

Original Communications.

Comminuted Fracture of left Elbow, previously Anchylosed, resulting in Gangrene of Arm. Amputation. Recovery. By A. ANSELL, M.D., of Falmouth, Jamaica.

Francisco Aguilero, a Mexican, laborer, ætatis 48, of intemperate habits, slender stature, previous health good, was admitted to surgical ward of St. Mary's Hospital, San Antonio, Texas, on the 17th September, 1873, under charge of surgeon A. Ansell. On admission his condition was as follows: Left arm exceedingly tumefied from elbow to shoulder, of a dark brown hue, *vesicated* throughout its entire extent, tense, hot and painful; countenance anxious, desirous of having "something done for him," tongue coated, bowels constipated, urine scanty, high colored; pulse, 120; thermometer, 101 F.; respirations, 30. Gave the following

HISTORY.

About seventeen days ago was thrown from off the top of a load of wood (which he was conveying in a cart) to the ground, and fell striking full upon his elbow; the joint had been fractured thirteen years before, from a similar cause; he had had no medical attention, being poor, could not afford to send for a doctor, but had had the limb adjusted to a board, and had applied lead water, fever having supervened, and the pain in the limb becoming so intense he determined to seek medical aid. Coming to town he was admitted as an inmate to the pauper hospital. He judges the height from which he fell to be from ten to twelve feet.

In consultation with George Cuppels, Esq., M.D., M.R.C.S.E., it was decided, in view of the gangrenous condition of the limb, and the rapid the disease was making on the patient's constitution, to amputate at the shoulder joint, without delay. The necessary means being in readiness, I proceeded to disarticulate by the method of Baron Larny, by making a straight incision from the acromion process down to insertion of deltoid, then two other incisions, either at right angles from the first: then opening up the capsule of the joint, released the head of the humerus from the glenoid cavity of the scapula; next passing a catline behind the humerus, severed the soft parts, at same time seizing the flap in such a manner as to control the axillary artery, which was soon ligated, as well as two smaller vessels, a smaller branch or so were twisted. In consequence of an insufficiency of assistance, there

was no possibility of controlling the subclavian artery, the result was, there was considerable hæmorrhage. The anæsthetic used was "Squibb's" chloroform. At the completion of the operation, but prior to applying the sutures, it was discovered the patient was narcotized, but a powerful galvanic battery being at hand, it was applied, and with the usual proceeding in such cases the man was restored in about an hour, though reaction was slow. Patient was removed to his bed, where hot bricks and bottles of hot water were applied, and half an ounce of brandy with egg administered every half hour for nine hours; the patient remained with a pulse hardly perceptible, with respiration slow, accompanied with sighing, but by assiduously keeping up stimulation and ammonia, at the end of the period just named, reaction was fully established. 18th.—Flap united by eight silver wire sutures, and wound dressed with carbolic oil (1 to 40) applied on cotton batting. 19th.—Patient arose from his bed, feeling well enough and strong enough to occupy a chair outside the ward, and only occupied the bed to sleep in at night. The case progresses favorably, the ligatures being thrown off about the 18th day; three-fourths of the wound united by primary intention firmly by the fifth day after the operation, and the man was discharged well on the 23rd day, or October 10th.

The specimen preserved of this case, contains much instruction; first, it should be remarked, that a dissection of the limb after amputation revealed an amount of disorganization showing that another line of treatment, tending in a conservative direction, would undoubtedly have ended in the death of the patient; the soft parts were infiltrated throughout the entire length of arm and forearm, the flaps even were of dubious appearance, but chloride of zinc and alcohol, and the carbolic dressing restored them to a healthy condition; pus was seen throughout the limb at various points, even in the vessels. The bones accompanying this history bears evidence of an extensive fracture having taken place many years previously (patient states 13); they evidence the absorption and obliteration of the condyles of the humerus, the round head of the radius, the olecranon process, and part of the ulna, while a solidification of the entire articular surface shows how extensive must have been the previous injury. The subsequent injury was none the less extensive, the loss of bone substance shows that the fracture was comminuted, while by a survey part of the bone is seen to have been driven into the cancellus