

## Original Communications.

*Oblique Fracture of the Thigh treated by Extension.* By JOHN BELL, M.A., M.D., Physician to the Montreal Dispensary and to the Infants' Home.

On May 18th last, David N., aged 30, while working on a roof, slipped and slid down to the eave, which he caught with his hands and remained hanging for some minutes. Underneath was a platform of planks, one of which was missing immediately below him, and on letting go his hold, he fell with his legs rigid, one going through the hole, and the other (the left) foot, striking the platform, sustained the whole momentum of the body, causing the left femur to be fractured between the middle and upper thirds of that bone. He was conveyed home in a carriage and suffered excruciating pain in the transfer. I was called to see him only after several hours had elapsed, and found him lying on the floor, with the thigh bent outwards, and the muscles swelled out into hard lumps from the spasm. He lay in a semi-conscious state, yet suffered such agony when any examination was attempted that it was necessary to give chloroform, which was done by the assistance of Mr. C. Fenwick. Audible crepitus was at once obtained, and the lower part of the femur, extended, could be moved in any direction. I now rolled a long piece of canvas around both legs and the body, and had him removed to the only bed available, and which had been previously prepared; a woollen "cloud" was fastened in a "clove hitch" around the ankle, passed through the end of the bed, and two smoothing irons attached to the dependent end. The legs were now equal in length and similar in position, and movement was prevented by the canvas binder. On recovering from the chloroform he remarked the very great relief and freedom from pain he experienced.

May 19th.—Had a comfortable night; no pain; lying easy.

May 20th.—Rested comfortably and had no pain. The canvas roller removed.

May 21st.—He had pain in the leg last night; none now.

May 22nd.—The "cloud" removed, and extension made from strips of plaster along the leg, kept applied by bandage. The lower legs of the bed to be raised.

May 25th.—Swelling of the thigh gone. Long narrow sand-bags to be used to steady the leg and keep it from rolling round. His bed being a little

too short there is sometimes  $\frac{1}{2}$  inch to  $\frac{3}{4}$  inch shortening, which is pulled out when the body is drawn up in the bed. No pain.

May 26th.—Eating lightly; bowels keep regular.

May 28th.—Had bed arranged so as to have leg extended to full length; knee-joint somewhat swollen out with fluid, probably from injury from concussion and strain. Callus beginning to form.

June 18th.—Nothing of note from last date; applied glue bandage to leg, thigh and pelvis, with thick pasteboard splints around the site of the fracture, which has now quite united.

June 20th.—Walking about the house and yard with crutches and glad to get lying outside in the fresh air.

June 22nd.—Applied additional short wooden splints to the outside and inside of the thigh for further security against bending of the femur.

July 3rd.—Moves his leg with freedom; still sore if rested on.

July 15th.—Splints only on the thigh; is able to walk alone.

Aug. 4th.—Eleven weeks from the date of the fracture the patient was examined by the members of the Medico-Chirurgical Society at their meeting of this date, and only one-half inch of shortening was found. Subsequently the patient has done well.

On extending the injured limb to its full length the fractured ends of the bone naturally came into apposition, being guided to and retained in their place by the surrounding tissues. The relief to the pain was most marked and gratifying. The limb easily retained its proper form, for, being movable at the hip and kept constantly extended to its normal length between the hip-joint and point of attachment of the weight, the parts naturally assumed their true positions even if the patient moved the rest of the body. It seemed to me from careful measurement, after the first irritation had subsided and the callus began to form, that the femur was drawn out to its full length. After, however, the glue bandage had been applied and he began to walk about, a certain amount of shortening took place; this might have been even less than it was, had he been kept on his back with extension applied until the bond of union had become more consolidated. After the glue bandage had been removed a considerable amount of thickening was found in the region of the lesser trochanter, evidently from some splintering of the bone having occurred at the time of the accident.

1 Belmont Street, Montreal, Oct. 16, 1877.