

case, which was of a very grave nature, the tetanus was practically cured in 22 days, although the patient's illness lasted for some weeks longer. In the fatal case some degeneration of the brain was found corresponding to the site of the injection. Further observations of this method of treatment will be followed with the greatest interest.

II.—SURGERY OF BONES AND JOINTS.

The treatment of fractures.—Vitrac (*Presse Méd.*, Feb. 23, 1898) contributes a useful article, well illustrated, dealing with the *ambulatory treatment* of fractures of the leg, particularly emphasising the value of a movable stirrup incorporated in the plaster case. The accompanying figure (Fig. 1) is a reproduction of the double splint and stirrup which he advises. It consists of two wooden limbs to pass down each side of the leg. Their length necessarily varies, but they are usually about 40 cm. long, 4 cm. broad, and 4 mm. thick; they must be made of light, though strong wood, and the outer surface is best left unpolished, so as to allow the plaster to adhere to it more closely. The upper ends have metal plates attached, which can be moulded to the shape of the tibial tuberosities. The stirrup is made of metal, preferably aluminium, so as to reduce the weight of the apparatus, and works up and down the wooden side-pieces, in which slots are cut for the insertion of screws or bolts. The centre of the sole-piece is cut out so as to reduce the weight, and the under-surface is coated with leather. The stirrup is applied loosely, whilst the plaster casing is being put on, and, of course, the plaster extends under the foot between it and the stirrup. The limb is first encased in plaster in the usual way, a firm and strong extension pass-

Fig. 1.—Splint with movable stirrup for ambulatory treatment of fractures of the leg (Vitrac).

ing under the sole. The apparatus is applied to the outer side of this, and the upper end of it securely incorporated in the plaster case. The stirrup is then fixed by the bolts or screws at a suitable height, and when all is firmly consolidated the patient is able to walk or even run about. Thus, a child, twelve years old, was able to play about on the fifth day after a fracture of the leg in its middle third. As to fractures of the femur, Vitrac states that a similar apparatus can be employed, only longer and stronger, and with the

malleable metal supports at the upper end much larger, so that they can be moulded to the ischio-trochanteric region. He considers, however, that the cases of fracture of the thigh which can be advisably treated in this way are few in number, owing to the weight of the apparatus, which causes it to slip down and become displaced, thus permitting movement of the fragments.

The utility of *massage* in fractures is being more and more recognised, although some of the exaggerated statements which appeared a few years back are being discredited. One of the most sensible papers dealing with this subject is by Buscarlet (*Rev. Méd. de la Suisse Romande*, Dec. 20, 1897), who points out that to depend entirely on massage in fractures of the long bones is to court failure. His conclusions concur entirely with one's own opinions, viz. that in such cases a combination of the old plan of keeping the limb in splints with suitable massage and passive movement of joints, commenced at as early a date as is thought safe, will give the best results. There is no question that the bad results attending fractures of the long bones is not to be attributed entirely to the defective position in which the ends are allowed to unite, but rather to the impairment of movement of neighbouring joints, due to prolonged immobility, and to adhesions and fibroid changes occurring in muscles and their sheaths, due to the imperfect absorption and subsequent organisation of blood clot. Massage is an excellent means of assisting in the absorption of extravasations, and, of course, will prevent in a large measure the atrophy of the immobilised muscles. Hence the plan that ought to be followed is to apply light splints which can be easily removed and replaced, and then as soon as the callus is beginning to become firm, say, in ten or twelve days, or possibly earlier in some instances, the splints should be removed daily, and *séances* of massage, gradually increasing in length, should be instituted. Naturally this practice is more adapted to private cases than to hospital work, unless our students are regularly instructed in the methods of massage. Bennett (*Lancet*, Feb. 5, 1898) strongly confirms these statements, and follows the same practice.

When, however, we come to treat fractures involving, or in the neighbourhood of, joints, it is often found unnecessary to use any immobilising apparatus, beyond, perhaps, a sling for the upper extremity, and rest in bed for a week or two in the lower. *Colles's fracture* is one in which these principles ought to be followed very carefully; only too frequently do we see cases in which the deformity persists, and in which the movements of the wrist are subsequently much hampered, owing to adhesions of tendons and in the joint. Corson, of Savannah, Ga. (*Med. Record*, Jan. 15,

1898), contributes another paper on this subject. He points out that in many cases there is not only fracture of the lower end of the radius, but also fracture of the styloid process of the ulna, and rupture of the internal lateral ligament of the wrist, as indicated by the outward displacement of the whole hand, a point especially noticeable in skiagrams. To overcome this the wrist ought to be kept for a week or more on a splint which will keep the hand adducted and at the same time allow free mobility of the fingers; but as soon as possible the splint should be omitted and only a bandage or poroplastic protection worn, which is removed once or twice daily to allow of regular massage being adopted.

As to the *open treatment* of fractures but little has to be added to what was written in the "Year-Book" last year. Roberts and other surgeons emphasised its value in injuries about the elbow-joint at the discussion on the subject at the British Medical Association; Lane contributes another lecture dealing with it (*Clin. Journ.*, April 20, 1898); and Parkhill (*Annals of Surgery*, May, 1898) describes and illustrates a form of bone-clamp which he has utilised with advantage. It consists of four silver-plated shafts, which are introduced into the bone, two above and two below the site of fracture. Wing-plates are fitted to the outer ends with nuts, and these are clamped firmly together by cross-plates and screws. That immobilisation of the fragments can be secured in this way seems certain, but the apparatus is somewhat complicated, and the use of so many bolts and nuts is not desirable in work that requires above all the most complete asepsis. In fourteen cases, however, satisfactory union occurred without infection.

Treatment of fractures of the lower jaw.—Moriarty (*Boston Med. and Surg. Journ.*, Nov., 1897) publishes an excellent lecture, delivered at the Dental School of Harvard University, emphasising the fact that in the treatment of these cases dentists ought to be ready to undertake the main part of the work, viz. the preparation of a splint to fix the fragments. He recommends that an impression of the broken jaw should be taken in plaster or modelling composition, without attempting to replace the fragments. This is then carefully sawn in two at the site of the fracture, and the lower teeth are articulated with a similar cast of the upper jaw. The two portions are then fixed together, and a vulcanite casing moulded so as to fit accurately over the teeth. In the simpler cases this is all that is required to keep the fragments in position; but in the severer, where there is a considerable tendency to displacement, he advises that small slots should be vulcanised on to the splint, into which can be inserted wire arms. These wire arms are bent at the angles of the mouth, and extend backwards below

the ears, being fixed by a bandage behind the occiput; a bandage round each arm and beneath the chin gives the pressure required to hold the fragments in position. In still worse cases, *e.g.* where the fracture is in the region of the molars, and considerable pressure is required to prevent deformity, he adds a chin-plate to the apparatus, uniting it to the wire arms by screw bolts, which can be gradually tightened up until all displacement is overcome. Of course, in a certain proportion of cases failure will follow, owing to the occurrence of septic osteitis, but the general results that have been obtained are very good.

Injuries of the elbow-joint formed one of the subjects for discussion in the surgical section of the British Medical Association at Edinburgh (*Brit. Med. Journ.*, Oct. 29, 1898, p. 1317). Prof. Bennett pointed out the difficulty of diagnosis in the majority of cases, and alluded to one or more types of injury which were not infrequently overlooked. J. B. Roberts, of Philadelphia, read an interesting paper on the same subject (published in *Phil. Med. Journ.*, Sept. 24, 1898). He maintained that the chief cause of subsequent ankylosis is the imperfect reduction of fragments, or incomplete restitution of structural relations. He laid considerable stress upon the occurrence of what has been termed the "gunstock" deformity, in which the normal angle which exists between the axes of the humerus and ulna is lost, and which may be due either to immediate displacement of one of the condyles carrying with it the forearm, or to defective development of the lower end of the humerus as a result of interference with the epiphysis. A slight degree of this deformity does not cause much loss of power, but if it is at all marked, the functional utility of the limb for carrying purposes is a good deal impaired, whilst the appearance produced is not desirable. The plan he recommends in order to fix the condyles in position is to introduce long steel nails driven through the skin in such a position as may be indicated by skiagraphy. Ordinary nails may be employed in case of necessity, but they are not as a rule sufficiently tempered, nor are their points sharp enough. In more obscure cases he recommends exploratory incisions, and advises that on the outer side this should extend between the biceps and supinator. He also considers that the limb should be kept in the extended position, as less liable to lead subsequently to ankylosis. In contradistinction to this advice, Chiene and others heartily commended the fully-flexed position of the forearm, especially for separation of the lower epiphysis of the humerus with displacement of the fragment backwards; all that is required is to insinuate a layer of lint to keep skin from touching skin, and then bandage the arm firmly with the hand over

the shoulder. Nothing was said concerning massage by any of the speakers, with the exception of the President, who rightly pointed out its extreme value in most of the conditions to which allusion had been made.

But little fresh has been brought forward concerning *fracture of the patella* and its treatment, although much has been written, especially since the accident to the Prince of Wales. Lucas-Championnière (*Journ. de Méd. et de Chir.*, Aug. 10, 1898) condemns, in a strong article, the treatment which was adopted in this case, and points out that there is very little said in text-books as to the method of treatment by massage, which he considers ought always to be undertaken, when for any reason operative treatment is considered undesirable. By this means the effusion into the joint is rapidly absorbed, the mobility of the knee and of the other joints in the limb is maintained, pain is diminished, muscular atrophy is prevented, and the patient is able to walk without immobilising apparatus in from eight to twenty days. If any operation is undertaken, the open method of Lister should be employed, "rejecting absolutely all the more or less bastard proceedings which have been presented in order to diminish the danger run." As an illustration of the benefits of massage one may mention a case reported by Lilienthal (*New York Med. Record*, Feb. 5, 1898) in which the patient was out of bed and walking about eight days after the accident. Ball (*Practitioner*, May, 1898) recommends the use of a well-annealed eight-twist steel wire rope, instead of silver; it is immensely strong and does not kink. He turns up a horse-shoe flap of soft tissues, clears the ends of the bone, raising up short flaps of periosteum and tendinous tissues on each side. The steel wire is then inserted so as to encircle the bone in the way seen in the accompanying illustration (Fig. 2); the ends are twisted together at each side, beaten down upon the bone, and covered over by suturing together the periosteal flaps. The advantage claimed for this "cerclage" is that the fragments are often very friable, and a silver wire cuts through them like cheese. A case in which this treatment was undertaken is reported, and the girl was able to walk comfortably in a month.

An important statistical paper is contributed by C. A. Powers (*Annals of Surgery*, July, 1898), who collates the opinions of a large number of living surgeons, and also notes the results in 711 cases of operative treatment of the patella, gathered since Dennis's paper in 1886. In the latter the death-rate amounted to 4 per cent., in the former to 1.4 per cent., *i.e.* there were ten deaths, and of these only three were attributable to sepsis. As to stiffness, this was marked in 10 per cent. of the earlier cases, but only

in 3 per cent. of the later. Powers concludes that osseous suture by an open arthrotomy gives by far the greatest percentage of complete union, and further is convinced that it is followed by the smallest percentage of re-fractures.

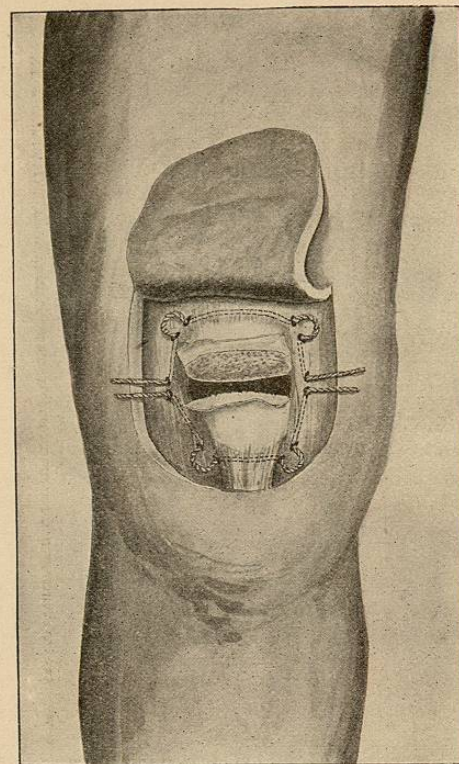


Fig. 2.—Method of introducing steel wire around the patella. (Ball.)

Backward dislocation of the thumb.—J. Hutchinson, Junr. (*Brit. Med. Journ.*, Jan. 15, 1898) maintains that the usual explanation vouchsafed by surgical text-books as to the difficulty of reducing this dislocation is not satisfactory. It is commonly stated that the head of the metacarpal bone is displaced forward and grasped by the two tendinous insertions of

the flexor brevis pollicis, somewhat like a button in a button-hole. This he considers fanciful and points out the fact that attached to the base of the first phalanx is a strong fibro-cartilaginous ligament, known as the glenoid ligament, at the ends of which are located the sesamoid bones. This ligament is detached

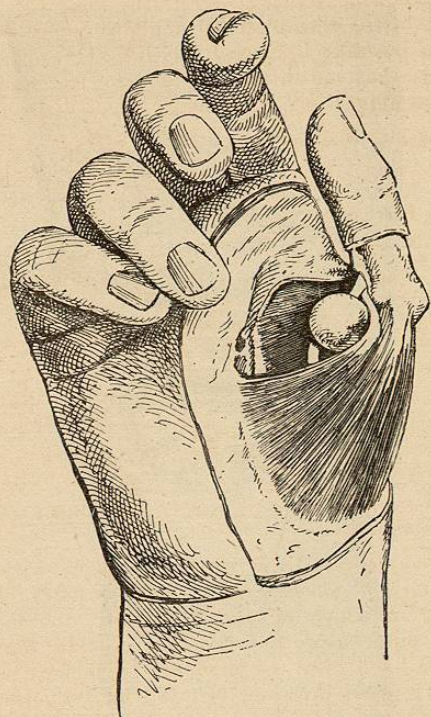


Fig. 3.—Backward dislocation of thumb, showing the tendon of the flexor longus pollicis stretched over the head of the first metacarpal. (*J. Hutchinson, Junr.*)

from its insertion into the head of the metacarpal and travels backwards with the phalanx, and either outwards or inwards according to the direction taken by that bone, more frequently the latter. In addition to this the tendon of the flexor longus pollicis is torn out of its fibrous sheath and stretched over the head of the metacarpal (Fig. 3). Should the usual manipulations fail in bringing about reduction, Hutchinson is very strongly of opinion

that no operative measures should be undertaken from the front. All that is necessary, according to him, is to divide the glenoid ligament in its centre between the two sesamoid bones, when sufficient space is gained to allow of the reposition of the phalanx. This division is accomplished from the back by a tenotome, which is introduced just behind the base of the phalanx opposite its centre, the extensor tendon being easily avoided (Fig. 4). No bleeding is caused by this little operation. Hutchinson states that on three occasions he has undertaken this operation, and reposition was easily effected in all, although

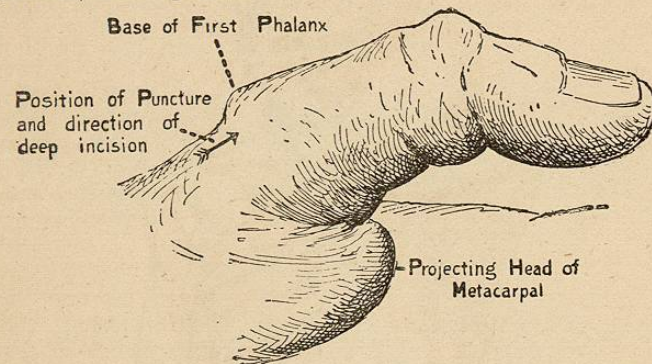


Fig. 4.—Operation for reduction of backward dislocation of thumb. (*J. Hutchinson, Junr.*)

prolonged attempts had been made previously without success. Kammerer (*Annals of Surgery*, May, 1898, p. 654) relates a case of this nature in which he had to operate, the incision being made on the outer aspect of the thumb. He found the long tendon tightly fixed over the head of the metacarpal, and was only able to replace this and bring about reduction by freely dividing the external lateral ligament. Vitrac (*Rev. de Chir.*, March, 1898) discusses, in a long and exhaustive article, the uncommon dislocations of the thumb backwards and outwards, and though admitting that the glenoid ligament is an important factor, is rather inclined to lay the greatest stress upon the displacement of the long tendon; possibly this is true for the external dislocations, though Hutchinson's paper makes it very doubtful concerning the internal forms.

Treatment of acromio-clavicular dislocation.—Rheads, of Philadelphia (*Annals of Surgery*, Jan., 1898, p. 40), describes a method of dealing with the troublesome accident, by which it is

hoped that the constant tendency of the scapula to slip down from the end of the clavicle may be counteracted. A wedge-shaped pad of absorbent cotton wool rolled in a towel is placed under the arm, the apex being pressed firmly into the axilla. A folded towel is placed over the top of the shoulder, and a good pad of wool under the elbow; a strap two inches wide is then passed over the shoulder and under the elbow, and tightened; an ordinary trunk strap will do very well. The point of pressure

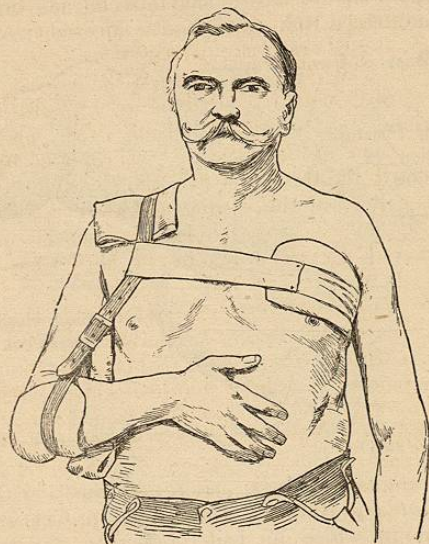


Fig. 5.—Method of applying dressing for acromio-clavicular dislocation. (Rhoads.)

must be internal to the joint so as to control the clavicle and trapezius, and a single retaining bandage passed under the opposite axilla will prevent it from slipping outwards (Fig. 5). The arm is then bandaged to the side with an ordinary roller bandage, the buckle of the strap being, however, left out so that it may be tightened up from time to time as may be necessary, without disturbing the rest of the dressing. In the particular case reported it was kept on for three weeks, and then merely a spica applied round the shoulder; a very good result was obtained.

Ankylosis of the jaw is always a difficult matter to treat, owing to the great tendency of the bony tissues to reunite consequent upon the traction of the muscles bringing the raw surfaces

into apposition after any of the ordinary sections. Esmarch's operation of resecting the angle of the jaw is not altogether satisfactory, since it forms a new joint below the insertion of the masseter and pterygoids. To obviate this it has been suggested to fix some tissue or substance between the two segments and thus prevent the osseous reunion. Two illustrative and successful cases have recently been reported. In one, Roser (*Cent. f. Chir.*, No. 5, 1898) excised the articular surfaces, and then interposed a thin sheet of gold moulded into shape, which not only prevented union, but also helped to keep the parts in position. A second plan was adopted by Krajewsky (noticed in *Cent. f. Chirurg.*, No. 10, 1898), who had to deal with a case of osseous ankylosis in a girl of thirteen due to suppurative arthritis following variola. A vertical incision was made in front of the ear, a portion of the zygoma was resected, and then the bony mass formed by the union of the condyle and coronoid process with the base of the skull was chiselled away. A flap of the temporal muscle was stitched across the interval, and the wound sutured up. The results in both cases were most satisfactory.

Interscapulo-thoracic amputation of the upper extremity.—Two successful cases of Berger's operation were reported by Barling (*Trans. Clinical Soc.*, 1898, p. 175), in which sarcomatous limbs were removed. One patient had perfectly recovered, the other died six months after the operation from general dissemination of the disease. Stanley Boyd and Spenser each referred to successful cases, and the general opinion expressed by members of the Society was that very much less shock results than might be anticipated from the extensive nature of the operation, and that it might with advantage be undertaken more frequently than it is. Barling also stated that, in his opinion, simple amputation at the shoulder-joint was in many cases quite insufficient for sarcoma of the humerus. Another point emphasised was that one of the chief difficulties consisted in securing the subclavian vein without wounding it, and to effect this it was advisable to remove rather more of the clavicle than Berger originally recommended.

Reference may also be made here to a paper by Berger (*Bull. et Mém. de la Soc. de Chir. de Paris*, tome xxiii., 1897) dealing with the question of total resection of the scapula for malignant disease. In not a few cases it is difficult to ascertain whether or not the axillary vessels and brachial nerves are involved in the mass, and it is essential that the first step of the proceeding should settle this question, as if they are encroached on at all seriously, amputation of the whole upper extremity is required.

He therefore recommends that the superior and posterior borders of the mass should first be exposed by suitable incisions, and that then the clavicle should be divided in the middle and the two ends separated sufficiently to allow the vessels and nerves to be explored. In favourable cases the deltoid is next detached from the acromion process and spine of the scapula, and the acromio-clavicular joint opened up, or the acromion sawn off. The shoulder-joint is opened and the muscles passing from the scapula to the head of the humerus are divided, whilst the coracoid process is cleared as well as the superior and axillary borders. The bone can then be turned over backwards, opening up the interspace between the subscapularis and serratus magnus, and finally the muscles connecting the posterior border to the spine are divided. This operation is a considerable modification of the old one, which dealt first with the upper border, then with the posterior, turning the scapula outwards and forwards, and opening the shoulder-joint from the front. It is certainly the plan that ought to be adopted in any case where the surgeon is not clear as to the freedom from disease of the main vessels and nerves.

Resection or exploration of the shoulder-joint.—Oscar Wolff (*Centr. f. Chir.*, No. 6, 1898) points out that tubercular disease of the coracoid process sometimes arises in connection with a similar affection of the joint; it is never primary, and always spreads by direct extension to the glenoid cavity and neck of the scapula. When operating on such cases the ordinary incision from the front will scarcely suffice, and Wolff therefore recommends Bardenheuer's operation. The incision is a curved one, with its convexity upwards, commencing over the coracoid process, passing over the acromio-clavicular articulation, and ending behind over the base of the acromion. The deltoid is detached from its origin and turned outwards, the acromion is sawn through behind and either removed entirely or turned forwards on the acromio-clavicular joint as an axis. The head of the humerus and the muscles inserted therein are thereby exposed, and by dividing the latter the interior of the joint can be fully explored. The head of the bone is then sawn off, whilst the glenoid cavity and coracoid process can easily be chiselled or gouged away.

Senn (*Phil. Med. Journ.*, Jan. 1, 1898) recommends a somewhat similar proceeding, differing from Bardenheuer's mainly in the position of the incision. He commences it over the coracoid process, and carries it downwards and outwards in a gentle curve as far as the middle of the deltoid, when it is continued in a similar curve upwards and backwards as far as the posterior

border of the axillary space on the same level as it was commenced—*i.e.* a point opposite the coracoid process. The semilunar flap thus marked out is dissected up as far as the base of the acromion process and reflected. The acromion is then sawn through and turned down together with the deltoid. The subsequent steps of the operation are modified according to the condition to be dealt with, but afterwards the acromion is stitched or wired into position, and the cutaneous flap sutured down. The advantage claimed by Senn over the former method is that the cicatrix does not fall over the point of the shoulder, but is below it, and thus protected from irritation and injury.

Bone grafting.—Ricard (*Presse Méd.*, Feb. 5, 1898) related two most interesting cases to the Académie de Médecine. In the first a woman was operated on in 1891 for a large osteosarcoma of the frontal bone, the removal of which laid bare the meninges for a considerable distance. The defect was at once made good by grafting in the iliac bone of a dog, removed at the time with every aseptic precaution. Perfect union occurred, and when the patient died five years later from general dissemination of the disease, the graft was still firm and in place. The second case was one of the so-called "saddle-nose," due to inherited syphilitic disease. Twice previously had she been operated on, and a platinum plate had been incorporated between the skin and mucous membrane, but without benefit. Ricard first operated in 1896, and removed the platinum plate, subsequently allowing the wound to close entirely. He then incised the nose in the middle line, and carefully separated the skin from the mucous membrane, taking the most scrupulous precautions not to injure the latter. Hæmostasis was effected by the pressure of a gauze plug, and during the interval the fourth metatarsal bone was resected in its entirety. Its ends were removed, and shaped up so that it might lie comfortably in the depths of the nasal wound, being wedged into a notch cut in the frontal bone above, lying in front of the rudimentary and depressed nasal bones in the middle, and behind the soft tissues constituting the tip of the nose below. The soft parts were then stitched together, and a most carefully adapted antiseptic dressing applied. The graft "took" splendidly, and the wound healed without difficulty. The patient was seen eighteen months afterwards, and it was then found that the graft had been entirely absorbed, but was represented by a rod of fibrous tissue which, though supple, was firm enough to maintain the shape of the nose, which had not become depressed in the least. Ricard's conclusions as to these cases are as follow:—(1) That grafts of living bone can be transported into the human organism without fear of elimination, given

the most scrupulous asepsis; (2) that such grafts may persist or be absorbed, leaving, however, in their place a tract of fibrous tissue whose solidity can be counted upon; (3) that autoplasmic grafts do not present a greater chance of persisting than heteroplasmic. Lane (*Clin. Journ.*, April 20, 1898) also relates a successful case of bone-grafting in a child whose ulna was developed in two portions, an upper and a lower, the ends of which overlapped and were not in contact; in consequence, the forearm and hand were becoming greatly deformed. He cut down, freed the ends, brought them into line, and spliced them together by means of a rabbit's femur split in two and laced to the fragments by silver wire. The effect of this operation on the appearance and utility of the arm was most marked.

III.—SURGERY OF THE HEAD.

Craniectomy.—The practice of turning down large portions of the skull, together with the scalp tissues, as recommended by Wagner, has led to the suggestion of many mechanical devices with the object of accomplishing this without undue loss of time or blood and without injuring the brain. Various electrical engines have been recommended, but the simplest of all the devices seems to be that of Gigli, a Florentine surgeon (*Centr. f. Chir.*, Aug. 14, 1897, and April 23, 1898). In the same journal Obalinski (No. 32, 1897) and Baratz (No. 3, 1898) have spoken favourably of this proceeding. Keen (*Phil. Med. Journ.*, Jan. 1, 1898) also describes the method, and relates his experiences, which were most favourable. The plan consists in the division of the skull by means of a saw, which consists of a piece of roughened steel wire about 35 cm. long and about 0.5 mm. or more in diameter, with a loop at each end, to which a handle can be attached (Fig. 6). Two or more trephine openings are made, marking out the limits of the flap; through this the dura mater is separated along the lines of incision and the saw introduced. The handles are then attached, and by moving the saw to and fro the skull is cut through. Keen points out that by this means the sections through the bone can be bevelled in such a way that, when replaced, the osseous flap does not tend to sink into the cranial cavity, but retains its normal level; in fact, it is only necessary, and often only possible, to effect this bevelling in the centre of the cut, but this will suffice for the purpose. It is also possible by this means cleanly to divide the inner table along the base of the flap and thus avoid the ragged rough edges which are usually left if the base is merely broken through. A number of the Gigli saws have to be kept, since after being once used they curl up, lose their rough margins, and cannot be employed again.

Codivilla (*Centr. f. Chir.*, No. 16, 1898) recommends a somewhat complicated craniotome for a similar purpose. It consists of a strong screw-like centre-piece, which is firmly driven into the skull, and upon which works a movable metal arm capable of carrying a knife for the section of the skin, or an osteotome for division of the bone. The flaps made in the bone must thus be arcs of a circle, and to perform a large craniectomy the centre-piece is fixed in three spots one after the other; by this means a trefoil-shaped flap, including almost the whole side of the head, can be removed without much difficulty. He has used it on three occasions on the living subject, and is fully satisfied with the results given. The operation was quickly over, the loss of blood was slight, and no injury accrued to the dura or middle meningeal artery. In all of these cases the application of an Esmarch bandage round the skull minimises bleeding and renders the proceeding much more rapid.

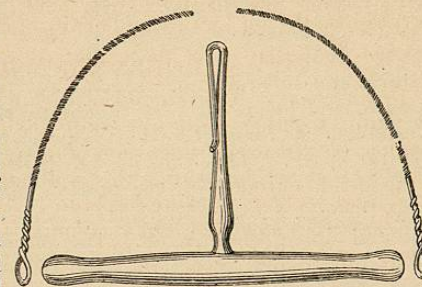


Fig. 6.—Gigli saw.

Doyen, of Rheims, related the results of his *hemi-craniectomy* cases at the German Surgical Congress (*Centr. f. Chir.*, App. to No. 26, p. 66, 1898). He has performed it on a number of cases of idiocy and microcephaly, and states that marked improvement has been noted. In his first, an idiot with Graves's disease, the child was unable to speak or even to recognise his relatives. Both sides of the skull were operated on, and in four days the goitre and exophthalmos had disappeared, whilst at the time of the report the child was able to speak and to count. Two cases of epilepsy have been free from attacks for five and six months respectively after operation. He has had one good result for Jacksonian epilepsy, the epileptogenous centre being found by electrical stimulation of the cortex and excised. Several cases of deeply situated abscesses have been dealt with, as also one case of cyst in the cortex, and one subcortical tubercular focus.

Joseph Griffith (*Royal Med.-Chi. Soc.*, London, March 8, 1898) read a paper dealing with linear craniectomy in the treatment of *microcephaly*, and although on the whole he admitted the truth of the conclusions which are generally drawn, and which were noted in the "Year-Book" for 1896, pp. 197, 258, yet he