was made over the inner aspect of the ankle-joint, and through it the tibia was brought backwards till the broken fragment could be fitted accurately in position. A screw was driven through the malleolus into the lower end of the tibia, fixing the fragments securely in apposition, and restoring both the tibia and fibula to their normal form. The result was excellent (Fig. 12), the patient rapidly regaining the use of the limb.

These cases illustrate very well the use of the several appliances—screw, wire and staple—under varying conditions, and all with complete success.

I may say that age is no barrier to operation; indeed, in old people an operation is often more imperatively called for than in vigorous life, for the reason that prolonged recumbency in old age is a very serious matter, often entailing of necessity a fatal result. The shock sustained because of surgical interference is trivial, and old people bear operations very well indeed.

REFERENCE.

¹ Une agrafe pour sutures osseuses, *La Presse Médicale*, December 25th, 1901.

OPERATIVE INTERFERENCE IN FRACTURED CLAVICLE.

By H. N. TAYLOR, M.A. CANTAB., M.A., M.D. DUBLIN,
F.R.C.S. Edin.

Surgeon-Captain, Army Medical Reserve; late (temporary)
Surgeon-Captain in the Army.

THE patient, No. 6074 Private A. E. S., 5th Royal Irish Lancers, was admitted into my wards in the Colchester Station Hospital on March 28th, 1903, having sustained a fracture of the left collarbone, which was treated by Sayre's method. At the end of three weeks, however, there was no sign of union or of any formation of callus; the ends of the bone were, therefore, well rubbed on each other, and the arm secured as before.

After the lapse of another fortnight, there being still no evidence of any attempt at union, the arm was simply placed in a sling, in the hope that the somewhat limited mobility thus allowed would excite the formation of the encircling callus usual under such circumstances.

By the end of May, however, not only had the clavicle remained ununited but there was not the slightest evidence of any preparation for union, and the patient was very anxious that "something should be done" to enable him to return to his duty—an anxiety which was increased by the fact that a comrade who had been admitted on March 29th had now been discharged from the hospital. I therefore decided to cut down on the clavicle and wire the fragments.

Adopting Mr. Barker's plan¹ I turned up a semilunar flap including some muscular fibres, and exposed the clavicle. There was no false joint, as in Mr. Barker's case, and no formation of any ensheathing callus, but merely a very thin layer between and strictly limited to the surfaces of the fracture.

I decided not to remove any bone, but after refreshing the surfaces, I passed a stout silver wire from above downwards and a little forwards, about $\frac{1}{2}$ in. from the ends of each fragment. The wire was tightened and twisted, thus securing firm apposition, and the ends were nipped off and bent well under the bone to guard against any subsequent irritation from the pressure of braces or shoulder straps.

The wound, which was dressed with iodoform gauze and a large pad of salicylic wool, healed readily, though there was some little delay from a small stitch abscess.

The arm was secured to the side by firm bandaging, and there was at no time any exuberant formation of callus. The man was discharged on "sick furlough" on July 14th with an apparently firmly-united clavicle and with no impairment in the mobility or usefulness of the arm.

If I may venture to express an opinion, I think that this operation might be performed more often than it is in the case of delayed union of the clavicle, with the advantage to the patient of a considerable saving of time, and in those cases of deformity, especially in women, produced by a vicious union, Jacobson considers the procedure quite justifiable. The structures beneath the clavicle are, as the same authority points out, rendered quite safe by the interposition of the subclavius muscle.

My thanks are due to Major Beyts, R.A.M.C., for his kind assistance during the operation.

REFERENCE.

¹ Jacobson's *Operations of Surgery*, vol. i, p. 187, 1902.

A CASE OF CONGENITAL SYNOSTOSIS OF BOTH UPPER RADIO-ULNAR ARTICULATIONS.*

By S. HAMILTON, B.A., M.B., B.CH.,
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THE defect in this case is clearly shown in the two radiographs which are here produced. There is a complete bony fusion of the radius and ulna at their proximal ends in both arms. I have described it as synostosis because the condition is congenital, as the history will show, rather than

Fig. 1.—Normal elbow (for comparison).

ankylosis, because this term is generally applied to the result of a pathological process, such as acute suppurative arthritis, tuberculous joint disease, or chronic rheumatism.

The patient is a man aged 32. His mother, who is alive,

Fig. 2.—Congenital synostosis of right upper radio-ulnar articulation.

gives a very clear history of the case. Nothing unusual was noticed until between the age of $3\frac{1}{2}$ and 4 years, when he was

* Read before the Monmouthshire Division of the British Medical Association (and patient shown), November 25th, 1904.