into the orbital-plate of the temporal bone. I saw the man the next day, and received the above account from the surgeon, who told me, it required considerable force, and an enlargement of the wound, to extract the piece of iron; there was no exfoliation or appearance of bone, but trifling hæmorrhage, and the wound healed readily. The man (John Berge) died of cholera, at Quebec, in 1832; there was so much of distress and confusion at the time, that I was unable to examine the state of the part, which I had long the intention of doing—if afforded the opportunity. The piece of iron barrel was found to have been "torn" from the muzzle of one of the fire-locks, and is in my possession now.

Weight—5 drachms, or 300 grains.

Length—2 inches and 6-10ths of an inch.

Breadth at the broadest part—9-10ths of an inch.

NOTE.—When extracted from the orbit, the concave part lay uppermost, or, I presume, the protrusion of the eye must have been greater.

Esplanade, Quebec, Feb. 5, 1849.

ART. LXXXII.—CASE OF UN-UNITED FRACTURE OF THE HUMERUS, TREATED SUCCESSFULLY BY OPERATION.

By HAMNETT HILL, M. R. C. S. L., Bytown.

Alexander Lackie, æt. 16, of the Township of Mac-Nab, on the Madawaska River, met with the following injury on the 28th October, 1847:—He was engaged chopping, in company with two or three other young men, when by some misfortune he was struck by the limb of a falling tree on the right arm, which fractured the humerus about three or four inches above the elbow joint; the integuments were a good deal contused, but no laceration or wound took place. The nearest professional assistance was at a distance of eight miles from the residence of the patient, so that it was about six hours before the medical man arrived, who set the arm, putting it up in the usual way, with four splints, and supporting it with a sling; the arm was then allowed to remain without any further attendance on the part of the Surgeon for the space of five weeks, at the expiration of which time the splints were removed for the first time. After having been re-applied, and another five or six weeks having elapsed, the patient's mother took them off; and the discovery was then made that no union whatever had taken place, nor was there the slightest attempt to produce any. The Medical attendant was again sent for; friction was employed, and the limb again done up as before for three weeks; unfortunately, however, no improvement took place in this interval of time. A consultation was now held with another medical man, and friction was again employed for a short time, and subsequently it was resolved to insert a seton, which was kept open for the space of a fortnight without producing any inflammation or benefit whatever. From the appearance of the cicatrices in the skin it does not appear that the seton could have traversed between the bones, but would seem to have been inserted close to the upper extremity of the fracture, which was excessively oblique. From the period of insertion of the seton nothing whatever had been done until the latter end of October, 1848, when he was brought down to Bytown for the benefit of my opinion as to the case.

At that date the appearance of the arm was almost natural, with the exception of its having become much smaller than the left, from muscular wasting consequent on the entire want of use for the preceding twelve months. The outline indeed from the point of the acromion to the elbow was perfectly straight, whilst the limb was allowed to hang to the side, but immediately he was desired to make any effort to bend the arm or lift it, then the angular projections of the separated humerus were evident to the eye, and on examination it was found to possess all the liberty of motion of an enarthrodial articulation; in short, what is commonly called a false joint had been formed. The original course of the fracture was easily discernable, and found to have extended from nearly the middle of the humerus on its anterior surface, proceeding downwards and backwards at about an angle of twenty degrees or so, with the axis of the bone. The ends of the separated portion seemed somewhat rounded and smooth, but their middle parts seemed to be connected in some way or other by a kind of semi-cartilaginous or ligamentous growth; nothing, however, like callus had been deposited, and the edges of the bones appeared as perfectly defined as if they had been but recently separated by the saw. In examining the limb even roughly, no pain whatever was excited, but it was perfectly useless, and had of course been so since the receipt of the injury.

As to the cause of the want of union, I will not pretend to say whether it could be attributed to the bandages and other apparatus not remaining so well applied as to retain the fractured bones in apposition and free from motion, or whether the evil was in the "vis medicatrix," and indisposition in constitution to deposit callus or earthy matter, although from the young man's present appearance one would pronounce him to be a favorable subject for union to progress with ordinary rapidity under the usual circumstance; at all events, I was not called upon to decide this point, but as to whether any thing could now be done to effect union.

After having consulted with Dr. A. Morson, and Dr. Laing, Assistant Staff Surgeon, it was our unanimous opinion that it was a favorable case for cutting down on the fracture and giving two new surfaces to the bone; accordingly, on the 1st of last Nov., I performed the following operation in company with those gentlemen. Being extremely anxious to submit to any treatment that would afford him the probability of regaining the use of his arm, he was as firm as a rock in submitting himself to our hands, either with or without the use of chloroform; but as there existed no reason for not putting him under its influence, we availed ourselves of its agency; the effect was almost instantaneous.

Having previously placed him on a chair in the upright position, the operation was commenced by making an incision of about four and a half inches long in the axis of the arm, beginning just below the insertion of the deltoid muscle on the outside of the arm, and con-