When he made an attempt to raise the arm, it was easily perceived that motion was confined to the scapula alone, and that the humerus did not participate in it. The elbow joint was free from disease, and the forearm and hand were strong and their muscles well developed.

As this condition of the parts did not improve, and as the patient's health was rapidly declining, owing to frequent attacks of diarrhœa, vomiting, and constant pain, I proposed to him, to have an operation performed, by which the head of the humerus and any diseased bone in the vicinity of the joint should be removed, to which he gladly consented, being most anxious to obtain relief, at all hazards.

Assisted by my colleague Dr. David, I performed the following operation:—A semi-lunar incision was commenced at the point of the coracoid process and carried downwards and outwards towards the root of the acromion, extending downwards to near the insertion of the deltoid, and so directed, as to take the flap more from the back part of the joint than the front.

The knife cut through a hard brawny substance, of a whitish color, and scarcely vascular, and as soon as the incision was made, the flap retracted, as if it were composed of india rubber tightly stretched over the joint, and a deep narrow cavity was exposed, the walls of which were composed of eroded bone. There was no trace of the capsular ligament, nor of the tendons of the scapular muscles, nor of the long or short head of the biceps. It was soon ascertained that the boundaries of this bony chasm were formed by the end of the shaft of the humerus (for no portion of its anatomical neck remained) and by the neck of the scapula, the under surface of the acromion and coracoid processes. The surfaces of these bones were covered with sharp and hard spiculæ and processes which were interlocked with one another, so as to make it impossible to move the humerus without moving the scapula also. The space between the humerus and the remains of the glenoid cavity barely admitted the introduction of the index finger. All efforts to "turn out" the end of the humerus proved ineffectual; its surgical neck seemed bound by the condensed structure of the axilla to the thorax, and could not be separated from it, and no space could be procured, wherein to work the smallest saw. Under these circumstances the plan of operation was at once changed. An incision was carried from the one already made downwards, on the external surface of the humerus for the distance of three inches, and the soft parts being carefully dissected from the bone, I was able to remove, by means of a cutting forceps about two inches and a half of the diseased extremity of the bone, together with the neck of the