

September, 1893, he lost a month's time, owing to pain in the fractured patella, from an effort made in getting into a tram-car. A similar accident and loss of time occurred in the following November. The patient being only thirty-four years' old, of good constitution, free from rheumatism, and obliged to support himself by hard labor, I advised him to submit to an operation in order to secure bony union of the twice fractured patella. Dr. L. McFarlane, of Toronto, concurred in this opinion, and subsequently assisted me at the operation. The patient was then sent to the Toronto General Hospital and remained in bed for a few days while the seat of the operation was thoroughly cleansed with anti-septics.

December 1, 1894. Chloroform having been given, a free transverse incision was made across the centre of the right patella, down to the bone. I found the upper and the lower pieces of the injured bone united by a firm cartilaginous plate, about a quarter of an inch in thickness. This plate was so firm in structure that it was necessary to use a finger-saw in dividing it. The plate was completely removed, exposing a fresh surface of bone in each fragment of the patella. Strange to say, instead of finding the open knee-joint behind the patella, there was a kind of thickened capsule, which covered the front of the knee-joint. In liberating the fragments, this capsule was opened at one spot, so that the interior of the joint was exposed. It was also necessary to remove some cartilaginous tissue from the sides of the fragments, so as to bring the edges of the bone together. Two holes, parallel to each other, were then drilled with a small hand drill in each piece of the patella, extending from the anterior to the posterior surface of each fragment. Heavy silver wire sutures were then passed through from the upper to the lower fragment, twisted, and nailed flat to the anterior surface of the bone, the ends of each strand being buried where the fresh surfaces of bone came together. The external wound was sutured with silk, no drains being used. The wound was dusted with iodoform, covered with antiseptic gauze, bandaged and attached to a well-padded posterior splint.



would enable a surgeon to rapidly pass a ligature about a bleeding tonsillar artery, which might have been wounded in tonsillotomy.

Either of these needles will be found useful in drawing or withdrawing sutures, which may be required to steady fragments of bone in fractures of the maxilla, etc. A flexible aluminium needle, armed with a steel tip,