

had never had any serious illness, and his family history was very good. I wish to call your attention to the pain on motion and at night, his inability to move it, and the œdema as pointing to caries.

I made an incision on the external, lower aspect of the thigh; found the upper fragment pointed, denuded and carious. The lower fragment was surrounded by a firm mass of fibrous tissue. I resected in all two inches of bone, brought the sawn ends together with two silver sutures, and an ivory peg, which was passed obliquely. The wound in the flesh was closed, and a dressing of sublimated gauze applied, which was not changed for twenty-one days. The splint used in this case was a bar of iron a quarter of an inch thick, three quarters of an inch wide, and long enough to extend from the sole of the foot (a foot-piece attached) along the posterior surface of limb, passing between the tuber ischium and trochanter major to the small of the back. This was the first time I used the iron bar as recommended by Professor Alex. Ogsten, of Aberdeen, but it fulfilled all the indications admirably, keeping fracture and joints at perfect rest, with the knee slightly bent. I did not forget to move the joints and put them in a different position to that in which they were found.

Healing by first intention of the soft parts, and firm bony union occurred. I have heard from him several times since, and he is working at his trade without inconvenience or hindrance. The knee has not its full bending power, but it is far from being ankylosed, although it was stationary in the one position for five months before I saw him, and in the altered position for nearly three months afterwards. I believe if the same position had been maintained that ankylosis would have resulted.

Case 2.—Fibrous union of tibia and fibula, following compound fracture, on which three operations had been performed without success. Resection and nailing. Recovery in eight weeks. Miss L., aged 26 years, came from British Columbia with the following history:

On the 9th of February, 1891, in company with three others, she was on a toboggan sliding down the banks of the Columbia River, at Donald, B.C. While going at full speed down several hundred feet, and with force sufficient to climb the oppo-

site bank, about mid-way another toboggan, loaded with three men, and rushing with equal speed and force, coming from the opposite bank, was encountered. The collision was simply fearful. The heel of one of the men struck Miss L. on the forehead, crushing in the left frontal, which is still depressed, and breaking his leg above the ankle. She sustained several other injuries. Three ribs on the left side; the left fibula and the right tibia were fractured, the latter being compound. Her life was despaired of, but gradually she recovered, with the exception of the right tibia, which had not united. On the 1st of November, 1891, over eight months after the accident, she went to New Westminster, B.C., and entered an hospital for treatment. On the 9th of November, the first operation was performed for fibrous union, but in six weeks no repair occurred. On the 23rd of December, 1891, resection of the tibia was made and the bones wired together, but without success. On the 4th of February, 1892, a third operation was performed, resecting a portion of both the tibia and fibula, but it, too, was not a success. On the 14th of May last amputation was advised, to which she would not consent, but the same day she left the hospital.

Judging from what Miss L. tells me, suppuration took place in all the operations. It was still septic when I first saw it.

On the 28th of last June, assisted by Drs. Todd, McArthur and Hutton, I operated on her, and removed the sections of bone which I now show you. The large circular one, three-eighths of an inch long, is from the tibia, and the smaller one, half an inch, is from the fibula, which was longer, and curved the leg inwards. In both of these you can see the fibrous tissue extending between the fragments.

I wish to call your special attention to the instrument I hold in my hand, and with which I removed the sections. It is known as Wyeth's modification of Gowan's exsector. Without it such an operation entails much labour and laceration of tissues with saws, chisels and hammer; but with it you simply grasp the bone subperiosteally, and saw it through in this manner with the upright saw. It is simplicity itself, and nothing could be more efficient or less disturbing. I may have an opportunity of using it to-day.