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A CASE OF OLD DISLOCATION OF THE SEMILUNAR BONE TREATED BY OPEN OPERATION.

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The patient, a female, aged 32, was injured in a riding accident on October 30, 1937. She was thrown from her horse, and fell on the dorsum of the right hand and forearm.

I saw her for the first time on December 6. Her wrist was then very swollen, all movements being limited and painful. Radiographs showed an anterior dislocation of the semilunar bone with rotation. On December 9 an attempt was made by manual traction under an anaesthetic to effect reduction. The method described by Böhler [1] was adopted, and strong traction in the long axis of the limb was made continuously for twenty minutes. The dislocation persisted, and a radiograph showed no change in the position of the bone.

Arrangements were made for the admission of the patient to hospital for an open operation. On December 13 under ether anaesthesia an incision four inches long was made along the ulnar side of the flexor tendons with its centre over the wrist-joint. The flexor tendons with unopened sheaths were pulled laterally, the ulnar nerve was seen medially, and the carpus exposed. The dislocated semilunar bone lay anteriorly; the remaining carpal bones were closely approximated to one another and to the radius and ulna so that no space remained for the replacement of the dislocated bone. There was no scar tissue present, and the cartilage-covered surfaces of the bone appeared normal. A Steinman's pin was driven through the olecranon process, and a second through the base of the metacarpals, and the arm placed in the screw-traction apparatus. Traction was slowly applied, its effects being watched through the wound. The carpus gradually separated from the radius, a very powerful force being required, and a space for the semilunar bone reappeared. An attempt was then made to press the dislocated bone back into position, but it was impossible to move it. Gentle force with various levers was applied without success. Finally, it was discovered that pressure on the semilunar bone and simultaneous relaxation of the screw-traction resulted in its readily returning into its normal position, and there appeared to be no tendency for recurrence of the dislocation. The wrist-joint was put through its full movements, the wound closed
by skin sutures, and a plaster applied from the axilla to the bases of the fingers with the elbow flexed to a right angle, the forearm in the mid-position between pronation and supination, and the wrist in very slight dorsiflexion. The plaster was retained for one month. Recovery was slow, but gradually became almost complete. At the time of writing—August 15, 1938—there is a slight limitation of flexion and supination, but function is very good. Radiographs show slight arthritic changes with some rarefaction of the carpal bones, but these appearances are becoming less manifest.

The interesting features of the case were:

1. The considerable force required to separate the carpus from the radius so as to make room for the replacement of the displaced bone.

2. The absence of any scar tissue or changes in the bones and their articular cartilages.

3. The easy reduction of the dislocation by a combination of pressure over the bone and relaxation of the traction.

It appeared that it would have been possible to effect reduction of the
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Dislocation by the use of the screw-traction apparatus without making an open incision. In a similar case it would seem reasonable to fix the limb in the screw-traction apparatus, as described above; to apply traction with the limb under observation with the X-ray screen; and to attempt reduction by a combination of pressure over the semilunar bone and relaxation of the traction. Only in the event of failure of this method would it seem necessary to make an open incision.

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A CHEAP AUTOMATIC CONTINUOUS CHLORINATOR.

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A.—Requisites.

(1) Two petrol or crude oil drums of the same dimensions (ordinary 5-gallon drums).
(2) A few inches of glass tubing.
(3) A few inches of rubber tubing.
(4) A metal or wooden clip.
(5) A piece of flat cork (floater).
(6) A piece of tin sheeting (contact plate).
(7) A regulating stop-cock with fine adjustment.
(8) A few inches of stout galvanized wire.

B.—General Description.

(a) Method of Construction.

(1) Fix to the underside of a flat piece of cork (floater) a round piece of tin sheeting (contact plate) so that when the float is placed on the water the contact plate floats exactly on the surface level. Bore a hole through the centre of cork and plate and insert a piece of glass tubing which should stand vertically to a height of 3 inches above the top of the drum, while the lower end should be flush with the contact plate.

(2) Attach to the upper end of the glass tubing rubber tubing of a length equal to twice the height of the drum plus 4 inches.

(3) Bore a hole at the bottom of the second drum and solder the regulating stop-cock into the hole.

(4) Hang both the drums side by side by means of wire loops to the roof or to a hanger so that the top of the second drum is on a level with the bottom of the first drum.