she is now in good health, and the digestive functions are performed in a very satisfactory manner.

All surgeons, however, are not in favour of the practice here followed by Mr. Erichsen with such happy results. Scarpa, for instance, condemned the sutures with much warmth, and Samuel Cooper sides with him in the following terms:—"The very nature of the process by which the reparation of wounds of the bowels is effected, is a weighty argument against the employment of a suture. In their cicatrization they follow quite a different course from that of simple wounds of the skin, muscles, or any other part of the body; their edges never become immediately applied to each other, and therefore strictly speaking they do not re-unite. Their cure is altogether completed through the medium of the surrounding parts; that is to say, by the adhesions which the intestines contract with the great sac of the peritoneum lining the cavity of the abdomen, or with the productions of this membrane, which compose the external covering of the greater part of the viscera."

And further,—"Unless, therefore, it be allowable to suppose, not only that the divided portions of bowel can be sewed together so closely and accurately at every point as to remove all possibility of effusion of its contents, but that this can also be done without risk of exciting inflammation of the bowel, thus handled, dragged, and stitched, I must agree with Scarpa, respecting the impropriety of thus boldly sewing up wounds of the bowels, with as little scruple as a hole in a glove." And, lastly,—"We may therefore infer, with Mr. John Bell, 'that if there be a work of supererogation in surgery, as I believe there are but too many, surely this of sewing an intestine is one.'" And yet this very practice, so vehemently condemned, has certainly saved life in many instances, and very probably in the case which we have just mentioned.

KING'S COLLEGE HOSPITAL.

Internal Abscess of Bone.

(Under the care of Mr. HENRY LEE.)

THE subject which is this day fixing our attention is intimately connected with a fact very flattering to British surgeons—viz., the signal service rendered by Sir Benjamin Brodie to surgical science by the originality of his researches and valuable therapeutical inferences regarding abscess of bone. Indeed, when we consider that Sir Benjamin's elucidations touching this very painful affection form but a small portion of the valuable labours which have shed so much light on modern surgery, we feel inclined to think that the names which will hereafter be chronologically attached to those of Wiseman, Pott, Hunter, Abernethy, Astley Cooper, Liston, &c. &c., will be full worthy of such association.

That the surgeons of Great Britain have contributed a large share in the advancement of their profession cannot be for a moment doubted; a sketch of the services they have rendered would form a very interesting historical retrospect, and we would recommend this subject to some of the talented gentlemen who have this year been entrusted with the introductory lectures at our medical schools. Such a picture would certainly act as a powerful incentive to young men, and that it could be brought down to a very recent period is proved by a discussion which lately took place at the Academy of Medicine of Paris. The debate arose out of a paper of M. Malgaigne on a new (?) treatment of fistulous tubercular testicle, and the names of Sir A. Cooper, Mr. Syme, and Mr. Curling, were constantly brought forward.

In returning to abscess of bone, we find that Sir B. Brodie was first led to recognise the disease in question by a case referring to a young man, twenty-four years of age, where all the now well-known symptoms of abscess of bone were manifested; the limb was amputated, and a cavity as large as a small chestnut found in the lower portion of the tibia. Sir Benjamin says, in his lecture on the subject, "On observing these appearances, I could not help saying, that if we had known the real nature of the disease, the limb might have been saved."

The author mentions nine cases which since that time have been treated by himself; in the first five the abscess was situated in the lower end of the tibia, the patients being all young. In each of them the trephine was used with the best results. Sir Benjamin justly says, in his remarks upon these cases, "It is satisfactory to know that this simple method of treatment has already preserved many limbs which must otherwise have been sacrificed, and it cannot be doubted that it will be the means of preserving many more, [this prediction has been fully accomplished,] when it is more generally

adopted by those who are engaged in operative surgery." We now beg to call the attention of our readers to the case lately under the care of Mr. Lee.

The patient, James S.—, aged twenty-six, of a dark complexion and spare make, was admitted August 12, 1851, under the care of Mr. Lee. He stated that, seven years and a half ago he begun to experience great pain in the tibia about midway between the knee and ankle, the paroxysms occurring principally at night, and leaving him at about five in the morning. There was at that period no tenderness upon pressure, and the pain continued for nine weeks. A recurrence of these attacks has occurred occasionally down to the present time. About three months ago the patient struck his shin against a chair; on the same day he experienced severe pain, which soon became so intense that he could not sleep at all at night for so much as four weeks. A blister was applied at this time, the effect of which gave him ease for about five or six days, but the patient, having indulged rather freely in ardent liquors, the pain recurred as severely as before.

Mr. Lee advised the application of another blister; the denuded surface was kept open for three or four days, and this counter-irritation gave relief again for about seven days, but without any apparent cause the pain returned. Mr. Lee considered that this state of things was in all probability connected with a limited abscess within the bone, as on the spot to which the pain was referred there was neither swelling, redness, nor tenderness; he therefore determined to penetrate the shaft of the tibia with the trephining instrument, and evacuate the supposed purulent collection.

The patient was carried into the operating-theatre, and chloroform having been administered, Mr. Lee made an H-shaped incision over the tibia, about midway between knee and ankle, on the spot where the pain was complained of. A small trephine was applied to the bone, when the integuments were reflected, and a circular portion of osseous substance, about two inches thick, was removed. As the trephine was perforating the lowermost portions of the bone, a small quantity of glairy-looking fluid oozed out, and on entirely moving the detached bone, about two drachms of a white pultaceous sort of pus escaped. Very little blood was lost during the operation; the edges of the wound were lightly brought together, and the patient stated, when he had recovered from the effects of chloroform, that the pain had quite disappeared. No constitutional disturbance occurred; the wound progressed favourably, and about a month after the operation it was almost cicatrized. The distressing pain which had for so long a time embittered the patient's life, has not recurred, and it may fairly be now supposed that a permanent cure has been established.

We have somewhere read that this affection attacks principally people of middle or old age, but the preceding case, as well as those treated by Sir B. Brodie, will tend to invalidate this opinion, as the patient here was only twenty-six. Mr. Liston operated upon a policeman, twenty-two years of age, affected exactly like Mr. Lee's patient, and the same means brought about the same results; it should likewise be noticed that in both cases the abscess was situated in precisely the same locality; and it would form a nice subject of inquiry why the shaft of the tibia is so obnoxious to this affection.

It should not be overlooked that abscess of bone, when left to itself, may eventually cause the complete disorganization of the tibia, or materially interfere with the knee or ankle joint, or, at best, when the matter finds an issue outwardly, leave an intractable fistula, with thickening of bone.

As to the symptoms, Sir Benjamin Brodie expresses himself as follows:—"When the tibia is enlarged from a deposit of bone externally when there is excessive pain, such as may be supposed to depend on extreme tension, the pain being aggravated at intervals, and these symptoms continue, and become still further aggravated, not yielding to medicine or other treatment that may be had recourse to, then you may reasonably suspect the existence of abscess in the centre of the bone."

Mr. Partridge, of King's College Hospital, had, some years ago, a patient thus affected, under his care; the man died of an internal affection—but we fully remember the post-mortem examination, which, on a longitudinal section of the tibia, brought to view, close to the malleolus, a small cavity in the interior of the bone, which communicated with the external surface by a narrow but very distinct canal. A somewhat similar case is mentioned in Sir Benjamin Brodie's lecture. It has been noticed that such abscesses may, on becoming chronic, gradually enlarge by the absorption of the cancellous substance, and expansion and thickening of the laminated surface. The matter pent up is generally mixed with debris of

osseous structure, and very offensive; we recollect a case of this nature under the care of Mr. Hilton, at Guy's Hospital. The tumour, situated on the lower part of the femur, was at first looked upon as exostosis, but the steps of the operation proved it to be of a pyogenic nature. We shall take an early opportunity of bringing this case before our readers; it will form a very appropriate sequel to the one which we have just detailed.

The museums of our hospitals possess pathological preparations illustrating this disease. At the Middlesex Hospital, No. iv., 6, is a good specimen of abscess in the lower end of the tibia, close to the ankle-joint; and No. iv., 31, in the head of the femur.

LONDON HOSPITAL.

Extraordinary Impaction of the Head of a Large Screw into the Wrist-joint.

(Under the care of Mr. CURLING.)

THOSE who have carefully dissected the wrist-joint, and have followed, with the scalpel, the closely set and waving line of the eight little bones forming the carpus, remember full well how tightly these bones are bound together, and how difficult it is, even with a sharp instrument, to separate these connexions. They will easily conceive that this joint may be crushed or fractured by a weighty body or great violence, but they will with difficulty believe that the head of a screw, more than one inch and a half square, may be thrust between the carpal bones, so as to be completely embedded and hidden, either between the rows, or between the upper row and the articular extremity of the radius.

Indeed, we venture to say that the screw of which we give an engraving below, might be placed in the Pathological Museum of the Royal College of Surgeons of England, by the side of the celebrated shaft which was forced through the chest of Mr. Thomas Tipple, in the year 1812, and the iron pivot which passed obliquely through the body of the German sailor, in 1831.

It will be remembered that Mr. Tipple, under the care of Mr. Maiden and Sir W. Blizard, made a good recovery, and died eleven years after the accident; the sailor likewise recovered, and is probably alive at the present moment. We are aware that in the present case, life was not so miraculously saved as in the above two instances, but the nature of the accident deserves to be recorded, as it is not likely ever to occur again, and since the possibility of its happening might *a priori* have very properly been doubted. We are indebted to Mr. Brushfield, house-surgeon to the hospital, both for the details of the case, and the drawing from which the engraving is taken.

William M—, aged thirty-seven, a lucifer-splint cutter, residing in Stepney, was admitted into the London Hospital under the care of Mr. Curling, on the morning of May 6th, 1851, on account of a large screw with an hexagonal head being impacted in the right wrist-joint. The history he gave of his accident was as follows:—

The knife used in cutting the splints was driven by a steam engine, of eight-horse power, and worked horizontally backwards and forwards in a fixed frame, there being two screws at the posterior part to regulate its motion. At the time of the accident, his right hand was resting upon the frame, and without his being aware of it, the machinery was set in motion; as the knife moved backwards, his hand became fixed between the frame and one of the regulating screws, and the motion being still continued, the head of the latter was forced into the joint, and became firmly fixed there, the sensation at the time being that of a dead weight upon the part. His hand accompanied the knife in its motions until the machinery was stopped, and then, after some difficulty, the screw was filed through, the major part being left in the limb. He was placed in a cab, and brought to the hospital immediately.

Examination.—The limb supinated. On the dorsal surface of the wrist-joint, and opposite to the metacarpal bone of the index-finger, about half an inch of the screw presented itself above the level of the surrounding skin. Let it be well understood that the hexagonal part was stuck in the wrist, and that only half an inch of the circular part was projecting from the surface. When laid hold of, and the hand partly flexed, it could be slightly moved, but when extension took place, it was quite immovable. The skin on the ulnar side was slightly lacerated, but on the radial it was inverted, and embraced the foreign body so tightly, that the smallest probe could not be passed between the two. Around the wound was a small oozing of blood, mixed with synovia.

By means of a scalpel the wound was dilated in either

direction, and after some time, and no small amount of force the foreign body was extracted, a discharge of synovial fluid following this release. During the period of the extraction, the patient was faint, and felt very sick, but immediately afterwards he expressed himself as being in a state of comparative ease. Some small fragments of bone were removed, but there was no bleeding. The limb was placed on a straight splint, and the wound dressed with strips of wet lint. The following is a representation of the screw, exactly of the natural size, *a a* to *b* being the portion above the level of the skin, and *c* the irre-

gular hexagonal head, which had been completely impacted in the joint. Thirty drops of laudanum were administered; the patient slept very comfortably during the evening and early part of the night. On the following day he was very feverish, and continued so for nearly a week, by which time a large quantity of pus began to flow from the wound daily. A linseed-meal poultice was then applied in the place of the wet lint. The lower part of the forearm then began to swell and inflame; and as soon as fluctuation could be detected, Mr. Curling made an opening, which measure was followed by the exit of a purulent matter.

Inflammation, occasionally reaching to the arm, continued to recur at irregular intervals for five weeks, during which period several abscesses formed around the joint, and were opened. On June 8th (about five weeks after admission) great swelling and redness of the parts around the primary wound had taken place, and the pus, which had hitherto flowed freely, was scanty in quantity, and of a different colour from that discharged from the other openings. A probe was carefully inserted between the edges of the wound, and some obstruction was distinctly felt about half an inch below the surface of the skin; a fine pair of dressing forceps was then used to extract the foreign body, which proved to be a small portion (about three-quarters of an inch square) of the woollen coat, carried into the joint at the time of the accident.

The next day a large piece of loose bone presented itself on the anterior surface of the joint: it was cut down upon and extracted, the patient experiencing great relief from its removal. From this time the openings of all the abscesses, four or five in number, gradually closed, and the original wound occasionally discharged small fragments of bone previous to its perfect closure.

The patient was discharged on August 7, three months after admission, and ordered to attend as an out-patient. He was then able to move his fingers without giving himself the slightest pain, and all swelling had subsided.

It is very remarkable that the head of the screw impelled by the force of the engine did not crush and fracture the bones entering the wrist-joint, but that these in some degree gave way and receded before the compressing action of so blunt a body as the large head of a screw. The latter is in the possession of the surgeon, and we still think, as stated above, that, accompanied by an appropriate drawing, representing the wrist-joint at the moment the patient was admitted, it would be very advantageously placed by the side of the shaft and iron pivot.