

dislocations should be reduced; the end of the bone sawed off, if it render reduction difficult. The evils to be dreaded are the consequences of inflammatory action generally; nothing is said of particular compound dislocation.

Fergusson recommends in the less severe cases "to try the chance of saving the limb, without or with excision," etc.

Gross recommends amputation, "*if the joint be extensively opened, the muscles torn and the bones seriously involved*;" to avoid the danger from protracted suppuration and ulceration; under more favorable auspices, excision of the ends of the injured bones.

Samuel Cooper reprobates the practice of resection, recommends amputation when unavoidable, but urges reduction and conservatism, and speaks only of the dangers of suppurative inflammation.

Eriksen alludes only to the perils from destructive inflammatory action, and advises in compound dislocations of the upper extremity when the injury is not very extensive, replacement of the bone followed by cold irrigation and antiphlogistic treatment.

R. M., aged 13 years, fell from a tree, a distance of a few feet, and in the act of falling, a heavy bench struck him upon the right arm. No more circumstantial or distinct account of the accident can be elicited. After the fall he walked a distance of about four hundred yards. Upon examination the lower end of humerus was discovered thrust through an oblique laceration upon the inner surface of the elbow-joint to the extent of more than two inches: the olecranon could be felt posteriorly, the head of the radius outwards. It was evident that all the ligaments having attachments to the condyles were ruptured, as well as the tendon of the biceps and the fibres of the brachialis anticus; it was also probable that the median nerve had been injured. Amputation appeared to be the only resource, and I before expressed my apprehensions to the boy's sisters that lock-jaw was to be expected without the adoption of that measure; but as both parents were far from home, and a certainty was expressed by the other members of the family that the operation would not be permitted, or any operative proceeding, I was obliged to entertain the alternative of replacing the bone; this was effected through the narrow opening in the integuments by the leverage of the handle of a silver spoon, with extension of the forearm semi-flexed, through the assistance of my brother, Dr. F. L. Mack. The wound having been united

by silver sutures, the arm was carefully and loosely secured to an angular splint, and carbolic acid dressing applied with lint covered with tin-foil.

At 9 P. M. 10th October, a few hours after the injury, the boy appeared easy, and he was ordered one-eighth of a grain of morphine, combined with twice as much tartar emetic, every four hours.

11th. 9 A. M. The little patient slept about three hours during the night, occasional spasmodic action in the wounded limb, not much pain, the intervals between the doses of medicine to be reduced to two hours. Bowels acted at noon, spasms abated in frequency towards night, but were attended with more pain, feverish, joint much swollen, complains of pain in back of neck.

12th. 9 A. M. Slept well most of the night, spasms relieved, removed splint, arm much swollen: it was laid upon a cushion; slight suppuration at the lower end of the laceration. Mother arrived to-day. Dressing as before: omit morph. and ant., beef-tea and wine; scidlitz to move the bowels, at 6 P. M.

13th. Rested well, no spasms, bowels not opened, a cathartic of hyd. chlor. rhei and bicarb. soda was administered.

14th. Passed a restless night, pulse 120, tense febrile symptoms increasing, bowels not opened. At 2 P. M. bowels acted freely, after enema of ol. ricini and terebinth, beef-tea and wine, etc., given freely. 7 P. M. very restless, suppuration increasing, spasmodic contractions of the extremity have returned, slight stiffness complained of in the lower jaw. Indian hemp was freely exhibited all night, and frictions of chloroform liniment used along the spine. Dr. E. Goodman in consultation.

15th. All the symptoms much aggravated, stiffness of back of neck and inability to open the mouth; the friends having been urged to allow amputation of the arm, the father was telegraphed to for permission. At 1 P. M., assisted by Drs. Goodman, Comfort, Oille, Sullivan and F. L. Mack, amputation at the lower third of the arm by a double flap was performed under perfect anaesthesia, the wound was secured by silver sutures, and a solution of sulphate of morphia applied on lint. Chapman's spinal ice-bag was kept applied. Answer to telegraph was received urging a delay of operation, unless gangrene had commenced.

For a few hours after the operation a slight amelioration of the symptoms took place, but severe opisthotonos soon supervened, the cannabis was given every half hour until unmistakable physiological effects were produced, and chloroform was freely inhaled according as the severity of the spasms demanded. At 1 P. M.