REPORT OF A CASE OF RECURRENT DISLOCATION OF THE ELBOW

W. Emmet Spring, Melbourne, Australia

A man of twenty-four dislocated his left elbow when he fell backwards on to the outstretched hand. The dislocation was reduced on the spot; the method used is unknown but it is thought to have been by traction. Thereafter the elbow was dislocated repeatedly with different degrees of violence. The first recurrence was seven months after the first dislocation. The frequency with which dislocations recurred gradually increased until six years after the initial injury they were occurring every few days. He estimated that the elbow had been dislocated about thirty times. Reduction by a medical man had never been required: traction in extension reduced it without difficulty. Incidents which produced dislocation included pushing a trailer above his head, punching a punch-bag, leaning on the extended arm in bed, tossing pennies while playing "two-up," turning off the tap in a shower-bath, and swimming overarm—in this incident the elbow became dislocated when pulling through water and was reduced spontaneously when coming out. The patient was left-handed and was not conscious of instability except when dislocation actually took place.

On examination, the patient was well developed and of athletic type. There was no muscle wasting or weakness. Flexion-extension movements of the left elbow were of normal range, but there appeared to be some increase in lateral mobility. Under general anaesthesia the elbow was dislocated without difficulty, especially when the elbow was extended. The dislocation was backwards and upwards. Radiographs confirmed the displacement, and showed some loose bodies in the joint; there was no evidence of fracture of the coronoid process.

**Operation (July 1949)**—The technique to be described was devised by the writer to stabilise the joint. The elbow was exposed by a U-shaped incision with the limbs in the axis of the humerus on medial and lateral aspects, the loop of the incision passing around the upper part of the forearm on its posterior aspect. The ulnar nerve was isolated, freed and retracted. The joint capsule was inspected and found to be lax. The joint was opened and blood-stained fluid released. There was some lipping of the trochlea but no evidence of osteochondritis was seen. The capsule was plicated, and the joint further stabilised in the following manner. A strip of triceps tendon was dissected out, leaving its olecranon attachment intact. The strip was transposed to the medial aspect of the joint and buried in a bed made for it in the origin of the common extensor group anterior and distal to the medial epicondyle. There was an excess of length which allowed the tendon to be brought back to the olecranon more distally. As the triceps tendon was insufficiently developed to provide two strips, a strip of fascia lata was used to perform a similar function on the lateral aspect, being sutured to olecranon and lateral epicondyle. Essentially the effect of the operation was that new collateral ligaments were constructed, their attachments being in the approximate axis of movement of the humero-ulnar joint.

**Post-operative treatment**—The arm was immobilised at right angles in a plaster slab for three weeks. The only complication was the sloughing of a small area of skin due to the base of the " U " being too narrow in relation to the length of the limbs.

**Progress**—When last seen nearly two years after the operation the patient had had no further dislocations. There was some clicking in the joint, attributed to loose bodies not located at operation. There was a full range of painless movement of the elbow and power was normal.

**Addendum**—A further case of recurrent dislocation of the elbow has recently been seen by Mr J. Jens, in a boy of twelve years. An operation similar to that reported here was undertaken. So far there has been no further recurrence.