of tuberculosis of the bones and joints. He claimed for it a distinct action in these cases—an action distinct from its antiseptic action, and not possessed by any other antiseptic. To this action he gave the name of “anti-tuberculous.”

Warfvinge publishes in a recent number of the *Deut. Med. Woch.* the reports of five cases of tuberculous meningitis cured by iodoform used externally. He employed it in the form of an ointment made with vaseline—one part of iodoform to five of vaseline—applied twice daily to the shaven scalp.

Physicians who have had any extended experience with tuberculous meningitis cannot place any confidence in these alleged cures. Reports, however, from other sources have been favorable to the action of iodoform in tuberculous meningitis, and as the treatment can possibly do no harm, it is advisable to put it to the test.

It is difficult, indeed, to understand how it is possible for iodoform to do good in these cases. Tuberculosis is a disease that is never likely to be cured by any agents which act as microbicides. The principles of the proper treatment of pulmonary or other form of internal tuberculosis lies in increasing the resisting power of the patient.

A paper recently read by C. T. Williams before the Royal Medical and Chirurgical Society of London illustrates the remarkable influence of residence at high altitudes on consumptives. The paper was based on the treatment of 141 cases of phthisis treated in sanatoria varying in altitude from 5,000 to 9,000 feet, in the Alps, the Rocky Mountains, and the South African Highlands, during the last nine years. In 41 per cent. of the above cases there was a complete restoration to health; in 30 per cent. there was great improvement, and slight improvement in 11 per

cent. of the cases ; 13 per cent. died. In the remainder there was deterioration. The earlier the stage of the disease the more marked the improvement. The following were some of the conclusions deduced by the author from his experience :

1. That prolonged residence at high altitudes produced great improvement in the majority of consumptive cases, and complete arrest of the disease in a considerable proportion, such arrest being in a more or less degree permanent.

2. That in order to secure these advantages, patients must be free from pyrexia and all acute symptoms, and must possess sufficient lung surface to adequately carry on the process of respiration in the rarefied atmosphere.

3. That the influence of the climate seemed to promote a change in the lungs, either of a curative or destructive character, and to oppose quiescence.

4. That residence at high altitudes caused enlargement of the thorax, hypertrophy of the healthy lung tissue, and the development of pulmonary emphysema around the tubercular lesions, and that this expansion of the chest was accompanied by diminution of the pulse and respiration rate.

5. That it was probable that the arrest of consumptive disease was partly owing to the pressure exercised on the tubercular masses by the increasing bulk of the surrounding tissue.

6. That the above local changes were accompanied by general improvement shown in the cessation of all symptoms and the gain of weight, color and of muscular, respiratory and circulatory power.

7. That consumptives of both sexes benefited equally by mountain residence, but that the age of the patient exercised considerable influence on the result.

8. That the high altitude treatment seemed to be specially adapted in cases where heredity and family predisposition were present.

9. That the climate was useful in cases of hemorrhagic phthisis, and that hæmoptysis was of rare occurrence at the mountain stations.

10. That mountain climates were most effective in arresting

phthisis when the disease was of recent date, but they were also beneficial in cases of longer standing.

11. That the special effects of high altitude residence on the healthy and sick were common to all mountain ranges of elevations of from 5,000 feet and upwards.

12. That to ensure the full advantage of high altitude residence, a period of at least six months was necessary in the majority of consumptives. In cases of long standing and of extensive lesions, one or two years were often requisite to produce arrest of the disease.

13. That, in addition to the above examples, mountain climates were beneficial in (*a*) cases of imperfect thoracic and pulmonary development; (*b*) in chronic pneumonia without bronchiectasis; (*c*) chronic pleurisy where the lung did not expand after removal of the fluid; (*d*) spasmodic asthma without much emphysema; and (*e*) in anæmia.

14. Mountain climates were found to be injurious in (*a*) phthisis with double cavities, with or without pyrexia; (*b*) cases of phthisis where the pulmonary area at low levels hardly sufficed for respiratory purposes; (*c*) catarrhal phthisis; (*d*) erythric phthisis, or phthisis where there was great irritability of the nervous system; (*e*) emphysema; (*f*) chronic bronchitis and bronchiectasis; (*g*) diseases of the heart and greater vessels; (*h*) affections of the brain and spinal cord, and conditions of hypersensibility of the nervous system; and (*i*) where the patients were of advanced age, and where they were too feeble to take exercise.

Dr. Hennan Weber, who took part in the discussion which followed, said that he had a nearly similar experience in 106 cases of phthisis which he sent to high altitudes. He had nearly 40 per cent. of cure, and nearly 40 per cent. of improvement. He did not attach much value to altitude, except as making open air and exercise easy. He found equally good results from a residence in Frankenstein, which was not more than 2,000 feet above sea level.

Dr. J. C. Pollock desired to direct particular attention to the fact that Dr. Williams had excluded all cases of pyrexia, for, after all, he maintained this state was half the battle in phthisis.

Dr. A. T. Wise emphasized the marked effect of the mountain air in allaying the irritability of the respiratory passages and the good effects it had in stimulating the appetite and raising the patient's spirits.

Several of the speakers referred to the class of patients reported on by Dr. Williams. The cases were cases of the rich man's phthisis, and differed as much from the poor man's phthisis as does gout in the two classes. As a contribution to the value of climate in the treatment of phthisis, Dr. Williams' paper is very important and very suggestive. A great unsolved problem is, by what means can we obtain the same favorable results in the case of the poor man?

Before long the physicians of the Royal Victoria Hospital of Montreal will, through the magnificent generosity of Sir D. A. Smith and Sir. Geo. Stephen, be placed in a position to test what high altitude can do for the poor man's phthisis. In connection with the hospital in Montreal it is their intention to found a convalescent home or sanatorium in the Rocky Mountains, where patients can be transported and treated free of charge.

THE INFLUENCE OF ETHERIZATION ON THE BODY TEMPERATURE.

Dr. H. A. Hare of Philadelphia, in the May number of the *Therapeutic Gazette*, gives an account of some very interesting and important effects of ether on the temperature of the body. In a series of twenty-six operations he found an average fall of temperature of about $2\frac{1}{2}^{\circ}\text{F}$., the greatest fall being 4.4°F . and the least $.8^{\circ}\text{F}$. He concludes that the greatest factor in the causation of this very considerable reduction is the ether, and not the shock attending the operation.

The lesson to be learnt from Dr. Hare's observations is that means should be taken during the performance of operations to keep up the body heat. To leave the treatment of this state until the operation is over is, as Dr. Hare says, tantamount to "locking the door after the horse is stolen."

The importance of the application of external heat in preventing a fatal fall of temperature is well exemplified in experiments on rabbits with chloral hydrate. An ordinarily fatal dose

given to a rabbit whose external temperature is maintained by artificial means has little effect when compared with the same dose given without the employment of external warmth.

Reviews and Notices of Books.

On Some Points in the Surgery of the Urinary Organs. The Lettsomian Lectures for 1888.—
By REGINALD HARRISON, F.R.C.S. London: J. & A. Churchill.

These lectures, delivered before the Medical Society of London last January, have already appeared in the London medical journals. Anything coming from such a recognized authority as Mr. Harrison on the surgical disorders of the urinary organs is worthy of great attention. The lectures are practical, giving the author's own experience and opinions. The first lecture treats of Urine Fever, Toxic Urine, and the Treatment of Urethral Stricture. He thinks the term "urethral fever" misleading, and prefers the term "urine fever," and proves by the citation of cases that the fever and other grave symptoms never occur after traumatism of the urethra until the urine has come in contact with the wound. So to avoid this urine fever after internal urethrotomy, Mr. Harrison advocates drainage by the perineum. In fact, Mr. Harrison's operation is a combined internal and external urethrotomy. In his hands the treatment has been most satisfactory. If urine was pent up, however, owing to the drainage not being free, then urine fever supervened.

The second lecture describes the pathology of enlarged prostate and the author's treatment of the various complications arising therefrom. He throws out the suggestion that the large prostate which exists in man is due to his assumption of the erect position, and that it represents the chief means of retention and support for the contents of the male bladder. Enlargement of the prostate he looks upon as more or less compensatory, and when in excess of what is required proves detrimental to the individual. In certain cases of enlarged prostate which are

difficult to catheterize, Mr. Harrison advocates drainage of the bladder through the perineum for from six to ten weeks. In doing this he divides the prostate to one side of the median line. After weeks of drainage the catheter can be easily introduced and occasionally, after the perineal wound closes, regular catheterism is not found to be necessary.

In the third lecture the author deals with the operative treatment of stone and tumors of the bladder. In speaking of supra-pubic lithotomy, an operation which is much discussed now-a-days, he holds that, although suitable for certain cases, as removal of large stones and foreign bodies, it is not going to supersede perineal lithotomy.

We have only hastily glanced at a few points of interest brought forward by Mr. Harrison in connection with surgical diseases of the urinary organs in order that our readers might form some idea of the great interest and value of these lectures which have been perused by us with much pleasure and profit. We heartily recommend this small work to all surgeons interested in the subject of which it treats.

The Surgical Diseases of the Genito-Urinary Organs, including Syphilis.—By E. L. KEYES, M.D.
New York: D. Appleton & Co. 1888.

This, as stated in the title-page, is a revision of Van Buren's and Keyes's text-book upon the same subject. The work has been entirely rewritten. The surgery of the bladder and kidney, litholapaxy, and supra-pubic lithotomy are dealt with for the first time, and a very short, sketchy account is given of the operations on the kidney. In speaking of the operation of supra-pubic lithotomy, Dr. Keyes now advocates suturing the bladder wound, although formerly he was opposed to this practice. In his last three cases he has drained the bladder through a perineal puncture with tube tied in. He performs the perineal operation by puncture with a sharp bistoury or a staff with a broad groove; through this puncture he passes a probe, to which is attached a drainage-tube, and pulls it through by means of the abdominal wound. He leaves the perineal drain in for about a week. In

many places the descriptions of various operations are not very full. Cystitis is very hastily glanced at, and nothing is said of the modern methods of treating tuberculous diseases of the bladder. The work covers too wide a field, and so necessarily treats of many things in a superficial manner. On the whole, however, the subject-matter is well up to date, and the book will be found a very useful and trustworthy companion for the surgeon as well as the general practitioner. It seems to us to be a mistake to retain the second part on Syphilis in this practically new work. It would have been much better to issue it as a separate volume. The book is well printed and fairly illustrated.

A Treatise on Dislocations.—By LEWIS A. STIMSON, B.A., M.D., Professor of Clinical Surgery in the University of the City of New York; Surgeon to the New York, Presbyterian and Bellevue Hospitals, &c. With 163 illustrations. Philadelphia: Lea Brothers & Co. 1888.

About five years ago a very creditable work on "Fractures" emanated from the prolific pen of our present author, and now he offers the sister volume on Dislocations. The author claims to have corrected a number of errors, some of long standing and wide circulation, which had been handed down from author to author and blindly accepted by each in turn. The part devoted to non-traumatic (congenital and spontaneous) dislocations is very fully written up. The illustrations are very good, and many of them quite original. Especially as a book of reference for teachers, it will be found of considerable value.

The Rules of Aseptic and Antiseptic Surgery. A Practical Treatise for the use of Students and the General Practitioner.—By ARPAD G. GERSTER, M.D., Professor of Surgery at the New York Polyclinic; Visiting Surgeon to Mount Sinai Hospital and the German Hospital, New York. Illustrated with 248 engravings and three chromo-lithographic plates.

Dr. Gerster is evidently an ardent disciple of Lister, at least as the German school interprets him. His favorite antiseptic is

therefore, of course, the bichloride solution, which is apparently used without stint. As the title would indicate, much space is given to the subjects of asepsis and antiseptics, the various methods of wound treatment being explained and largely illustrated. Several chapters are devoted to the diagnosis and treatment of Phlegmon and to "Tuberculosis," the latter having reference chiefly to the surgery of strumous joints. Strange to say, a considerable space has been found for "Gonorrhœa and its Antiseptic Treatment," and some half a dozen pages are devoted to syphilis. In our opinion the two latter subjects look somewhat out of place in such a book. Judging, however, from the great number of cases reported, the author has evidently had considerable experience in some departments of surgery.

As a picture book, it would be difficult to conceive anything more complete than this. The photographs of the operator and assistants are, as a rule, very good, although one tires of seeing the same faces often two or three times in the same page, while the patient and the part being operated upon are constantly indistinguishable. We would respectfully suggest to the author that, in the event of a future edition being contemplated, the *personnel* might be obliterated to a great extent and the essential features of the engravings made more distinct and intelligible.

The book will be found of value, especially to general practitioners in remote places, who are unable to reach the great centres for purposes of study and observation.

Transactions of the American Surgical Association.

Volume the Fifth. Edited by J. EWING MEARS, M.D.,
Recorder of the Association. Philadelphia: Printed by
the Association; P. Blakiston, Son & Co. 1887.

This Association, still in its infancy, has already done some excellent work. The present volume of nearly four hundred octavo pages contains some twenty papers and some illustrations, besides the discussions on the various papers. Among the contributors are the well-known names of Agnew, Gross, McGuire, Keen, Warren, Dennis and Packard. The two latter read papers on "Suprapubic Cystotomy," which are well worthy of careful perusal.

Selections.**Three Consecutive Successful Cases of Trephining.**—(Under the care of Augustus Clay, Senior Surgeon to Queen's Hospital, Birmingham.)

CASE I.—J. G., aged six, was brought to the hospital on the 6th of September in a semi-conscious condition, having fallen out of a window, a distance of about twelve feet. Upon examining his head, a simple depressed fracture of the vault of the skull was discovered. The precise situation of the depression was the right parietal bone, a little behind the coronal suture and about three-quarters of an inch from the median line—thus corresponding to the upper part of the ascending frontal convolution. The patient became unconscious, and violent twitchings of the leg, arm and face of the left side soon occurred. The right pupil was dilated and inactive. Pulse slow, but not particularly full. When I saw the child, there was complete paralysis of the arm and leg, although the twitchings still continued in the face. The breathing was stertorous, very slow, and shallow—so much so that it was feared it would cease altogether. The sphincters had relaxed. Trephining was decided upon, and he was hurriedly taken into the operating theatre, where the operation was commenced by the usual crucial incision. It was then seen that a part of the bone, the size of half-a-crown, was simply depressed, with the exception of a linear fracture (half an inch long) situated at the anterior edge of the circular depression. A three-quarter inch trephine was applied, and a disc of bone (just taking in the fracture) was quickly removed, the surrounding bone being then easily elevated. There was a little hemorrhage, which was allowed to continue to relieve the venous congestion; after which the wound was syringed with corrosive sublimate lotion (1 in 2,000), a drainage-tube inserted, and the edges brought together by silver sutures. Dressings of absorbent tissue, moistened with boroglyceride, were used. Almost immediately after the bone had been raised, the left arm and leg became convulsed, and the twitchings already existing

in the face became more marked. In about a couple of minutes all the epileptiform convulsions had entirely ceased, and the pulse and respiration improved considerably. The operation was performed without chloroform, and, before all the sutures could be introduced, consciousness had so far returned that the boy cried with the pain and raised his hand to his head. Three-quarters of an hour after, the patient answered questions, and in an hour he asked for some water to drink. On the second night the little patient woke up suddenly and complained bitterly of pain in his head; however, he soon went to sleep again, and was quite lively and playing with some toys next morning. On the fifth day his bowels were obstinate, and there was a slight elevation in his temperature, which was otherwise normal throughout. The head was dressed daily with iodoform gauze, and the drainage-tube removed on the fourth day. The patient made a rapid and uninterrupted recovery; but, on account of his inordinate appetite and his "rumbustical" nature, he was not discharged until six weeks after the operation.

CASE II.—E. B., aged 26, was admitted on July 10th, 1887, about an hour after having received a blow on the head with a stick. At the time he was struck he did not appear to be very badly injured, as he was able to walk some distance to a neighboring surgeon; but on reaching the house he fainted, and was forthwith sent to the hospital. On examination, there was found, slightly above and external to the left frontal eminence, a vertical linear wound, one inch in length, which led down to a depressed and comminuted fracture. The patient was very drowsy, but could be roused by speaking loudly to him. His statements and answers were incoherent, and he only desired to curl himself up and sleep. There was no paralysis nor monospasms; but before the arrangements for the operation could be completed he became comatose. The original wound was enlarged and intersected by another at right angles, when it was found that a fragment of bone, one inch by three-quarters (consisting of both tables) was driven into the skull. This aperture was conveniently enlarged by a chisel, and the piece of bone above referred to, with several comminutions of the inner table, suffi-

cient to cover a florin, were removed. The dura mater was perforated, the brain contused, and covered with blood at the seat of the injury. Perchloride of mercury lotion (1 in 2,000) was used; a drainage-tube inserted; stitches being put in the scalp only. Absorbent gauze, moistened with boro-glyceride and covered with gutta-percha tissue, was the dressing employed. A saline purge was administered six hours after the operation. The diet consisted for ten days of milk and soda-water, after which fish was allowed. The head was dressed daily. The wound healed primarily, with the exception of the part in contact with the tube, which was shortened at each dressing, and finally removed on the fifth day. On the eighth day the temperature, which was otherwise normal, rose to 100° ; the patient seemed somewhat depressed, and complained of pain in his left eye. The eye was kindly examined by my colleague, Mr. Priestley Smith, who reported it to be healthy. From this date the patient progressed very satisfactorily, and was discharged on the eighteenth day from the injury. I saw him four months later, when he was quite well, and had not experienced a bad symptom since he left the hospital.

CASE III.—J. R., aged 36, was received as an in-patient on October 27th, 1887, having met with an injury to his head. He was quite conscious, and gave the following account of the accident: While at work with a forge-hammer, a pin or bolt required to be readjusted, and he stooped down for that purpose. Unfortunately, he reached too far forwards, and so placed his head partially between the steam hammer (weighing 10 cwt.) and the anvil. The blow was directed obliquely, the force knocking the patient from under the hammer and against another part of the machinery, causing a small scalp wound over the occiput, but not exposing the bone. He was stunned for a while, but soon recovered himself, and walked to one of his fellow-workmen for assistance. On examination, there was found a contused wound of the forehead one inch and a half long over the left frontal eminence, and the bone in a corresponding situation was found comminuted and depressed for nearly a similar extent. Hemorrhage had taken place beneath the conjunctivæ and into the

eyelids, which soon became discolored and so prominent as to obstruct the sight; there was no paralysis of the orbital muscles, nor hemorrhage from the nose. The patient was placed under chloroform, and an incision one inch long was made at right angles to the original wound, but only intersecting one side of it. The pericranium having been raised, a three-quarter inch trephine applied, and the disc removed, six pieces of bone, varying from one inch and a quarter in length and half an inch in width were then taken away. It was observed that the bone on one side of the cavity was fractured and depressed (after the manner of "gutter fractures"), but was not quite separated. This was with some difficulty elevated, and allowed to remain. A linear fracture extended antero-posteriorly for some distance beyond the seat of the depression and the limit of the incision. The dura mater apparently was not injured. The wound was antisepticated with lotio hydrarg. perchlor. (1 in 2,000), five silver sutures put in the scalp, and a drainage-tube inserted. Dressings were similar to those used in Case II. The tube was shortened daily, and permanently removed on the sixth day. The patient got up on the fourteenth day of the accident, and was discharged three days later, having made a most uneventful recovery.

Remarks by Mr. Clay.—Case II is very interesting from a surgical point of view, inasmuch as he was trephined eleven years previously by my colleague, Mr. Wilders. He had a "buffer" injury to his occipital region, causing great comminution and depression. As far as I am able to learn, this case is unique for its double successful trephining.—*Brit. Med. Jour.*

A Case of Intestinal Obstruction, with Rupture of the Bowel.—W. V., a grocer's assistant, aged about 29, sent for me early one morning in July, '85. He stated that on the previous evening, when chopping up firewood, he felt a pain in the stomach, which had continued until morning. There had been slight sickness, but the bowels had not acted for twelve or fourteen hours. I found the patient in bed, complaining of pain in the hypogastric and right inguinal

and lumbar regions. The pain was increased by pressure in the hypogastric region. There was no marked dulness or tumor. An aperient pill and dose of castor-oil were given, but both were rejected with vomited food. The castor-oil was repeated, and one pill of opium (half a grain) and belladonna (quarter of a grain) given every three hours. In the night vomiting was distinctly greenish and sour. As there was no action of the bowels, an injection of soapy warm water, castor-oil, and turpentine was given. This succeeded in clearing out the colon, and it was followed in six hours by a very slight action. Vomiting continued every few hours. The abdomen was increasingly tender, and there was dulness over an area of four or five square inches to the right of the umbilicus, and three inches below. There was slight tympanites. No improvement followed, and the patient having been removed to the hospital, it was decided at midnight (four days after first symptoms) to operate. The patient was almost moribund, the abdomen was greatly distended; temperature 104.5° ; pulse 135, and quite characteristic; respiration was short, rapid and labored. The A.C.E. mixture was administered. The usual median incision was made through the abdominal wall, and afterwards carried two inches above the umbilicus. (By the courtesy of the surgeon of the hospital, I was asked to assist in the operation.) The peritoneum was carefully divided on a grooved director. No sooner was the abdominal cavity thus laid open, than out there gushed a large volume of horrible fæcal gas, followed by a copious outflow of thin yellow-greenish fluid, containing a quantity of flakes of lymph, and bits of fæcal matter. The small intestines were distended with gas. The peritoneum was intensely injected. We baled out the abdominal cavity with a teacup. Then slight bilateral pressure caused a small fountain to well up from the deep part of the abdominal cavity. Taking this fountain for my guide, I passed the index finger of my right hand through the aperture into the bowel, upwards and downwards. I strongly advocated resection, but was overruled, and consequently sewed up the parietal wound. The man to all appearance seemed on the point of expiring. The wire sutures all in turn gave way, quantities of

faecal matter and fluid continued to escape from this wound for several weeks. The ruptured bowel became disengaged, and rose to the surface of the parietal (operation) wound. The latter became agglutinated in a mass of granulations. The abdominal cavity was once more restored. Faeces passed *per anum*, and the patient, passing through a long convalescence, escaped with a very small fistula, the size of a hempseed, and is now otherwise in the enjoyment of perfect health and strength.—*Dr. T. P. Harvey, in Brit. Med. Journal, April 28, 1888.*

A Case of Intestinal Obstruction; Localised Peritoneal Suppuration. INCISION, WASHING OUT, AND DRAINAGE; RECOVERY.—(Under the care of Mr. Walsham, St. Bartholomew's Hospital, London.)

R. D., aged 32, was admitted on January 20th, 1888, under the care of Mr. Walsham, to whom he had been sent on the recommendation of Mr. T. H. Evans.

On the evening of January 18th, while sitting still after an ordinary meal, he was seized with great pain in both inguinal and umbilical regions, accompanied by swelling and tension of the lower part of the abdomen and rumbling flatus, followed by retching and sickness. The vomit began to be stercoraceous on the morning of January 19th. He had suffered from inguinal hernia on the right side since he was two years old, and wore a truss till he was seven. During youth and ever since he had been troubled with occasional attacks of giddiness and vomiting until about six or seven years ago, when they gave place to attacks of abdominal pain, centering in the umbilical region, transient in character, and unattended by intestinal obstruction. The hernia had frequently descended, but had never become strangulated, and had always been replaced, though often with difficulty. No blood had ever passed *per anum*. Four months ago he was seized with pain and swelling in the abdomen, with inability to pass motions; this condition was preceded by motions of small calibre for about two days; it lasted ten days, during which salines were given, and then a drastic purge. The illness left him very weak. The motions had since been no thicker

than his little finger, and passed generally twice a day. He had repeatedly of late tried to do his work, which was laborious, but was always disabled by increase of pain in the abdomen. His family history was good.

When admitted, the patient looked pale and ill, but said he had always had great muscular strength. There was moderate distension of the abdomen, with some muscular tension, equal on both sides, but with slight fulness over Poupart's ligament on the right side. On percussion, there was comparative dulness in the right inguinal region. The pain was also greatest there, but was great everywhere below the umbilicus on the slightest pressure; there was dull pain at all times. The rectum was normal. No hernia could be felt, and the external ring was enlarged. The vomit of the previous night (small in quantity) was thin and bile-stained. No fæces had passed at all during this illness, but a little flatus after an enema. The breathing was shallow and mainly thoracic. The temperature was 98° , rising to 100.4° at 1 P.M.; pulse 108; respiration 24; urine acid, specific gravity 1035, slight albumen. The abdominal organs could not be examined owing to tenderness of the abdomen. Tongue fairly clean. Opium and belladonna were given; small quantity of ice to suck; no food.

From this date up to January 27th, the abdomen continued in much the same condition, the tenderness and swelling, however, becoming more localised to the right iliac fossa, and the skin in this region appearing mottled-red and very slightly oedematous. After an enema, given on January 24th, a scanty motion was passed; and from this date till the 27th several motions were passed daily. He was given at first only half a pint of whey a day, but subsequently half a pint of milk was added to the whey, and still later increased to a pint, as the vomiting did not return. The temperature never rose above 101° , and varied from day to day between this and normal. The pulse continued of fair volume, and varied from 88 to 112.

Jan. 27th.—After a consultation with Mr. Willett and Mr. Baker, Mr. Walsham decided to explore the abdomen in the right inguinal region. An incision was made, beginning half an

inch above the middle of Poupart's ligament, and running parallel to it outwards for two inches. The abdominal muscles having been severally divided, the peritoneal cavity was carefully opened and about a pint of dirty yellow pus, with a strong fæcal odor, was let out. The cavity was irrigated with a solution of iodine, decolorised with carbolic acid, till the fluid flowed away perfectly clear. It was then found that the cavity was bounded by highly inflamed and matted-together coils of intestines. The cavity extended towards the middle line, but in a downward direction further than the finger could reach, and into this the irrigating tube was passed for about eight inches. A similar sinus, between coils of adherent intestine, also extended in an upward and inward direction, and further than the finger could reach. A large-sized drainage-tube was placed in the cavity, and the wound sprinkled abundantly with iodoform and dressed with iodoform gauze and wool. On the morning after the operation, the temperature had fallen to 98° , and the pulse was 100, of fair volume and strength. Locally the wound appeared quiet, and the washings from the cavity were clear. There was no pain nor tenderness, the patient expressed himself as feeling very comfortable, and was in excellent spirits. From this date he made a progressive and uninterrupted recovery. The tube was gradually shortened as the cavity slowly closed from the bottom.

On February 1st, slop diet was changed for fish, which was on the 3rd replaced by meat diet. On the 15th the wound had healed, and the patient was discharged in excellent health and spirits to the Convalescent Home at Swanley.

Remarks by Mr. Walsham.—The cause, I believe, of the obstruction was inflammation in and around the cæcum; and, from the frequency with which, on post-mortem examination, such recurring attacks of typhlitis have been shown to depend on mischief of some kind in the vermiform appendix, it is probable that this might be the primary cause. On the patient's admission, the question of opening the peritoneal cavity in the region of the cæcum and exploring the condition of the parts was raised; but, on the whole, it was considered, at a consultation that was held, that it would be better to wait for a few hours.

As, under the influence of belladonna and opium, and the total abstinence from all nourishment, the acuteness of the symptoms subsided, the vomiting ceased, and the bowels were relieved, while the general pain and tenderness over the abdomen became less, the exploratory incision was put off till it became fairly clear that suppuration had occurred. From the condition of the cavity when the peritoneum was opened, and the length of the sinuses extending amongst the inflamed intestines, it was evident that there was extensive peritonitis, involving more or less the lower half of the abdomen. In one direction the irrigating tube was passed fully eight inches into the peritoneal cavity amongst the intestines, and the lower portion of the peritoneal cavity was thoroughly washed out. The case was clearly more than one of a mere localised peritoneal collection around the cæcum; and although the inflammation undoubtedly started at this spot, it had extended, as manifested both by the symptoms and the state of the parts found at the operation, more or less over the whole of the lower half of the abdomen. This case in many respects appears similar to those described by Mr. Treves, Mr. Marsh, and others, and is, I think, another example of what may be accomplished by washing out in suppurative peritonitis.

On two other occasions I have opened the abdomen for peritonitis, and attempted washing out. In neither of these cases was there suppuration. I found the sticking together of the coils by the lymph prevented the free passage of the irrigating fluid amongst them, and in no sense could a thorough washing out of the peritoneum be said to have been accomplished. The condition of the patients was too serious to permit of any extensive exposure with a view of supplementing irrigation by sponging. Both cases ended fatally. In such cases, I fear, little can be expected from this procedure.

A Sketch of the Progress of Surgery.

—From the broad field of surgery there are many lines of inquiry which might interest its devotees if properly followed. But to treat of any one of them implies special study of the new developments that now abound in the great advances in

the arts and the sciences whose discoveries it employs. On a former occasion your reader occupied the same relation to you that he does at this moment. He then prepared himself for the occasion by a series of experiments *in corpore vile*, to illustrate the subject of blood infusion. He believes he had the good fortune to add a thought to knowledge on this topic. It seemed to him that a general view of the relation of surgery, and the surgeon, to the community in which he lives and has lived might be of sufficient interest to justify the spending an hour in its review. This must revive well-known stories, and allude to present movements familiar to all; but they contain triumphs which always stir the heart of the true surgeon. Pope in his mellifluous couplet, which has pleasantly rung in the ears of every physician from his youth up, has interpreted the views of Homer of three thousand years ago, when he sang that

“A wise physician, skilled our wounds to heal,
Is more than armies to the public weal.”

Then, as now, the surgeon was most prominently connected in the public mind with the treatment of wounds of accidents, or those of his own making.

Recurring to the subject of wounds, we can, perhaps, at no one point get a better illustration of the movement of discovery than in the changes with reference to their management, and especially of those that the surgeon inflicts in performing the amputation of a limb. It would be idle, in the few minutes at my disposal, to follow accurately even this one line. The attempts at primary union have seldom been other than partial, until the advent of the modern antiseptic methods. In the early part of this century, experiments upon the encysting of ligatures for closing the arteries were tried and abandoned. The movement from the open wound, of necessity, to the closed one antiseptically treated with soluble ligatures and sutures has been long and slow. We had almost come to the definite conclusion to make the open wound as the final judgment of the profession. Hippocrates avoided amputation except in cases of gangrene. In his day it was full of terror. Indeed, there could not be said to be any amputation as we understand the process. Limbs

that were crushed or injured by compound fracture were allowed to get well or to mortify. When gangrenous, after the red line was formed, it was made at the border that Nature had decided on as the place of separation between the dead and the living. Such delays in the treatment of severe injuries, with our knowledge, would be simply criminal. But when gangrene has occurred, and we wait as we must, except in certain rare conditions generally understood, I am in accord with the custom of Hippocrates. This places me in contrast with a practice almost universal. But, singular as it may seem, an antiseptic dressing will complete the measure of safety incident to the amputation through the dead part.

Reasons for this belief are easily stated, and, of course, are not those founded on the fear of amputation through the living parts as a general measure. But when the red line has formed, Nature has already made the amputation. Following an irregular line, which is lowest down in the integuments and bone, the separation has been made between the dead and the living tissue. The danger arises from the retention of poisonous fluids in contact with tissues now full of vitality. An operation of necessity can be made, closely following the line of demarcation, and it will be found that the endosteum retains its vascularity nearly, if not quite, as far down as the integument does. These are the two factors of an amputation indispensable to its success. The muscles, and especially the fascia and aponeuroses, as well as the periosteum, are apt to die. Deep recesses following the connective tissue will be filled with pus and septic fluids. The amputation may be made as described, with far better hope of success, than higher up through the living tissues. The special dangers of amputation through them are avoided. There are no vessels to tie; there is no fresh absorbing surface to be poisoned by its own secretion, there is no danger from hemorrhage, and more than all, in the enfeebled condition of the patient, there is no shock. The deep recesses are now exposed and can be cleansed. Absorbent cotton, moistened with a solution of mercuric chloride, pushed into the open spaces, at once attracts, by capillary attraction, all the fluids. When the suc-

ceeding dressing is undertaken, it will be found that every part has the appearance, and, indeed, the reality, of having been washed clean. The irregular surface is, however, a granulating one, and for this reason alone has become one that is essentially protected from the dangers of sepsis as soon as a free escape of the fluids can be effected. The periosteum, if destroyed, may result in necrosis of the outer shell of the bone. But the endosteum will maintain it in its integrity sufficient for the length of the stump. The wound being necessarily an open one, closes slowly.

It will be seen that the observation which I urge upon your attention is a return to the ancient method, with two thoughts added to it, which, in my judgment, should change our practice in these cases. They are, as every surgeon knows, fraught with great danger when the amputation is made above, in the living tissue, for the shock of amputation in the enfeebled state is frequently fatal. The custom of the ancients was to pick away the dead part and divide the bone high up. They were anxious to disarticulate if the line of separation had gone to a joint. One stands aghast at the shapes their stumps must have assumed. In recommending the open wound in these cases, I only do so at points where a proper stump can be made. Take, as an illustration, gangrene commencing in the foot and stopping on the leg four or five inches below the knee. According to our custom, the amputation must be made through the thigh. But the danger of such an amputation is vastly more than by the Hippocratic method, at the red line, and the lower stump is far better. The choice, in my opinion, should be made at the red line, if possible.

The advent of the gunshot wound occurred at a time when the practice of surgery was at a low point; and the effect of the "villanous gunpowder" was regarded with just grounds of terror. The terrible results were ascribed to poison. Both the lead and the gunpowder were poison. How could such fatality occur unless from poison? Poison wounds should be treated with the hot cauterizing iron or boiling oil to destroy the infected surface. The bullet must be extracted, if it be possible; its poisonous character could scarcely be borne by the constitution. The

surgeon with such views would be apt to complete the work of the soldier. But time reforms medical as well as other opinions. If easily extracted, all foreign bodies should be removed, even with the present views of the innocuous character of the bullet. This has always been accepted, and expectation has been the practice for a long time. But now we have antiseptics of the track and careful covering of the wound to guard against microbial invasion. How far, this may be carried is yet unknown, but great advance has already been gained. It is, however, of recent date that the greatest steps have been taken in the management of this special form of wound. Among the most notable are those announced from this platform. The facts are all known to you. The great cavities of the body have heretofore been deemed unapproachable. It was believed that the surgeon, if he undertook their exploration, would render certain what was almost sure to happen. In gunshot wounds of the abdomen there might, perhaps, be one life saved while ten were lost. Why should this meagre hope be denied?

But all this is changed. I do not report, but only allude to the marvels that are detailed by Drs. Parkes and Senn, marvels that we could only know by the use of vivisection, which, fortunately, has not yet been submerged under a sea of maudlin sentimentality. Here, again, we have the triumph of cleanliness. A gunshot wound of the intestine will inevitably result in the expulsion of some of the contents of the bowels, the vermicular motions of the intestines will surely secure this result, even if, after a while, these motions are arrested, in obedience to the law of inflammation. The cases of recovery were probably those where a fortunate apposition of the wound near the abdominal walls circumscribed the area of pollution and Nature's active efforts at repair completed the line of circumvallation. The case of the insane woman in Utica Asylum who punctured the abdomen and drew out a piece of the small intestine, fourteen inches long, and cutting it off with a pair of scissors, threw it on the floor, is widely known. The physician in attendance knew of nothing but expectation in such an emergency. He drew the edges of the abdominal wound together, and waited the event.

No remarkable symptoms supervened. The recovery was complete. Many years after, an autopsy revealed the fact that the edges of the intestinal wound had been fastened to the abdominal wall. But such results are too rare to be guides of conduct. The new methods are already accredited with improvement, and as the courage and better diagnosis of the surgeon improve, we shall inevitably place the treatment of these wounds by laparotomy upon a sure foundation.

Every surgeon has seen cases of strangulated hernia where gangrene has supervened, and will bear testimony to the fatal character of the injury. Now, for the relief of this condition enterorrhaphy comes in to take its place as a recognized operation, with large increase in the saving of life. Again, cleanliness is the pivot upon which the whole movement turns. It seems incredible that the peculiar kind of filth that invades the peritoneum in gunshot wounds of the intestine can be removed sufficiently to secure even such results as have been obtained. Antiseptics of proper strength over this immense surface are dangerous expedients. Are we to see a stream of distilled water, rendered properly saline, carried into and out of the peritoneal cavity long enough to insure cleanliness? Are we to irrigate the surface after inflammatory exudates have actually appeared? The possibilities seem large. That these exudates, when extensive, may accompany a fatal inflammation without the formation of the dangerous ptomaines of microbial creation, it seems to me to be manifest. In the experiments by Dr. Parkes on dogs, one fact is to be especially noted: the frequency of the existence of entozoa and their migration through the wound. It has been my fortune to witness two deaths from rupture of the intestine by external force, without a wound of the abdominal wall, not even a break in the parietal peritoneum. One was in a child of six years of age; the other in a man of forty. The child died in twenty-three hours, and the man in twenty-six. Autopsy revealed a fact exactly the same in each case. The fibrinous exudate of a character sufficiently firm to be lifted upon the handle of the scalpel had extended over the whole surface of the peritoneum, even to its remotest corner. It is a little odd, also,

that a single lumbricoid worm had crawled through the opening in both cases. The fibrinous material had probably acquired its firmness many hours before death. It is hardly credible that much pathological change could have occurred during the latter hours of life.

Just fifty-one years ago, during my student days, I had the pleasure of an invitation from Prof. Mütter to witness the first operation on the tendo-Achilles in Philadelphia, and, as I believe, on this continent. It was his second operation. The antecedent one was upon the ham-strings. Still a young surgeon, he was especially patronized by Dr. John Rhea Barton, who, upon the then recent death of Dr. Physick, was by common consent recognized as the surgical chief of Philadelphia. Dr. Barton protested vehemently against the operation and refused to witness it, being unwilling to give his countenance to anything that was so dangerous. It would certainly blight Mütter's prospects in life. Moreover, the interests of the patient should stand first and he could not be a party to anything so contrary to good surgery. The great fact of the immunity from suppuration when subcutaneous incision is made had not yet impressed itself upon the surgical mind. The vast value of direct repair had acquired its recognition under the guidance of John Hunter, but the value of the subcutaneous cut was not appreciated. This marks one of the most magnificent of all surgical movements. The rationale was to be explained to-day. Antisepsis is the legitimate descendant of the subcutaneous cut. The tenotome would almost surely be cleansed as it passed through the skin, and the minute wound would be washed by the few drops of extruded blood. This was clearly our antisepsis. Was not Dr. Barton justified by his experience? With our knowledge his conclusions reached the depth of absurdity. But had he not seen tendons sloughing when exposed to the air? Had not cases enough of accidental incision of the tendo Achillis been reported to prove that if the life, always in danger, was preserved, the limb was likely to be useless from the loss of its great tendon? The surgical world woke to a great fact, and strabismus, torticollis, and all contracted tendons came under the surgeon's knife,

until it became almost a craze, when Guérin, for the relief of lateral curvature of the spine, cut every spinal muscle and tendon that he could define, until the chain of bones could be moved like a serpent's back.

At the meeting of the New York State Medical Association last September I led the discussion upon the proper method of treating compound dislocation of the ankle-joint. I found the opinions of surgeons on this point very indefinite, with a strong, even an uncompromising judgment in favor of amputation; notably by Prof. Gross, who would make rare exceptions to this plan. Others advised reduction and a few relied on resection, some of the tibia and fibula with removal of the ends of both bones with their malleoli, while others removed the surface of the astragalus also. Even the most modern writers left the whole subject in a vague way to the judgment of the practitioner. These authors were quoted to show their various opinions, but it would be out of place in this paper. For a long time I had been convinced of the great wrong inflicted by these teachings, which were founded on the statistics of hospitals in large cities before the day of antiseptic surgery. Such advice was even then not applicable to the condition of life in the country and smaller towns, where purer air and better constitutions existed together. I had used resection with good results in three cases, and had seen two cases in consultation which had been simply reduced by the surgeon in attendance. The latter made good recovery after a considerable constitutional disturbance, but by ankylosis. But before writing my paper, I had the good fortune to see a case that had been treated by a young friend (Dr. P. G. Udell), which seemed to me an almost ideal result. The foot, movable through a little more than half its normal extent, and free from pain in walking, was enabled to execute its function by the formation of a flail-joint after the resection of an inch and a half of the tibia and fibula. The novelty of the method consisted in leaving the two malleoli attached to the astragalus and bringing their fractured extremities in contact with the resected end of the bone. Granulation was the result, of course. Drainage and carbolic acid solution were employed to secure antiseptic results.

Six months reflection and experience have induced a change in my opinion as to resection of the malleoli in these cases. I would now, in nearly all, reduce and rely on cleanliness and antiseptis. There are cases, of course, where the crush is so severe that there can be no doubt. But when the rupture is great, better opportunities are given for the inspection of the surfaces than when the opening is small. The resection may be secondary and the amputation tertiary.

The microbial discoveries of Pasteur and Koch and their disciples have placed all of our therapeutics on a new basis. The subject is trite, we hear of little else. No one knows when a real discovery is made how far it will reach. It always seems to run like a thread through the woof of all knowledge. How can we measure the scope of a piece of glass ground to a lens? The spectroscope was a mere philosophic toy at first; what now? The analyst of the sun as well as of the blood. No one can now measure the possible triumphs of surgery. That which was excellent yesterday must be abandoned to-day. I confess, after long years of practice, to a delight that has the glow of youthful enthusiasm when making a resection of the knee under the use of mercuric chloride, and closing up the wound with silk sutures and applying drainage-tubes in each corner of the wound and then covering the whole with absorbent cotton saturated with the same microbial enemy; to remove the whole at the end of two weeks with complete closure, every suture encysted and not a drop of pus. Of course there was no fever, only physiological repair. Or even to witness, perhaps, a more difficult feat in a much more common condition, the neat apposition of the tissues of a hand lacerated by machinery, while a stream of the antiseptic solution flows over every part, and the retention of these tissues in their proper position is effected by sterilized catgut, the whole protected with absorbent cotton saturated with the solution. At the end of a fortnight the sutures have disappeared, the repair complete, without a drop of pus. Such are now the experiences of all of you, and need no enlargement of statement. The surgical atmosphere is now antiseptic. Lister must now take his place beside Jenner. For the time he has

added a word to the language, and we do not mean merely carbolic acid and the spray when we speak of Listerism. There is already a wide range of material to choose from.

It is, however, obvious that there is a constant tendency toward the employment of the mercuric chloride, notwithstanding the objection raised by Prof. Billroth and his preference for iodoform. Its accessibility, its inodorousness and enormous power as a germicide will easily account for this. The natural fear of its powerfully toxic effect has rendered us all cautious, but more knowledge of good methods is expanding its application.

Who has not dreaded the care of a compound fracture of the thigh? But now we have report by Professor MacEwen of one thousand cases of osteotomy and no bad results. Who a few years since could have accepted the statement that the bone could be cut and crushed, the surface broken and driven into the texture of the bone above and below, and yet remain absolutely free from the danger of necrosis and ready for union? The operation is essentially subcutaneous. But Dr. Hahn of Berlin boldly incises the soft parts and exposes the surface of the tibia under a stream of mercuric solution, regarding this operation as secure as the subcutaneous cut, and as the parts can be seen they are more susceptible of proper management. In all these cases merely the quiet necessary to physiological repair, with its antiseptic covering, comprises the after-treatment. Its simplicity and rapidity of result amaze one. Perhaps, however, the best illustration of the value of the treatment that renders wounds aseptic is to be found not in those that MacEwen has made, but in those that have resulted from accident, which we recognize as compound fractures. They are at the deepest part of the limb and present every form of wound in the same case known as incised, punctured, lacerated, and contused. They have always been the terror of the surgeon.

At present the record of the triumphs of antiseptic surgery flows from every hospital. It would be burdensome to quote much, but the tables of Volkmann give at a glance the whole history of the modern leap in surgery. It has always been the misfortune of old hospitals to be the places where the greatest

mortality would ensue when a wound was to be treated. It is not necessary to enforce this statement by any large collection of statistics, but I cannot pass by the consideration of this subject without quoting the extraordinary tables of Volkmann. He has collected the facts from the hospitals of Germany and England, and found that the results in all were similar in a very remarkable degree. He found that of 885 compound fractures of the limbs, 339 deaths resulted, whether preserved or amputated, being $38\frac{1}{2}$ per cent. This in civil life. In military hospitals the percentage was $23\frac{6}{10}$. The difference may be easily accounted for by the fact that many of these were recently constructed and often extemporized, and also that the average age of the subject was during the firmest periods of life. The approximation in results in the various civic hospitals is shown very simply.

In Gottingen,	the mortality was	38	per cent.
In Zurich	“ “ “	$38\frac{7}{10}$	“
In Breslau	“ “ “	$40\frac{5}{10}$	“
In Halle	“ “ “	$40\frac{6}{10}$	“
In Bonn	“ “ “	$41\frac{8}{10}$	“

Since the adoption of an antiseptic method, Volkmann makes report of 75 cases in 73 patients with compound fractures and many with injury of the joint, and not a single death. Of these there was the extraordinary number of 21, or 28 per cent. of all cases; 11 of these were treated conservatively, and there was but 1 that resulted in ankylosis; 1 was a shoulder-joint which was resected; the elbow-joint was opened six times, of which there were made one primary and three secondary resections; 2 were treated conservatively; the knee-joint was opened four times and treated conservatively; the ankle was opened 6 times; 2 were treated by secondary resection; 1 by amputation; 3 were treated conservatively. The management was simple. In the first place protracted drenching with water, the removal of spiculæ and trimming sharp ends of bones, enlarging the wound always enough to allow exploration with the finger, and then causing it to gap by retractors, while the drenching was going on, not stopping until the last coagulum was disposed of; then completing the irrigation by a drench of carbolized water. After

the proper replacement of parts the whole was covered with abundant layers of carbolized gauze, and kept free from accumulation of fluids by drainage tubes. Most of the cases were seen a few hours after the injury. Five, however, were treated after a delay of forty-eight hours.

The great achievement of the day, however, is by common consent the marvellous growth of laparotomy. During my early career, the removal of an ovarian tumor, notwithstanding MacDowell's success, was stigmatized as murder, which, indeed, it seemed very often to be. Dr. Atlee was fiercely denounced for his efforts to bring this operation into the ranks of legitimate surgery, which he lived to see fully established. But through what a valley of death have the wonderful results been obtained. It is now but fourteen years since Keith electrified the whole surgical world with the report of ten consecutive cases and only one death. Two years after Dr. Atlee remarked to me, after performing an operation of this kind, that if it should succeed it would be the tenth consecutive good result. It, however, failed. By what slow approach have we arrived at the present simplicity of operating. The manipulation is simple, but delicate beyond the necessities of ordinary surgery. How difficult to apply what we call experience. Surely every surgeon had seen enough of the danger of opening the peritoneum, to fear its terrible inflammation, which we have often seen run over the whole immense surface, even to its remotest recesses, beginning at a wounded point. Experience was ample. How could we dare to defy the results of such knowledge? But from the recognized fatality of the tumor, and the distressing condition under which life was maintained during the latter period of its existence, we should have known but little of the dangers to be avoided and how to combat them. How long a time it required to learn that, after all, it was not peritonitis that we were chiefly to fear. We had to learn that the whole immense surface was but little else than the expansion of the lymphatic system, as the skin is of the nervous one. And when the blood, mixed with the contents of the sac that had been left behind, excited first a secretion from the surface for their solution preparatory

to their absorption according to the natural law for their disposal through the blood, we encountered on the autopsy the fearful red serum.

Too much was to be done. Even our therapeutics misled us. I still accept the correctness of the opium treatment in genuine non-traumatic peritonitis. We owe a great debt to Dr. Alonzo Clark for the careful development of its excellence in this condition. But our pathology was a mistaken one, and I cannot but think that the mortality is increased in the cases first mentioned by the use of opium. How much to unlearn and how hard in the face of our experience?

Who has not looked into the peritoneal cavity during an operation and hardly dared to touch it, preferring to leave some blood and sac contents rather than touch the inflammable surface. But the death of Keith's eleventh case struck the keynote. The peritoneum must henceforth be clean. To our astonished gaze the membrane could be sponged, and washed, and dried, and then it quietly removed the small amount that the sponge could not absorb. From this time the death-rate diminished in the hands of every operator, and the note has become universal that the basis of all antisepsis is cleanliness. Even the exudation from peritonitis must be removed, according to Mr. Tait, who has for this condition washed out the cavity with water that flowed from the city tap, and which, according to a friend with microscopical knowledge, contained "thirty-six different kinds of beasts." "You reject antiseptic medication," said I to Mr. Tait, who replied: "Yes, it is all rubbish; there is but one antiseptic that I know of." "Pray, what may that be?" "Soap and water." Again it is cleanliness. It would be idle to say that surgeons did not esteem cleanliness as going a long way before godliness in operations. But it was not of the precise and thorough kind that was demanded.

I will leave the statistics that Mr. Tait has given us out of our consideration. They transcend those of all others who have undertaken to follow in his footsteps; so as to lead one to believe that there are some problems unexplained. The operation for the removal of an ovarian tumor is by common consent, in its

various conditions, at times the most difficult one of execution that ever comes under the hands of the surgeon. At other times it is the type of simplicity. These circumstances give an opportunity for a wide difference in the results of operative procedure intended to be similar. There is a preponderating opinion that direct antidotes to the processes that seem to control the poisonous results of suppuration increase the percentage of favorable termination in cases that have been operated upon. Their use marks another step in the treatment of wounds accompanied by exposure of the peritoneum. Mr. Tait's results are to be regarded as unique, and surgeons are not likely to omit proper antiseptic measures. We are still in the midst of change, but the splendid record of expert operators, as we all know, has removed this operation from a mortality that seemed murderous to one that is less than any operation of a capital character. That this result has been obtained by constant attention to the action of natural law is too obvious to be denied.

Several years since I removed a uterus containing a fibroid weighing seventeen pounds. The cut extended nearly the whole length of the linea alba before it could be drawn through it. The vessels were ligated on the sides, and then I carried out my device for managing the stump and guarding the peritoneum from the presence of the dreaded foreign body in the shape of ligatures or sutures. A slight incision was made all around the huge mass about three inches from the vaginal junction. This was dissected down and all around to nearly the point above mentioned. The vessels were easily seized and the blood was readily prevented from passing into the cavity of the peritoneum by the cup-like form of the cut. Amputation was made about an inch from its junction with the vagina, and at this point it had, of course, become small. But little blood flowed from this last procedure, for the vessels had already been secured. After hemorrhage had ceased the edge of the cup-like pedicle was pocketed in the linea alba. Thus peritoneal surface was brought against its congener. The intestines had fortunately been kept covered by the abdominal walls. Union of the wound in the linea alba was perfect. A drain down through the neck of the

uterus seemed to me the most perfect of appliances. I fondly hoped that this was all that could be desired. But I had at this time no means of antisepsis. Now Péan, as reported by Dr. Senn, closes over the stump with catgut sutures, after having extirpated the mucus membrane of the neck, and brought the abraded surfaces together by a sort of autoplasty, and drops it back into the pelvis. As an operative procedure this seems to me to be final.

But the exposure of a joint to the atmosphere is far more apt to result in inflammation, with a tendency to suppuration, than the peritoneum. But now we follow the nests of bacilli into the joint with a sharp spoon, and filling all nooks with an antiseptic solution, close the capsule with the assurance of freedom from any active inflammation, especially of a suppurative form. This is surely one of the most extraordinary triumphs of antisepsis.

I must not omit in this sketch the important step in advance that was declared in the papers by Professor Andrews and Dr. Watson, delivered before this Association last year, on the treatment of carious wounds by the use of a solution of hydrochloric acid (1 to 20). *A priori*, every one felt that such a strength of acid must be so irritating as not to be tolerated. But coming from such authority I at once adopted the method, and I desire to say that I regard it as one of the great advances in surgery, free from danger or even irritation, and replete with power. Moreover, we have at the same time an agent that removes the dead and does not injure the living bone, and is also a valuable antiseptic.

Neither must I fail to speak of one of the stages in the progress of research which is marked by the attempt to obtain sterilized air. As we all know, Lister's spray has occupied the largest place for this purpose, with a reputation much waning, and entirely abandoned as worse than useless in laparotomy. Let any one make the experiment of throwing the spray upon a plate of glass for a few minutes, and he will find, by the employment of a lens, that the rush of the vapor has drawn in and deposited upon the glass every floating particle in the atmosphere, thus concentrating the minute foreign bodies instead of dispers-

ing them. Independent of the poisonous carbolic acid, rapidly absorbed from the large surface of the peritoneum, we would make a special deposit of foreign bodies, which, though minute, could be aught but useful. But long before Lister's time, a plan of enclosing the part to be operated on in an atmosphere of nitrogen was attempted. The difficulty of executing the procedure to a successful termination arrested the experimentation. Many years since I myself entertained the hope that benefit would accrue from the pouring of carbonic acid gas over the wound and into the cavity during a laparotomy, thus excluding the atmospheric air. But without sterilized hands and other necessary apparatus the method was comparatively useless, and with the proper antiseptics became comparatively unnecessary.

We also find Dr. Prince sterilizing the atmosphere of the whole operating room, and a Boston hospital supplied by air from the roof, which, being carried to the basement, is passed over heated plates in winter and thence distributed over the building. Burning sulphur is a common method of preparation with which all are familiar. Perhaps we may yet choose a room whose air shall be purified by its passage through sterilized cotton, or through tubes in imitation of Tyndall's glycerine box.

It is the glory of the time that really great men among us are not so marked by a wide separation from their colleagues, such as prevailed one hundred and fifty years ago. Then there was but one John Hunter, and he remained without peer and with few followers. Meeting one of his contemporaries when he was carrying home some pig's feet from market for the purpose of anatomical inquiry, he was sneered at for busying himself about pig's pettitoes. To-day the pettitoes on such a mission would be enclosed in a nimbus. We have now a Koch who leads, but there is a large following close at his heels. We have Atlee and Spencer Wells, but almost at once their followers appear everywhere and outstrip their teachers.—*Address in Surgery, by Dr. E. M. Moore, at the meeting of the American Medical Association, May 10; Medical News.*

The Management of Eczema in Old People.—(Substance of a lecture by Dr. Arthur Van Harlingen, of Philadelphia):—

McCall Anderson has well said that there are few persons who pass through life without having at one time or another suffered from eczema. What the form may be depends very much upon the period at which it occurs. In the infant the acute erythematous, vesicular and pustular varieties are those met with, of which the well-known tooth-rash is a typical example. When we come to adult age we find the vesicular form of eczema in some cases, but rarely the pustular, and we here meet with papular eczema much more frequently. Toward middle age neurotic gouty eczemas, the forms known as eczema rubrum and eczema fissum, with ulcers on the lower limbs and chronic palmar and plantar lesions, are those most apt to be encountered. When we come to old age, by which I mean, generally speaking, the period between sixty years and the end of life, we find eczema assuming a character, and invading localities, which are sufficiently characteristic to allow of separate consideration.

In the remarks I am about to make upon eczema in old people, I intend to confine myself strictly to my own experience, nor do I think that we can find much to enlighten us on this subject in the text-books or the monographs upon this subject as it is touched upon incidentally.

In looking over my private case books I find that I have records of between thirty and forty cases of eczema occurring in persons from sixty to ninety-four years of age. Of these all but two were either eczema erythematosum or eczema rubrum, or both combined. These varieties of eczema then may be regarded as essentially characteristic of old age. They are in reality but two stages in the same process, and very often run into one another. Any portion or all portions of the body may be attacked, although the eruption is commonly confined to some particular part, as the face, the scrotum, or the upper or lower limbs. We not unfrequently encounter eczema erythematosum of the face in old people. Here we have a portion or more frequently the whole face, neck, and sometimes chest, covered as if with a mask by a dusky, red, thickened, infiltrated, scaly skin, weeping and cracking in

its folds, and giving rise to a pitiable amount of suffering in the form of burning, or itching, or both. Next to the face, in fact among my cases as frequently as the face, are the scrotum and adjacent parts the seat of the disease. Here the disease almost always runs on to eczema rubrum, and we have the scrotum and penis swollen, cedematous, with the skin more or less thickened and infiltrated, dusky red, shining glassy, or varnished, and usually weeping abundantly, with numerous cracks and fissures. The adjacent parts of the thighs are likewise commonly involved, and the disease may run up into the groins and over the abdomen, the appearance here presented being that of erythematous eczema, with a dry, hard, scaly surface, save in the fold of the groin, which is apt to be marked by a deep, red, weeping crack or fissure. The legs are a not unfrequent seat of eczema in old people, the disease usually beginning as erythematous eczema and quickly changing to eczema rubrum, with often a very profuse discharge and not unfrequently ulcers. Varicose veins are commonly, though not always, present.

As regards the etiology of eczema in old people, it must be remembered, in the first place, that eczema is a disease of debility. In most cases of eczema that are at all severe, debility, a falling off from the natural vigor of the body, is observed. And the debility of old age is of that nature which particularly predisposes to affections of the skin, whether inflammatory or structural. The changes which the skin undergoes in old age, the atrophy of its upper layers and the partial suppression of its normal secretions, modify the character of many diseases, and eczema in particular. This is apt to take on a sluggish and indolent course and often proves utterly rebellious to all treatment.

Malassimilation is another cause of eczema in old persons. This is manifested by dyspeptic and gouty symptoms, obstinate constipation and loaded urine. Among the younger portion of my old patients, those not much past sixty, I find many self-indulgent persons, accustomed to the pleasures of the table and loath to give up such dishes as they have enjoyed in early life, but are not now able to digest. In these cases the eczema is apt to be very stubborn, as it is difficult

for the patient to go upon a restricted regimen. Repeated relapses are found to occur from indiscretions in diet.

In a certain number of eczematous old persons you will find cardiac valvular disease. The existence of this is, I think, at times an efficient cause in the production of eczema, particularly of the lower extremities, and it certainly affects the prognosis unfavorably.

In eczema of the lower extremities, venous stasis, in the form of and accompanying varicose veins, is a very common cause of eczema in old persons, and this variety of eczema is closely allied to that described above, in the fact that it is apt to be of unfavorable augury. Tilbury Fox first called attention to the circumstances which I have several times found occasion to verify, that eczema of the lower extremities in old persons is frequently the first sign of a general "break up" of the system.

Regard being had to these factors in the etiology of eczema in the aged, we proceed to the management of our cases by first instituting a careful examination into the patient's constitution, habits and surroundings. Diet, clothing, atmosphere, occupation, mental worry or physical exhaustion, every internal or external cause of impaired health should be examined into, and whatever is faulty should be corrected. I need hardly say that the condition of the digestive, circulatory and respiratory apparatus should be carefully examined into, the urine in particular being always examined, and I think that few cases will be found where there is not some screw loose, some defective working of the mechanism.

After placing the patient under the best hygienic conditions attainable, the diet should be regulated with regard to the enfeebled digestion of old age, the loss of teeth, the want of exercise, etc. Among the younger of our old patients, errors and indiscretions in diet, usually from self-indulgence and the morbid cravings of a depraved digestion, are often encountered. Among the very old what is often needed is advice, not unlike that which we have to give to nurses and young mothers. As the patient approaches the condition of second childhood, the diet of infancy in some respects at least seems that which is most likely to be assimilated. Sometimes we meet with sad cases where the old man or woman is obliged

to toil on far past the period when nature demands repose for the wornout frame. In other cases the worry of pecuniary embarrassment or family differences acts like a weight cast on shoulders too weak to bear the load. Unquestionably these unfavorable outward circumstances favor the continuance of eczema in the aged, even if they are not at times its immediate cause. Removal to a hospital or a home away from the unfavorable influences is often followed by immediate improvement in the eczema.

Indigestion, when it exists, is to be combatted by means appropriate to the individual case. I repeat what I said before, that in the younger of our patients regimen is required, and in addition the medicines appropriate to rectify what is amiss, while in the older patients a diet suitable to the enfeebled digestion of old age, easily or partly digested foods, pepsin, etc., are called for.

Constipation is extremely common in the eczema of old people, especially in eczema of the genitals. To remedy this we must rely more upon drugs than diet. In some cases, particularly the younger ones, purgative mineral waters, especially the Hunyadi Jaños, in doses of a wineglassful daily before breakfast, diluted with eight or ten ounces of hot water, may be employed. In older cases the "Lady Webster dinner pill" ("Pil. aloes et mastich") forms the best aperient.

Tonics are at times demanded. Strychine and quinine are useful. Arsenic should be entirely eschewed. Iron sometimes appears to do much good, especially in the form of the tincture of the chloride or in combination with a mineral acid, as in the well-known *mistura ferri acida*. When diuretics seem to be required, the well-known Basham's mixture may be employed with advantage, to which acetate of potassium may sometimes be added.

Alcoholic stimulants are occasionally required in the treatment of eczema in the aged, but must be employed with great caution, and at times certainly do harm. When there is a tendency to heart failure, alcohol must certainly be employed. Digitalis, however, will usually accomplish more in these cases when anything can be done.

The local treatment of eczema in the old is, of course, of great importance. Soothing remedies, as baths of starch and

bicarbonate of sodium; lotions, as lead-water, black wash, may be employed with advantage. The fluid extract of grindeila robusta may be used when the eruption is inflammatory and acute. It should be employed in a diluted form, half an ounce to an ounce being mixed with a pint of water. In applying this wash, cloths soaked with it should be applied to the affected part and allowed to dry in contact with the skin, being then changed for a fresh wet application. On no account should evaporation be hindered, since this would convert the evaporating dressing into a poultice, thus forming maceration and discharge, which is chiefly to be avoided.

In many cases bland astringements or soothing powders may be employed to advantage. Rye flour sometimes succeeds when other applications irritate. The simple dry starch flour, lycopodium, kaolin or subnitrate of bismuth may be mentioned as likely to agree in acute cases. None of these, as a general thing, should be used when there is much discharge. The flour and starch powders in particular are apt to cake and form a crust, under which fermentation with the formation of acid discharge is apt to occur very speedily, adding much to the patient's discomfort, and often aggravating the disease.

The following powder is one which I often use as an anti-pruritic with considerable benefit:

Pulv. camphoræ.....	3j
Pulv. zinci oxidi	
Pulv. amyli.....	āā ʒss M

It should be thickly powdered on, or where practicable, strewn thickly on lint and bound to the parts.

Ointments are most generally useful in eczema of old persons, both soothing ointments and stimulating and anti-pruritic ointments. Among the soothing ointments McCall Anderson's bismuth ointment stands first. It is composed as follows:

Pulv. bismuthi oxidi.....	ʒj
Acidi oleici.....	ʒj
Ceræ albæ.....	ʒiij
Vaselini.....	ʒj-ʒj
Olei rosæ.....	ʒiij M

Hebra's unguentum diachyli is also useful when well made. Dilute Oxide of zinc ointment, ointment of the subnitrate of bismuth, a drachm to the ounce, and of tannic acid in the same strength prove useful at times.

When somewhat more stimulating ointments are called for, carbolic acid in the strength of ten to thirth grains to the ounce will be found both stimulant and anti-pruritic. Pruritus is at times a most distressing symptom in the eczema of old persons, and tar or carbolic acid will usually be found the most efficient remedy. An ointment of tar, one drachm to the ounce, may be used alone or in connection with a mercurial, as this:

Picis liquidæ.....3j
 Ung. hydrarg. nitrat..... 3ij to 3iv
 Adipis.....ad 3j M

Sometimes when the eruption tends to palpuation, or when there is much thickening, we may have to use stronger applications, as Wilkinson's ointment:

Olei cadini.....
 Flor. sulphurisāā 5ij
 Saponis viridis.....
 Adipis.....āā 3vj
 Pulv. cretæ.....gr. xxvi M.

With one of these local applications, or all in succession if required, you will usually be able to give relief to your elderly eczematous patient and occasionally to cure him.—*Philadelphia Medical Times*.

The Alcohol Habit.—One prominent characteristic of nerve tissue is its capacity for retaining impressions made upon it by external influences. "All nervous tissue," says Dr. Wood, "has the faculty of being permanently impressed by temporarily acting stimuli, the thing remembered being, in fact, the functional excitement."

The same idea is expressed by Dr. Carpenter, that our nervous system grows to the modes in which it has been exercised; and he further remarks that it is "the universally-admitted fact that any sequence of mental action which has

been frequently repeated tends to perpetuate itself, so that we are automatically prompted to think, feel or do what we have been accustomed to think, feel or do under like circumstances, without any consciously-formed purpose or anticipation of results. For there is no reason to regard the cerebrum as an exception to the general principle that while each part of the organism tends to form itself in accordance with the mode in which it is habitually exercised, this tendency will be especially strong in the nervous apparatus in virtue of that incessant regeneration which is the very condition of its functional activity. It scarcely indeed admits of doubt that every state of ideational consciousness, which is either very strong or is habitually repeated, leaves an organic impression on the cerebrum, in virtue of which the same state may be reproduced at any future time, in response to a suggestion fitted to excite it."

When alcohol is taken into the human body, certain characteristic impressions are made upon the nervous systems, these are transient in duration, and unless the dose is repeated, the effects soon pass away. If, however, the use of the drug be continued for a considerable period of time, certain changes occur in the organism which become the organic basis of habit and of various mental and physical disorders.

Continued indulgence in alcohol, no matter under what circumstances its use is first commenced, causes physical changes in the circulation and nutrition of the brain, and establishes a morbid condition, which is in itself a constantly recurring plea for a repetition of the stimulating effects of the drug.

The habitual use of intoxicants is very likely, sooner or later, to become a fixed and uncontrollable desire, as the natural result of frequently repeated impressions upon the central nervous system. That which was at first but a mere habit, may, in this way, pass beyond the control of the individual and become a confirmed neurosis. When this occurs, we have an entirely different condition of affairs from that present in the occasional drinker, who chooses to indulge now and then for social or sensual gratification only. A distinction must be made between the self-controlling vice of drunkenness, or acute alcoholism, and the irresistible impulse

of disease. The danger, of course, is that the moderate drinker will occasionally indulge to excess, and later on become the confirmed inebriate, but when the desire for alcohol has passed beyond the power of self-control, a positive condition of disease is present, perhaps not always characterized by changes discoverable at the autopsy, any more than in many cases of insanity, but an abnormal condition of the nervous centres exists, which demands alcoholic stimulation. In many of these cases the habitual use of alcohol is the cause of the diseased condition; the deterioration of nerve element produced by the drug is the source of the continued desire for alcohol. The morbid circle is thus completed. "A vicious habit," says the *New York Medical Record*, "by repetition establishes in time definite changes in nutrition, and perhaps structure. We may call this change, disease, or a vicious habit with an unknown somatic basis as we choose. It is a definite thing, at all events, and one to be treated by other than mental therapeutics."

In the great majority of instances, an individual's first indulgence in alcohol is voluntary, under the control of the will, and is the result of his surroundings or associations. The custom of social drinking adds enormously to the liability of the establishment of the alcohol habit, while the lower classes of our larger cities and towns are, from the very nature of their education and surroundings, predisposed to the excessive use of alcohol. Ignorance, poverty and vice, unfortunate domestic relations, destitution and sorrow, have been for ages most important factors in the causation of chronic alcoholism, while the usages of social life are often convenient starting points for the accomplishment of the same result.

One of the effects of our present methods of living is an increased prevalence of the neurotic diathesis. "Our brains," says Sir Crichton Brown, "are finer in structure, more subtile in mechanism, and also more unstable than were those of our ancestors." With increased complexity of the nervous system there is augmented susceptibility to the action of stimulants and narcotics.

The fierce struggle for wealth, position, or the necessities of daily life, with their resultant tax upon a sensitive nervous system, not unfrequently produces a condition of nerve ex-

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haustion, in which there is great physical as well as mental weakness and inability to easily perform the ordinary duties of life. In this very common condition of neurasthenia, alcohol is often used for its stimulating effects in goading on the flagging powers of life, with the final result not only of increasing the sufferings of the individual, but of adding thereto by the formation of the alcohol habit.

There are many persons, and their number is on the increase, who possess only sufficient nerve power to enable them to perform the most ordinary duties of life with safety. They live constantly on the border line of nervous and mental disaster. As long as they attempt only those labors of life which they are well able to perform, they are comparatively safe, but let them be subjected to severe mental strain or attempt, even temporarily, to carry a heavier burden by the aid of stimulants or narcotics, and the chances are very great that they will become the victims of insanity or inebriety.

The alcohol habit is not infrequently involuntary in character and dependent upon the morbid craving of a defective nervous system. In this class may properly be placed those occasional outbursts of perverted nerve force, which are characterized by periodical excessive indulgence in alcohol known as attacks of dipsomania.

The constitutional tendency to the excessive use of alcohol is usually transmitted from a previous generation. The children of intemperate, insane or neurotic parents, inherit an impaired nervous system, which renders them peculiarly liable to mental and nervous diseases from the slightest exciting causes, while there is often present a strong tendency to the excessive use of stimulants and narcotics. That which was a mere habit in the parent may in the child become an uncontrollable desire. "The nerve enfeeblement," says Anstie, "produced in an ancestor by great excess in drink, is reproduced in his various descendants, with the effect of producing insanity in the one, epilepsy in another, neuralgia in a third, alcoholic excess in a fourth, and so on."

Occasionally the excessive use of alcohol is the result of business or other reverses experienced by an individual possessing an unstable mental structure. The nerve strain of his misfortune may be too great for his powers of resistance,

and the habitual use of intoxicants be developed, partly as a consequence of inherited mental weakness. The craving for alcohol often first manifests itself in a neurotic constitution, after some sudden misfortune or mental strain; later on may occur an outbreak of actual insanity. In this event the successive links in the chain of causes are, an inherited unstable nervous system, inability to successfully cope with the reverses of life, development of a morbid craving for alcoholic stimulation, which leads to further deterioration of the nerve centres, and the occurrence of insanity. Alcohol, however, in these cases, is only a single factor in the production of the final result. It may possibly be only another symptom of slowly developing mental disease.

Alcohol is often prescribed by physicians in convalescence from acute disease and also in certain morbid conditions attended with suffering: its administration for this purpose, however, is not free from the danger of subsequent habitual use. As a medicine, this drug should be classed among the poisons, and should be prescribed by physicians with extreme care, and with due regard to the individual's hereditary tendencies and previous habits of life. The advice of Dr. B. W. Richardson regarding the use of alcohol in general medical practice is as sensible as it is scientific. "Prescribe it as a medicine, do not permit its use as a beverage. Prescribe it as alcohol from the dispensary; learn the exact quantity that is required to produce the desired effect, and then you will discover, and in no other way, whether the good effect attributed to the grog is due to the alcohol it contains or to some other agency." This method of using alcohol in medical practice, in lieu of brandy, wine, whiskey and other liquors containing alcohol, has received the endorsement of many prominent physicians, and possesses the advantage of an exact dosage while it lessens the liability of subsequent unauthorized use of the drug. I am quite confident that there would be fewer cases of alcoholism if physicians would adopt this method, and also exercise the same care in the use of alcohol that they do in the administration of other powerful remedies.

The influence which alcohol exerts upon the mental powers is usually quite marked, whether the drug be taken contin-

uously or in a single full dose. The brain requires the most healthful conditions for the proper performance of its functions. It cannot retain its normal activity, when frequently acted upon by a deleterious drug, consequently there is generally more or less mental disturbance in all cases of alcoholism as the result of impaired or perverted activity of one or more of the cerebral centres.

In the early stage of the disorder the disturbance may be light, and, perhaps, transient in duration, but in the chronic alcoholic, when structural changes have occurred, the impairment of the mind is quite marked, and may include all degrees of mental activity, with occasional outbursts of maniacal excitement or depression to complete dementia.

The question of responsibility for acts committed while the individual is under the influence of alcohol is an important one, and there are many legal, as well as moral, difficulties in the way of its proper solution; still it is to be remembered that the excessive use of alcohol is often only a symptom of an inherited defective nervous system, the morbid actions of which are not always within the control of the individual. It is also true that acts committed while the brain is being acted upon by alcohol cannot be those of a normal mind.

Continued indulgence in alcohol lowers the vitality of the nerve centres by the degenerative changes which it produces. The individual is consequently less able to successfully endure those vicissitudes of life which, under ordinary circumstances, are not injurious to a well-balanced mind, while any unusual exposure, mental strain or shock, is extremely liable in these cases of alcoholic predisposition to produce an outbreak of actual insanity. Anything which interferes with the healthy nutrition of the brain is a predisposing cause of insanity, and it is a fact beyond question that alcohol in excess produces changes in the brain circulation and nutrition, and that it is one of the most common causes of mental disease, producing its effects, not only by degredation of nerve element, which may be followed later by mental disturbance from a very slight exciting cause, but it is also the direct excitant of a taxic form of mental derangement known as alcoholic insanity.

Concerning the relation which alcohol bears to insanity,

Dr. T. H. Kellogg remarks: "That it is active, first, in exciting attacks to which there is already an inherited or acquired tendency; secondly, in the development, *de novo*, of characteristic types of mental derangement, and directly in the transmission of weak and irritable nervous systems that predispose to mental disorder."

In considering the best methods of dealing with the victims of the alcohol habit, a distinction must be made between those cases of alcoholism which are the direct result of voluntary indulgence for sensual or social gratification only, and those in whom the irresistible impulse of disease is present, as it often is, from the very beginning of their course. The first class often closely resembles the second by reason of the morbid craving for alcohol which has been acquired by repeated indulgence, but its members are usually more amenable to treatment by moral means, at least in the early stage of the disorder, than are those in whom the excessive use of alcohol is more or less involuntary, the outcome of an impaired or defective nervous system.

The frequent result of the habitual use of intoxicants is a gradual loss of self-control and the establishment of that morbid condition of the higher nerve centers known as inebriety. When this occurs an entirely different method of treatment from that requisite to overcome a merely vicious habit will be necessary. We have now to deal with a disease needing the hearty co-operation and assistance of the patient, as well as proper medical care for its relief.

The popular idea that the chronic inebriate is the victim of a vice or crime which is within his unaided powers of control is as irrational as it is unscientific, for it is based upon a total misconception of the subject.

Inebriety, whether it be due to hereditary influences or induced by the habitual use of alcohol, is not a vice or crime to be punished with fines and imprisonment, but a disease requiring intelligent medical care and treatment. When this fact is fully recognized by the medical and legal professions, as well as by the public at large, a most important step in the rational treatment of the inebriate will have been taken. As soon as the doctrine of disease is accepted, inebriety passes from the domain of morality, which it has held so long, and

becomes a proper subject for the consideration of the medical profession.

The inebriate will then be regarded as a sick man in need of special care. As a rule this can best be obtained in institutions properly equipped for this purpose, and in charge of physicians who have made special study of this subject. Such institutions, whether public or private, should be located as far as possible from every source of temptation, and should have all the legal powers of detention and control possessed by our best asylums for the insane; furthermore, our laws should be modified so as to compel the commitment of chronic inebriates to these special asylums rather than to the county jails or the institutions for the insane.

In this way the habitual or periodic alcoholic may, at the discretion of the court, be prevented from further injuring himself, his family, or society, while at the same time he will be placed under the best possible conditions for recovery, or, if found to be incurable, will be provided with a permanent asylum home, which will, at least, prevent the transmission of the insane or inebriate diathesis to a succeeding generation.

When the inebriate has been properly treated in these special institutions the results have been more satisfactory than by any other method of treatment.

Of five hundred cases of inebriety discharged from the Inebriate's Home at Fort Hamilton, N.Y., Dr. Mason reports that two hundred and eighty-three had been heard from; of these 148 were doing well, 10 were improved, 86 were unimproved, 29 had died, 8 had been transferred to lunatic asylum, hospital or alms-house, and 2 were idiotic.

This plan has also received the endorsement of the medical profession. In 1876 the American Medical Association resolved "that special treatment in institutions adapted to that purpose is required for the cure of the inebriate, and it is the imperative duty of each commonwealth to establish and maintain public institutions for the treatment and cure of inebriety." One year previous to this the Association of Medical Superintendents of American Institutions for the Insane took the same ground, and further, "Resolved, that as, in the opinion of this association, any system of management of institutions for inebriates under which the duration of the

residence of their inmates and the character of the treatment to which they are subjected is voluntary on their part, must, in most cases, prove entirely futile, if not worse than useless. There should be in every State and Province such positive constitutional provision and statutory enactments, as will in every case of assumed inebriety secure a careful inquisition into the question of drunkenness and fitness for the restraint and treatment of an institution for inebriates, and such a manner and length of treatment as will render total abstinence from alcoholic or other hurtful stimulants during such treatment absolutely certain, and present the best prospects of cure or reform of which each case is susceptible.

“Further, that the treatment in institutions for the insane, of dipsomaniacs, or persons whose only obvious mental disorder is the excessive use of alcohol or other stimulants, and the immediate effect of such success is exceedingly prejudicial to the welfare of those inmates for whose benefit such institutions are established and maintained, and should be discontinued just as soon as other separate provision can be made for the inebriates.” In conclusion, I would remark:

(1.) That the continued use of alcohol produces structural changes in the brain and other portions of the body. These changes form the organic basis of habit and of various mental and physical disorders, and constitute a morbid condition, which is in itself a constantly recurring plea for the continued use of the drug.

(2.) The habitual use of alcohol may be the result of indulgence for sensual or social gratification only, or it may be the outcome of an inherited or acquired impairment of the nervous system. It is important to distinguish between these two classes when possible.

(3.) The alcoholic habit leads to inebriety, a disease of the higher nerve centers, which requires proper medical treatment in institutions especially equipped for this purpose.

(4.) These institutions should have full legal powers of detention and control, but they should have no connection with public asylums for the insane.

(5.) Our laws should provide for the judicial commitment of the habitual or periodic inebriate to these special institutions, rather than to the county jails or insane asylums.—*Dr. Baker in the Alienist and Neurologist.*

The Technique of Intestinal Injections.

—Quinke is quoted by the *Deutsche medicinische Wochenschrift* of April 5, 1888, in his description of methods of intestinal injections which he has recently found useful. In place of the hard tip which is ordinarily used on enema syringes he substitutes a soft, flexible nozzle, about eight to eleven inches long, and of convenient calibre. The tip is slightly harder than the rest and has two lateral openings; the external end is dilated somewhat, the whole resembling an oesophageal tube. It must be perfectly smooth and of the best rubber. The insertion of such a tube is far less painful than the use of the ordinary tip. It may be ordinarily inserted two or three inches, but when necessary may be passed four or six inches without injury. This tube may be very easily cleansed, soap and water and carbolic acid sufficing to disinfect it thoroughly. An injection of oil may be readily given by filling the dilated external extremity with oil, and then attaching the irrigator tube; the water from the irrigator will force the oil before it into the bowl. In obstinate tympanites the tube may be allowed to lie in the bowel for an hour or more, securing the free exit of gas. Quinke secures the retention of a considerable quantity of water high in the bowel by a very ingenious device, which consists in attaching to a convenient portion of the tube a collapsed rubber balloon two inches in diameter when inflated. This balloon may be filled with water by its own small separate tube. When introduced to the desired height the nozzle aperture is free from it. The balloon is then filled with water, occluding the bowel; the desired injection is then introduced beyond it, and as much fluid as desired is thrown in at the desired level.—*Med. News.*

The Contra-Indications and Dangers of Antipyrine.—Antipyrine should not be administered in anti-hyperpyretic doses to patients suffering from renal disease, it having been demonstrated that its effect is to suspend the functional activity of the kidneys. For anodyne purposes antipyrine should be avoided in cases of real angina, because, although it may allay the pain, it acts injuriously on the muscular structure of the heart. In pseudo-angina there is no

reason to prefer it to morphine. The danger to anginal patients from the administration of antipyrine consists in that (1) there is a constant risk of acute dilatation of the heart, which may result in depletion of the vessels supplying the nervous system and so cause death from collapse. (2) All anginal patients have more or less diseased arteries, and the kidney function is consequently impaired. Dr. Elvy considers antipyrine a drug which has obtained notoriety by false pretences. In one case it modifies the temperature without diminishing the fever; in another it alleviates the pain, but increases the risk in such wise that "if patients feels better while they live, they nevertheless incur serious risks."—*Elvy, in London Med. Record.*

Tracheotomy in Morphine Poisoning.

—About four months ago I read in the *Medical Review* a short account of the resuscitation of a physician of Vienna from opium narcosis by means of tracheotomy and forced respiration with a bellows. It seemed to me to be a rational and feasible procedure, and I determined to try it, should the opportunity present itself.

On the afternoon of March 11, 1888, a young man was brought to the City hospital in an unconscious condition. It was reported that about an hour previously, in ending up a debauch, he had taken an ounce of laudanum with suicidal intent. His condition then was bad; cyanosis was marked, the pulse was proportionally weak, and respiration, already shallow, was rendered difficult by the accumulating mucus in the trachea. The pupils were minutely contracted and immobile; extremities cold. The treatment usually carried out in the hospital in such cases was adopted; one-hundredth of a grain of atropia, and several syringefuls of whiskey were administered subcutaneously, the syphon-tube was passed into the stomach, and that organ was repeatedly washed out, at first with water, afterward with strong coffee. The flagging respiration was stimulated by douches of cold and hot water alternately dashed over his chest, and to the same end the Faradic current for a time seemed to be of benefit. But notwithstanding our efforts, narcosis became more profound; cyanosis was intensified to a degree which I have seldom seen,

and efforts at respiration on his part ceased entirely, so that artificial respiration was substituted, effectually at first, with much less success afterwards. It became evident that unless something radical were done, and that, too, immediately, the patient could not last. I bethought me of the bellows method.

The patient was hastily removed to the amphitheatre, where, with the kind permission of our superintendent, Dr. H. C. Dalton, I performed tracheotomy as rapidly as possible, during which only a gasp was taken now and then, probably two or three to the minute. On separating the severed cricoid, a deep inspiration was followed, as is usually the case at this stage of a tracheotomy, by a considerable interval of quietude. We were about to insert the tube connected with the bellows, when a second gasp produced such a shock on the bronchi by the direct impact of cold air on their mucous surface, that violent coughing was set up, expelling with each spasmodic expiration mucus which had collected in the trachea to a considerable amount. By this means the tube was soon cleared of its contents. Coincident with the violent coughing, of course, deep inspirations were taken, just the object aimed at, though attained in an unexpected manner, without the use of the bellows; change for the better began almost immediately. The dark purple countenance gradually paled under the more vigorous action of the heart—however paradoxical that may appear at first thought—and efforts to speak evidenced returning consciousness. A piece of moist gauze placed over the tube acted as a filter to the inspired air. Injections of stimulants—whiskey and ether—were continued at intervals, and another hundredth of a grain of atropia was given, after which the patient was removed to his bed and subjected to frequent and vigorous stirring up when respiration was inclined to flag—and it was so inclined for the next several hours. Sleep was not prevented, and he was soon wrapped in its soothing embrace. On the following morning the tube was withdrawn and the incised membrane and cartilage were sutured, the rest of the wound being allowed to granulate.

I should like to be able to close the record of this case *a la mode* with the statement that recovery followed without a bad

symptom, but I am prevented from doing that by the fact that four days after his entrance into the hospital the patient became subject to delirium tremens, from which he died thirty-six hours later. The presence of pneumonia or other complications of that sort was definitely excluded by post-mortem examination.

It may be suggested that possibly the patient might have recovered even after several stoppages of natural respiration, such as the one which precipitated the operation, ordinary methods of artificial respiration being employed. I, too, believe that possible, but not probable—a fact but too often demonstrated in cases of that kind.

I have seen not a few patients with vastly less cyanosis, with at times stronger pulse and more vigorous respiration, succumb under the continued use of that treatment.

And the procedure could add no complication to the already critical situation; on the contrary, it could only be of benefit by allowing a free vent for the cause of that ominous sign, the tracheal r le, and by shortening and simplifying the channel of communication between the lungs, and that all powerful life-giver, "fresh air." As hinted at above, the direct influx of unwarmed air would seem to be no mean factor in conducing to the desired end. Should respiration not be re-established, or fail after its repeated re-establishment, it would be easy enough to insert into the tracheal tube a tube connected with a bellows, by which the lungs could be forced into activity as long as desirable.

In searching for literature on the subject, the *Index Medicus* directed me to only one article referring to it, that of Dr. G. E. Fell, in the *Buffalo Medical and Surgical Journal*, for November, 1887. In it the author reports the successful treatment by means of forced respiration with bellows, etc., of a patient who had been poisoned by morphine for a longer time than the one to whom I have called your attention. The narcotism in the former case seems to have pursued a course not so rapid as that of the latter. The apparatus used was the one usually employed in the doctor's physiological laboratory in the performance of artificial respiration on dogs.

The operation was done on July 24, 1887, prior to the one performed at Vienna, and was, therefore, so far as known, the

first on record. Since then Dr. Fell has used the treatment with success in two cases, both of which required the prolonged exercise of forced respiration.

In view of the results of the hospital case, I believe that in morphine poisoning, where other means fail, even though it be impossible, on account of the lack of apparatus, to supplement it with bellows respiration, tracheotomy is a wise and justifiable measure.—*Dr. Bransford Lewis in the American Medical Association Journal.*

Metabolism in Typhoid Fever in Children.—The urine gives perhaps the best indications of the tissue changes proceeding in typhoid fever, as in any other disease. Jacobowitsch (*Archiv für Kinderheil*, Bd. ix, Heft i) has made an important contribution to our knowledge of the metabolic changes in typhoid fever in children. He insists on the necessity for knowing the actual quantity of nitrogenous material daily ingested, and also the quantity of urine and other excreta, together with the daily loss of carbonic acid and water. There is a considerable diminution in the quantity of urine passed during the pyrexial period, but no definite correspondence was noted between the elevation of temperature and the quantity of the urine. At the end of the first week there was a loss which varied from 50 to 200 cubic centimetres, and even to 500 cubic centimetres in some cases, the quantity voided being one-half of the normal. These diminutions were rather increased during the second week, whereas at the end of the third week the quantity tended again to rise, and in some of the cases was twice the amount of the second week. During the fourth week the normal was still not reached. As a rule, the color of the urine was deeper red the less the quantity passed; but this did not always obtain, for in some instances the color was nearly natural. The reaction was usually acid—sometimes, however, only slightly. As was to be expected, the density of the urine was inversely proportional to the quantity. Gerhardt states that albuminuria results from variation in blood pressure due to the pyrexia, but Jacobowitsch does not substantiate this, for he detected no albumen in the urine in his cases at any period of the disease. The estimations of the urea discharged during

the disease are very interesting and appear to be ranged in two classes; in one the urea discharge was large during the first week, but then gradually lessened as the disease progressed; in the other class the discharge of urea gradually augmented with the continuance of the fever, and continued to rise until the fever ended. The uric acid discharged was found to correspond with the elevation of temperature, and to be greater during the pyrexia of the first period than during the later stages of the disease. A diminished excretion of chlorides was noted all through the morbid process. The excretion of phosphates and sulphates also was grouped into two classes like the urea, in one the quantity being increased at first, but then lessening by degrees, and *vice versa*. Jacobowitsch believes that the activity of the poison in the blood has more influence in altering the urine than has the fever or the febrile accompaniments.—*Lancet*, April 21, 1888.

Jaborandi in Obstetric Practice.—Having for many years noted the fact that parturition does not progress favorably till diaphoresis occurs, I have for some months past induced this condition in the early stage of labor by giving fluid ext. jaborandi (green—the brown has proved worthless in my hands.) My plan is, when called to a case, to order a warm brick to be applied to the feet, which are always cold, and then to give one-third of a teaspoonful of fl. ext. jaborandi in half a wineglassful of water, and repeat the dose every half hour until perspiration occurs. It is very seldom that more than two doses are required. The first effect of this medicine on the patient is soothing; she becomes more quiet and bears her pains with resignation. Upon being questioned, the patient often states that her pains do not hurt her as they did. On examination after diaphoresis occurs, the os will be found dilating rapidly; the soft parts to be in a favorable condition; and in a short time the labor will be satisfactorily terminated. Should the patient appear weak from the sweating, I wipe her face and neck with a dry towel, and give her a teaspoonful of whiskey or half as much of aromatic spirits of ammonia. Since using the above remedy I have had no occasion to use ether, chloroform or the forceps. I have not seen any mention of the use of jaborandi in obstetric practice; but, having had such favorable results from its employment I recommend it to the consideration of the profession.—*Dr. Hardcastle in Med. and Surg. Reporter*.

CANADA

Medical and Surgical Journal.

MONTREAL, JUNE, 1888.

GALLSTONES vs. SOAP.

The London *Lancet* has certainly the reputation of being steady and reliable, if ever journal was, and it is for this reason that we feel so particularly surprised, even grieved, that it should have fallen into believing such an old, old story as that of the "olive oil and the gallstones." In the summary of the advances in therapeutics made in the year 1887 we find, "The treatment of gallstones by the use of a decoction of a well-known fern, asplenium ceredach or doradilla, and also by very large doses of olive oil, is amongst the therapeutical singularities of the year; and there are grounds for believing that each of these remedies may be found of value." We were under the impression that this "oil and gallstone" affair had now become a matter of ancient history.

In the *Canada Lancet*, about five years ago, the whole matter was fully discussed, and as we thought at the time, settled. The suffering patient, the oil, the down-pour of gallstones, the delight of the doctor, the rush to print, the discovery that swans were geese and gallstones soap are all described in that veracious chronicle of the period.

The question seems to be finally settled by D. W. Prentiss, in the *Philadelphia Medical News*, in an article entitled "Gallstones or Soap?" He describes cases in which relief to symptoms really did follow the administration of oil. The masses passed were subjected to careful chemical analysis at the hands of Professor Wiley, chemist of the Agricultural Department, who furnished, it is believed, the only analysis of these concretions yet published. "On reaching me the whole had melted

to a viscous mass resembling soft soap. On examination it proved to be a true soap, easily soluble in alcohol, yielding fatty acids, insoluble in water on treatment with an acid, The chief part of the alkali was soda. This is an interesting case, showing the complete saponification of a large quantity of oil by the pancreatic juice and bile, and the passage of the greater quantity of soap thereby formed, unabsorbed, through the alimentary canal." Soap or no soap, the patients in these cases all appear to have had their symptoms relieved.

IMPROVED CÆSARIAN SECTION.

Dr. Garrigues of New York (*American Journal of Medical Sciences*) again protests against Sanger's name being attached to an operation which is "the beautiful outgrowth of general surgical and special gynecological development, an evolution due to the combined efforts of many men working independently of each other, in different countries, especially Lister in Scotland, Spencer Wells in England, Gueniot in France, P. Muller in Switzerland, Leopold in Germany, and last, but not least, Lungren in the United States. Even in Germany voices have been raised against Sanger's claims, for at the Munich meeting of the German Gynecological Society in 1886, Kaltenbach asked what was left of Sanger's method since operators had given up slicing away a section of the muscular tissue and had found silk and wire of equal value. Sanger, who was present, replied that he had recommended the use of numerous sutures, rejected absorbable materials for his sutures, directed that the decidua be not included in the suture, and laid special stress upon an exact sero-serous suture. Garrigues contends that every one of these points had been borrowed from others. Numerous sutures (a combination of deep muscular and superficial peritoneal) had been used by Spencer Wells in uterine fibroids and by Kehrer in Cæsarian section. Catgut had been given up, and Dr. S. S. Lungren of Toledo had avoided the decidua in 1875, and published it in 1880, and had folded in the peritoneum to make the sero-serous suture before the new literature on the Cæsarian section was begun.

TO OUR READERS.

On and after the first of July next this JOURNAL will be issued under the name and title of THE MONTREAL MEDICAL JOURNAL. Another and more important contemplated change is an increase in size from 64 to 80 pages. The editors have for some time seen the necessity for this change to make room for the ever-increasing amount of original matter with which they are favored. They are pleased to announce, also, that through the liberality of the publishers the price of the JOURNAL will be reduced from three to two dollars per annum. In many quarters it is a common saying among practitioners that there are too many medical journals. There is no doubt a vast amount of quickly perishable matter published. On the other hand, there is a vastly greater amount of important matter left unpublished. Let any practitioner count up the number of his colleagues who seriously and regularly contribute their experience to the sum total of knowledge, and after all he will find the percentage a very low one. What an immense amount of living knowledge is lost to the world through the apathy of many of us? It is the bounden duty of each and every one to contribute his mite. Every man has a mite to contribute.

An important feature of the MONTREAL MEDICAL JOURNAL will be the issuing of regular quarterly reports on the different branches of practical medicine. These reports will be made out by men qualified by special knowledge in their different departments. In the past our regular reports on surgery and gynecology have been highly appreciated, and we can assure our readers that no pains will be spared to continue this efficiency. Through these reports the reader will with little labor be enabled to thoroughly keep abreast of the times in all the practical departments of his profession.

PROVINCIAL MEDICAL BOARD.

The semi-annual meeting of the Provincial Medical Board of the Province of Quebec was held in the City of Montreal on Wednesday, the 9th May, 1888, Dr. W. H. Hingston, President, in the chair.

The report of the examiners for admission to the study of medicine was read. Forty-six candidates had passed the necessary examinations and were received by the Board as qualified to enter upon their studies. Thirty-two candidates will be required to pass upon certain subjects at the next examination, and nine were rejected.

Dr. Prosper O. Louzon presented a notarial notification, informing the Board that he will apply for a license at the next session of the Legislature.

The President stated that the Committee on the Amendments to the Medical Act had not been called together since the month of September last.

It was moved by Dr. Lachapelle, seconded by Dr. Lemieux, That all candidates for license, who have passed the preliminary examination in any other province than that of Quebec, shall be obliged to sign a solemn declaration that such certificates were obtained in compliance with the requirements of such provinces, and not for the purpose of evading the law of the Province of Quebec.

An amendment was moved by Dr. T. Larue, seconded by Dr. Paré, That the Provincial Medical Board cannot, according to its by-laws, accept the certificate from any other province of the Dominion for the preliminary examination of those who study medicine in the Province of Quebec.

A sub-amendment was moved by Dr. Kennedy, seconded by Dr. Parke, That certificates for matriculation in medicine, registered by the Ontario Council, be accepted for the present as heretofore, and that a committee be named to examine into the nature of the certificates and to report at the next meeting of the Board.

Both the amendments and the main motion were lost on division. Dr. Lachapelle then resigned from the Committee on qualifications and was replaced by Dr. Paré.

At the afternoon session the reports from the assessors of the Universities of Laval, McGill, Victoria and Bishop's Colleges were read and adopted.

A duplicate license was granted to Dr. Alleyn, of New Orleans, formerly of Quebec, the original having been accidentally destroyed by fire.

A man named Thomas Ward, who has been prosecuted as a

quack several times, made application by letter to be permitted to practice the dressing of wounds and cancers, as he had been in the habit of doing for forty years. Laid on the table.

Dr. Kennedy, for the Committee on Qualifications, reported that the following gentlemen were entitled to the license :

Victoria University—Henri Ducharme, Jos. Beaulne, Victor Bourgaant, E. A. Laferrière, Hyacinthe Bastien, L. A. Beaudry, J. C. Gadoury, J. A. Marcotte, J. E. Brault, E. E. Laurent, L. C. Bussière, Jos. Barolet, J. M. Picotte, J. A. Pomminville, C. T. Morel de Ladurantaye, J. T. Moreau, J. A. Paré, L. Leblanc, Jos. Thériault, Chas. F. Clerk.

Bishop's University—V. J. Groulx.

Laval University, Montreal—E. A. René de Coteret, Charles Marceil, Arthur J. Ricard.

McGill University—E. H. P. Blackader, E. L. Quirk, F. G. Finley, W. G. Stewart, J. H. Bell, A. W. Haldimand, C. W. Haentschell, W. W. Chalmers, R. Marr Kincaid.

The candidates were sworn and the licenses granted.

Dr. Kennedy then submitted the names of a number of candidates having the degree of M. D., who have passed their preliminary examination in Ontario, Manitoba, or New Brunswick

Moved by Dr. Guay, seconded by Dr. Rousseau, That the question of admission to the study of medicine be reconsidered.

The motion, on division, received a majority of votes, but the President ruled that a two-third vote was always required for reconsideration.

Moved by Dr. Grandbois, seconded by Dr. Howard, That in future the license shall be refused to those candidates who, belonging to this province, have endeavored to evade the law of the province by passing their preliminary examination in one of the other provinces; and that the candidates now before the Board having such certificates from other provinces be required to sign a solemn declaration that they have obtained such certificates in the regular course and not with any intention of evading the existing law.

Moved in amendment by Dr. Dagenais, seconded by Dr. Ladouceur, That, in future, the Board grant no license to candidates not possessing the certificate of preliminary examina-

tion from this Board, with the exception of the cases provided for by the law.

Amendment lost and main motion carried.

The following graduates signed the above declaration before Dr. Leprohon, J. P., were sworn, and received the license :

Victoria University—Thos. Ennis, Félix Coran, Paul Royal and U. A. Dorais.

Bishop's University—Frederic Taylor, Follin H. Pickel.

McGill University—R. B. Struthers, J. A. Springle, W. D. T. Fergusson, F. D. Robertson, John Geo. McCarthy, F. G. Desmond, James Hewitt and C. P. Dewar.

Queen's College—Jas. N. Anglin.

Dr. Alfred Smith, of the Toronto School of Medicine, also received the license.

It was resolved that the following members be a committee to take the steps necessary for the presentation of the Medical Bill before the Legislature: Drs. Lemieux, Belleau, Lachapelle and Parke.

Moved by Dr. Christie, seconded by Dr. Durocher, That the Bill be withheld for six months. Lost.

Meeting then adjourned.

ONTARIO MEDICAL ASSOCIATION.

The eighth annual meeting of the Ontario Medical Association will be held in Toronto on June the 13th and 14th. The meeting promises to be of more than usual interest.

Dr. Mullin of Hamilton opens the discussion on Medicine, his subject being "Malaria as a Cause of Disease."

Dr. Grasett of Toronto opens the surgical discussion by a paper on "Urethral Discharges."

Dr. Burnham opens a discussion on Ophthalmology by the reading of a paper on "Some Affections of the Eye of Interest to the General Practitioner."

The following papers, among others, have been promised :—

Neurasthenia—Dr. Daniel Clark.

Pessaries—Dr. Temple.

Intestinal Sutures—Dr. Oldright.

Coroner's Inquests—Dr. J. H. Richardson.

Changes brought about by Bacteria in Blood and Tissues—Dr. C. Sheard.

Laparotomy for Intestinal Obstruction—Dr. McFarlane.

Moral Insanity—Dr. Workman.

Glossitis—Dr. Hunt of Clarksburg.

Congenital Goitre—Dr. McKenzie, Wingham.

Treatment of Inguinal Hernia—Dr. Robertson, Brampton.

Rest in Neurasthenia—Dr. Walker of Dundas.

Craniotomy—Dr. Harrison of Selkirk.

Intubation of the Larynx—Dr. Stark of Hamilton.

Treatment of Empyema—Dr. Whiteman of Shakespeare.

Uterine Electrolytic Apparatus—Dr. A. M. Rosebrugh, Toronto.

Dr. Wyeth of New York will read a paper on "Plastic Operations in Urethro-Rectal Fistulæ."

CANADIAN MEDICAL ASSOCIATION.

The twenty-first annual meeting of the Canadian Medical Association will be held in the city of Ottawa, on the 13th and 14th of September next. The following are the officers of the Association:—

President—J. E. Graham, M.D., Toronto.

President Elect—George Ross, M.D., Montreal.

General Secretary—James Bell, M.D., Montreal.

Treasurer—Charles Sheard, M.D., Toronto.

Vice-Presidents—For Ontario, Dr. Eccles, London; Quebec, Dr. Christie, Lachute; New Brunswick, Dr. Currie, Fredericton; Nova Scotia, Dr. Wickwire, Halifax; Manitoba, Dr. Blanchard; British Columbia, Dr. True, New Westminster.

Local Secretaries—For Ontario, Dr. J. A. Grant, Jr., Ottawa; Quebec, Dr. Armstrong, Montreal; New Brunswick, Dr. Lunam, Campbellton; Nova Scotia, Dr. Trueman, Sackville; Manitoba, Dr. Chown, Winnipeg; British Columbia, Dr. Milne, Victoria.

BRITISH COLUMBIA MEDICAL COUNCIL.

The regular semi-annual meeting of the British Columbia Medical Council was held in Victoria on the 1st, 2nd, 3rd and 4th of May. Present: Dr. Davie (Victoria), Vice-President; Dr. Milne (Victoria), Registrar; Dr. Hanington (Victoria), Treasurer; Dr. McGuigan (Vancouver), Dr. Powell (Victoria), and Dr. DeWolf Smith (New Westminster).

The Treasurer's report showed that the Council had a satis-

factory balance on hand, and it was resolved to devote a portion of this to the prosecution of unregistered practitioners throughout the province.

Two candidates presented themselves for the license, but were referred for six months.

The election of officers for the ensuing year resulted as follows: President, Dr. J. C. Davie; Vice-President, Dr. W. J. McGuigan; Registrar, Dr. G. L. Milne; Treasurer, Dr. E. B. C. Hanington,—the two latter being re-elected.

The Committee on Fees, appointed at the last meeting, brought in a report recommending a scale of fees, which was adopted by the Council and ordered to be printed.

The Council then adjourned. The next meeting will be held in Vancouver, on the first Tuesday in November, 1888.

NOTES AND COMMENTS.

There are certain disputed points in the clinical history of purpura rheumatica (the Peliosis rheumatica, of Schönlein), which are illustrated by the following case:—A. B., at 30, seen with Dr. J. H. Musser. He had been a tolerably healthy man. In March had a severe sore throat, which kept him at home for a couple of weeks. He returned to work, but in ten or twelve days the sore throat again came on, with fever and swelling of the left ankle. I saw him on the fourteenth day of the illness. The symptoms had been fever of moderate grade; arthritis, chiefly of right ankle, but other joints were also sore and stiff; an extensive purpuric and urticarial eruption, beginning on lip and eyelid and extending to limbs, chiefly on extensor surfaces; great swelling and finally sloughing of uvula; profuse sweats, and endo-pericarditis. At the time of my visit the purpura was fading, but the rash was still most extensive on the legs and was both petechial and presented the characters of *p. urticans*. A considerable portion of the uvula had sloughed away and the fauces had a deep bluish red color. The heart beat was outside the nipple line; there was pericardial friction, and a systolic murmur could be heard at the apex.

The question arose whether we had not a case of malignant

endocarditis, with the extensive cutaneous infarcts so common in this disease; but the large size of the hæmorrhagic spots, their swollen condition, and the fact that some of them began like "hives," pointed to a purpura nrticans associated with articular and cardiac disease in a case of rheumatism. The joint affection, profuse sweats and endo-pericarditis indicate the true rheumatic nature of cases of this kind. The sore throat, so marked a feature, existed also in a remarkable case of Peliosis rheumatica which I saw with Dr. Molson in 1880 and which is recorded in Vol. IX. of this journal. The patient had three attacks of tonsillitis within five weeks. Sloughing of the uvula, such as occurred in Dr. Musser's patient, is occasionally met with in acute rheumatism. I recorded an instance in Vol. VII. of the journal, and lastly, the existence of endo-pericarditis is worthy of note, as certain authors have laid stress on the fact that it does not occur in rheumatic purpura.

With the rose-colored rash in typhoid fever, or occurring alone, there are sometimes to be seen bluish spots on the skin of abdomen, back and thighs, ranging in size from two to eight lines in diameter, and often arranged in groups. They were called *taches bleuâtres* by the French and by this name have passed into literature, though the term peliomata has also been applied to them. Murchison gives a good description of them in his work on fevers (for good illustration see his Plate V.), and agrees with Jenner that they are usually seen in light cases. Though not very common, I have usually each session an opportunity to demonstrate them, and my attention has recently been directed to the subject by their occurrence in three cases in succession, all very severe.

In my experience they occur indifferently in severe and mild cases. The spots are not elevated, but in certain light may appear, as Forget notes, depressed. They do not occupy the same layers of the skin as the typhoid rash, but are rather sub-cutaneous, as the pale dermis may be seen above them. Firm pressure causes them to disappear and they fade after death. Murchison and Jenner state that they persist after pressure, but certainly in the cases in which I have tested this point the lividity could usually be removed.

The condition is not peculiar to typhoid, but occurs in relapsing typhus and simple fevers. I have never seen it except in association with the febrile state. I believe it to be a vaso-motor disturbance, inducing local areas of congestion in the sub-cutaneous tissue. Duquet and other French writers have expressed the opinion that they are caused by pediculi pubis, not by the punctures, but by the saliva extruded on to the skin! Certainly, the "blue spots" occur in cases in which no pediculi can be found, and it is curious that they should come out only in conditions of fever.

The recently completed work of Gowers on the *Diseases of the Nervous System* is the most solid contribution to systematic neurology produced by the British school, and as a text book on the subject stands unrivalled in any language. We need not read between the lines to see the untiring industry, the powers of patient observation and the clear, strong judgment which have made this work possible, and have made the author, at a comparatively early age, among the highest living authorities on all matters relating to diseases of the nervous system. No school of medicine in Great Britain has produced such good work in this department as University College: Bastian in the higher psychological relations of mind and brain, Schäfer in cerebral localization, Gowers in his numerous monographs and in this large volume, and Horsley in his brilliant work in the field of brain surgery.

The highly improbable obstetric tale which I told in the January number has been too much for the credulity of many of your contemporaries, and to their criticisms I meekly submit, knowing well that in obstetrics and gynecology I cannot lose a reputation for veracity; but I am glad to see that Mr. Brydges has come to my rescue and that much fuller details of this truly remarkable case have been published in one of the Manitoba papers and have been copied into a recent number of the *New York Medical Journal*. With the doctor who delivered the placenta and the conductor who found the child on the track I now leave the skeptics.

Medical Items.

—We hear that Dr. T. D. Reed has been invited to give a short course of lectures on Physiology and Hygiene to the members of the McGill Normal School, to commence in September.

—Dr. Fritsch, Professor of Gynæcology at Breslau, well known as the editor of the *Centralblatt für Gynäkologie*, has been nominated successor to Prof. Scanzoni of Wurtzburg.

A NEW TREATMENT OF NEURALGIA.—In facial and subcutaneous neuralgias, some surprising results appear to have been obtained in France from the combined action of the constant current and chloroform. Prof. Adamkiewics some time since constructed a porous carbon electrode into which he is able to introduce chloroform; under the influence of the current, the chloroform of the electrode, which is connected with the positive pole of the battery, penetrates the tissues, a result which may be made sufficiently apparent by coloring the chloroform with gentian violet, and then passing the current through the ear of a rabbit. It produces a triple action—through the constant current and the burning, and finally anæsthesia. Prof. Adamkiewics cites many observations where this method has proved remarkably successful, and confidently recommends it.—*Epitome*.

NEW AND IMPORTANT MEDICAL FACT.—The *Medical Review*, commenting on the scientific and profound researches by Prof. Seegen of Vienna, and his conclusion that the sugar formed by the liver is derived from albumen and fat, characterizes his conclusion as a new and important fact—one not in accord with the previously entertained chemical and physiological ideas. Prof. Seegen's conclusions, briefly summarized, show that the blood passing from the liver contains an infinitely greater quantity of sugar than that entering the organ; that the newly-formed sugar in the liver is wholly independent of saccharine food, as well as of the carbo-hydrates introduced with the food; that even the liver glycogen is unconcerned in the production of sugar in the liver, and that albumen and fat are the materials out of which

the liver forms sugar. The demonstration of this fact was accomplished by bringing together fatty bodies and blood with finely divided liver substance. This being so, the liver is pronounced to be the great laboratory in which food is changed for the performance of work and the production of heat.—*The Epitome.*

—Wm. R. Warner & Co. have issued the following notice to physicians: "We take this method of denouncing the circulation of certain erroneous reports, as being the outcome of ignorance or malice. We have no connection with the firm of H. H. Warner & Co. of Rochester, who make 'safe remedies' and other patent medicines. Our advertising is to the medical profession, and our pills and products [Warner & Co.'s] have been used and held in high esteem by the most eminent doctors during the past thirty years in the United States and in foreign countries. The therapeutic value of a remedy is ascertained by the medical practitioner, and it is the province of the manufacturing chemist to prepare the various medicinal preparations in the most correct, compatible, palatable and convenient manner, by the aid of skill acquired by years of practice and experience. It seems to be necessary to specify Wm. R. Warner & Co.'s Pills and Bromo Soda with Caffeine to obtain what you want."

SACCHARINE TABLETS.—This chemical substitute for sugar, possessing nearly three hundred times the sweetening properties of cane sugar, can now be used with perfect safety by those suffering from diabetes, Bright's disease, dyspepsia, obesity, and every ailment where sugar is forbidden. The tablets are guaranteed as being perfectly free from cane or grape sugar, or anything a diabetic patient should avoid, and will impart to tea, coffee or any other substance a sweet and delicate flavor, which has been by many preferred to that obtained from commercial cane sugar.

Directions—A whole tablet is sufficient for a very large cup of strong tea or coffee, but as each individual taste varies, it may be found that half or even a quarter of a tablet will suffice; in other words, one tablet is equal in sweetening properties to about three ordinary lumps of sugar.

It is prepared by W. A. Dyer & Co., manufacturing chemists, Montreal.