

evacuated into the anterior chamber with no greater risk of inflammation, than that which attends the presence in the anterior chamber of a few fragments of lens after an operation upon a soft cataract by laceration, and there is nothing to prevent the repetition of an operation in one more than in the other case, and certainly a similar prospect in both of the removal of the foreign material by the agency of the aqueous humor.

I would therefore suggest to any one who hereafter meets with this disease, to open freely through the cornea at the earliest possible period, the very thin membranous sac by means of a common cataract needle, or (which would, perhaps, facilitate a free incision of the sac with no greater loss of aqueous humor) with Langenbeck's needle.\*

If, from the first operation, no inflammation of the iris or globe follows, and the membranous cyst re-unites with a re-production of its contents; at the second operation, in making the incision into the tumor, the instrument might be rubbed against the inner surface of the cyst to such a degree as to produce adhesive inflammation within it, and still not compromise the integrity of the eye.

*Boston, April, 1855.*

## A NEW METHOD OF TREATING FRACTURED CLAVICLE.

BY SAMUEL CABOT, JR., M.D., BOSTON.

[Communicated for the Boston Medical and Surgical Journal.]

It is always difficult to get a good or tolerably smooth union of the clavicle, when completely broken across anywhere except at its acromial end; and as from its position, its appearance is of more importance, particularly to women, than that of most of the other bones of the body, I have thought that any practical hints which might lead to the prevention of the deformity resulting from an uneven union of this bone, would be acceptable to the profession. The muscles which act upon the broken clavicle, are the sterno-cleido mastoideus, which tends to pull the inner fragment upward, and which is antagonized by part of the pectoralis major. The trapezius, which tends to pull the outer fragment backward, and which is antagonized by part of the deltoid. And, lastly, the subclavius, which acts to pull the fragments over each other, shortening the bone.

The great difficulties in the treatment of this fracture, are to put and keep the bone extended so as not to allow the fragments to overlap and thus form an unsightly bunch; to keep them still and in apposition, so that the union may take place with the least possible callus; and, lastly, to accomplish these indications, so far as possible, without severe and long-continued suffering and subsequent partial paralysis of the limb. I shall not discuss the well-

\* Sharply curved and cutting on the convex edge for a line and a half from the point.

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known methods now in use, as all are familiar with their various advantages and disadvantages; my object being merely to lay before the profession a method which I have been in the habit of using for the past four or five years in all cases where fracture has taken place in any part except the acromial end, and which, I think, has decided advantages over any of the ordinary methods of which I have any experience. The subjoined cases were drawn up some years since for the Society of Medical Observation, and as they explain my method and show its operation, I will give them here, adding, however, that I find it well to place soap plaster, spread on soft leather, in the axilla to prevent chafing. Since these notes were taken, I have had other cases, but of which I have not preserved any notes; I would say, however, that so far as I recollect, they have been as favorable as those given. In one of them, the patient, a young man of 25 or 30, had had the same bone broken some years before, and treated with Velpeau's and Fox's apparatus. He found it much less painful treated by my method than it had been by the others; indeed, it was not at any time necessary to remove the apparatus on account of pain. He did not get a very smooth bone, however, partly owing to the previous fracture, and partly to an attack of delirium which prevented the apparatus from having a fair chance. I usually put on a Fox's apparatus beside the splint, but without a pad so thick as to make uncomfortable pressure on the axillary nerves.

M. L., æt. 9, was run over by a loaded wagon, June 30th, 1852; one of the by-standers saying, and his assertion was confirmed by others, that her head lay between the track of the wagon wheel and the curb-stone, and that the width of his shoe more than covered the space. It is also probable that she was crushed against the curb-stone, and that the wheel did not wholly pass over any part of her, as it seems hardly possible that she could have escaped with her life if it had. I saw her a few minutes after the accident. I found her lower jaw broken on both sides at about the first bicuspid on each side, her face bruised, and both clavicles broken, the left at about the middle, obliquely, the right transversely, or nearly so, near its scapular extremity. The fragments on the left side were shot over each other to a considerable extent; on the right they were but little displaced. I first brought the jaw into shape, and after moulding a piece of gutta percha upon it, applied the usual bandage outside of it, with a piece of cork fitted between the teeth over the fractured points on both sides. I then cut a piece of gutta percha long enough to extend from the middle of the sternum to the head of the humerus, and about two inches wide. The shoulders being held back with sufficient force to bring the fractured ends of left clavicle in apposition, I moulded the gutta percha (softened in hot water) to the surface, pressing it in round the clavicle, and retaining it so until it had become hard; I then put a piece of soft linen, folded twice, between the splint thus formed, and the skin, and with a long roller made a figure-of-eight

bandage, crossing on the back and passing round both shoulders—the fractured point on the right being protected by a compress, and that on the left by the gutta percha splint, then passing a few turns round in front, I formed a kind of pocket to retain the end of the splint, which rested on the sternum, by stitching in the bandage around it. Then placing a pad in the left axilla, I secured the arm in a sling much in the manner of Fox's apparatus. The child's mother being obliged to go out to work for a living, and to leave the child locked up with a younger brother in a room by themselves, with no one to look after them, very soon she was up and running about the room, and as a consequence the apparatus required frequent adjustment. But notwithstanding these unfavorable circumstances, the bones soon united, and on the 19th of July, twenty days from the accident, I was able to remove all apparatus. The left clavicle had united with very little callus, less indeed than that on the right side, where the bones were never displaced, to any extent, and was of about the same length. There was some unevenness of the teeth on one side.

Matthew F., æt. 13, November 12th, 1853, was run over by an omnibus, and brought, 15 minutes after, to the Hospital. Had the following injuries:—An oblique fracture of the left clavicle at about its middle, a point sticking up nearly at right angles to the direction of the bone, which point had pierced through the skin at about one and a half inch below the natural position of the clavicle; a fracture of inferior maxilla on right side, between the cuspid and bicuspid teeth. A silk ligature was passed round the two teeth, and a head bandage applied. Then a piece of gutta percha, reaching from the head of the humerus a little beyond the middle of the sternum, and about three inches wide, was moulded on over the fractured clavicle; after it had been drawn into place, by an assistant standing behind and forcibly pulling back the shoulders, one end resting against the projection of the head of the humerus and the other moulded to the chest, the portion corresponding to the mastoid muscle and neck being formed into an arch, in order not to interfere with the neck after it had become hard; a piece of cotton cloth folded and wet with cold water was placed between it and the skin; a figure-of-eight bandage was applied, as described in the previous case, and Fox's apparatus.

November 18th.—Apparatus removed. Fractured extremities of clavicle appear to be in good position. Bowels regular.

20th.—The silk ligature having slipped from the teeth, a fine piece of platina wire was passed round the two teeth on each side of the fractured part, by which the fractured extremities of maxilla are kept in position. May have broth.

28th.—Gutta percha splint and Fox's apparatus taken off. There is a firm union of bones, and no difference can be found in length of the clavicles.

December 2d.—Discharged well.

Mary Boston, daughter of an Indian father by a white woman, æt. 12, fell from a swing, November 16th, 1853. I saw her soon after, and found fracture of clavicle, rather to sternal side, of middle of the bone. The ends of the bone were not separated or overshot; in fact, I doubt whether the fibres of bone were all entirely broken off. The fracture was treated with gutta percha splint, &c., like those already described. The girl was very unruly and constantly displaced the apparatus. She got, however a good union, and left off apparatus in a fortnight from time of accident, having more deformity, however, than in either of the other cases. The length of bone not diminished. This case is not a fair one for testing the merits of the method, as there was no overshooting of the bones. I merely mention it, as more deformity resulted than in either of the other cases, though, treated by the old method, it would be considered much the easiest to treat, and would be expected to give much the best results.

April, 1855.

#### THE CONTAGIOUSNESS OF CHOLERA\*—A REVIEW.

[Communicated for the Boston Medical and Surgical Journal.]

THIS volume has been for several weeks upon our table, but our engagements have not hitherto allowed us to give it the attention the importance of its subject demands. The author's motto is an excellent one, and no better guide could be followed by writers upon any topic; but the axiom "that the promulgation of every truth is, in its general effect, beneficial, that of every error mischievous," is singularly applicable to medical communications—and never more so than when a grave question is to be determined, for whose solution the public look with justifiable anxiety to the medical profession. The contagiousness or otherwise of malignant cholera is a matter of the deepest interest to every community, and the efforts so perseveringly made to settle the question, definitely, are worthy of all praise.

Dr. Byrne founds his conclusions upon twenty-one facts which he decides to be of so "positive, undisputed and unequivocal character," that those who could not be convinced by them of the contagious nature of the disease, "would fail to be convinced by twenty-one thousand similar facts."—(*Preface*, p. xv.) We have read these facts carefully, and are very willing to allow that nearly all of them are quite decided evidence of the communicability of the disease under certain conditions; but even a much larger number of isolated instances, thus grouped, will not, by themselves alone, demonstrate that cholera is propagated solely by contagion, the point which it is Dr. Byrne's avowed purpose to "prove."

\* An Essay to prove the Contagious Character of Malignant Cholera; with brief instructions for its prevention and cure. By Bernard M. Byrne, M.D., U.S.A. Second edition, with additional notes by the author. Pp. 160. Philadelphia. Childs & Peterson. 1855.

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