syrup; albumen water consisting of the white of eight eggs in water.

This was continued for five days. The diet was then increased by the addition of more toast, butter, tapioca, potato juice, rice and macaroni.

DEPRESSED FRACTURE OF THE MALAR BONE. A SIMPLE METHOD OF REDUCTION.

BY E. A. CODMAN, M.D.,

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THE deformity due to depression of the malar bone is too well known to need description. Even when the tissues in the neighborhood are swollen and ecchymosed immediately after the trauma there is a decidedly flattened look on the affected side of the face and, when the swelling subsides, if reduction has not been accomplished, an unsightly one-sidedness remains for life. Even during the swollen period careful palpation of the lower rim of the orbit as compared to the sound side will show depression and often a decided rupture of the continuity of the orbital rim at the point of fracture. There is often anesthesia over the distribution of the infra-orbital nerve due to crushing of the latter between the fragments. The following is quoted from Keen's "Surgery" under the heading of "Treatment" for this lesion.

"It is almost impossible to correct the deformity without operative interference, owing to the inward displacement of the fragments in fractures of the body and arch, and of rotation of the bone in a separation at the sutures. There are three methods of operating: (a) A direct, i. e., an incision is made through the skin and the fragments pulled outward. This is objectionable on account of the scar and the inability to retain the fragment in place. (b) Through the mouth, by inserting blunt instruments beneath the bone from within and lifting the fragments up. By this method it is difficult to maintain the fragments in position until union has occurred. (c) The third method is that of Lothrop. He recommends making a small incision through the mucous membrane of the mouth, just over the canine fossa and through an opening in the anterior wall of the antrum to lift up the fragments, packing the antrum with gauze, which is not removed for four to five days. This would seem like an ideal method were it not for the danger of infection. This is avoided by frequent washings of the mouth with mild antiseptic solutions. The method has been employed by Lothrop in a number of cases and is well worthy of trial."

In three cases I have used the following simple method with complete success. I have firmly grasped the bone through the swollen tissues of the cheek with bullet forceps in the manner an iceman holds a cake of ice. The upper prong of the forceps is first inserted just back of the orbital rim and the lower through the cheek below the prominent part of the malar bone and a firm pull made on the scissor-like handles of the in-

strument. The bone comes up into place with surprising ease and tends to remain in position when once reduced. No dressing is necessary, as the two punctured wounds in the skin made by the points of the forceps are negligible. No scar is left. Only nitrous oxide anesthesia is needed. In fact, the operation could probably be done without an anesthetic with very little pain.

This simple method has been used, at my suggestion, by several of my colleagues at the Massachusetts General Hospital with satisfactory results. It seems to me better than the forms of operation recommended in the above quotation. In one case where the bone seemed badly crushed I used two pairs of bullet forceps at the same time. The same result could be accomplished with small tenaculi.

AVULSION OF THE PATELLAR TENDON WITH REPORT OF A CASE.*

BY D. PEARCE PENHALL, M.D., BOSTON.

RUPTURE or avulsion of tendons or ligaments in various parts of the body is of rather frequent occurrence, but it seems appropriate to speak of one of the more uncommon types of injury, namely, avulsion of the patellar tendon.

This tendon, situated as it is between the patella and the tibial tubercle, usually escapes injury from violent muscular contractions. The contraction, when violent enough, causes either a separation of some or of all of the fibers of the quadriceps tendon, or, as is more frequently the case, results in fracture of the patella. Occasionally, however, the force seems to act not so much on the quadriceps tendon or on the patella as upon the patellar tendon itself, and, owing apparently to some inherent weakness of the tendon, it causes either a complete or a partial separation of the fibers. The tendon may be torn from the lower border of the patella or may be ruptured just below. Occasionally, also, the tibial tubercle is torn loose from the tibia, but the tendon remains intact. The rupture may be regular or irregular and is usually transverse.

The following list, compiled from an investigation of the records of the Boston City Hospital from 1875-1906, may prove of interest as showing the relative frequency of occurrences of ruptures of the patellar tendon. There were in all 508 cases of injuries to structures about the knee joint, and these were divided as follows:

		Per cent.
Fracture of patella, simple,	385	75.78
Fracture of patella, compound,	16	3.11
External and internal lateral ligaments,	88	17.32
Rupture of quadriceps tendon,	16	3.11
Rupture of patellar tendon,	3	.59

None of the patellar tendons were operated upon, but were treated by immobilization. There was no subsequent note after discharge as to end results.

*Since this article was submitted for publication, a paper by Dr. F. C. Cotton has appeared which bears somewhat on the matter here discussed.