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THE INDICATIONS AND TREATMENT OF SPECIAL FRACTURES.

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The fractures selected for consideration in this memoir are: Fracture of the Sternum, in reference to the indications; and Fracture of the Leg, in reference to the treatment of special fractures.

The American editor of Druitt's treatise on surgery remarks: "The existence of a persistent local pain in a circumscribed point, when the finger is pressed on the bone, is a very valuable symptom of fracture." In some fractures, as of the thigh and arm bones, deformity, mobility, and crepitus are easily noticed, and there is no doubt as to the nature of the mischief that has happened. The anatomical relations of other bones are, however, peculiar, in consequence of their functional adaptation, and other symptoms become prominent and specialize the damage that has been done by violence. Of the accuracy of this statement the sternum offers a good example, as is shown in the following narrative: A Scotch gentleman, member of a learned profession, in the prime of life, resident in Ontario, was logging with a teamster and yoke of cattle, and a man to roll the logs, on the 16th July, 1869. The logging chain was attached to a loose hemlock stump, to have it extracted, and, while the rollers were throwing up a small log on the heap close by, the oxen pulled out the stump; but, unfortunately, a birch log, nine inches in diameter and over twelve feet long, resting on the stump roots, and not considered a source of danger, was started by the shock, rolled up the gentleman's back, and, resting on his right shoulder and same side of the neck, threw him on the log-heap, his breast bone striking on the log beneath; thus furnishing a sufficient cause to produce fracture of the sternum.

It is obvious there were two parallel planes in close proximity: the gentleman's back and the birch log in its sweep. A blow on the back would have broken the spinal column. The escape is marvellous enough, without adding the impossible to make it ludicrous. The shock instantly caused a feeling of oppression and sinking in the region of the heart, the influence being felt on the cardiac nerves. These unpleasant results disappeared on the removal of the log; so much so, that the gentleman promptly moved to go on with the logging, as he was not hurt. But on raising a light log, he found himself lamed in the sternal region at the second rib. He was unable to continue work, and remained incapable of anything but light exertion during two weeks, suffering constantly from severe pain in the sternum at the second rib, increased by pressure and movement, as in lying down, rising up, turning to either side, coughing, by any effort of the hand, as throwing and chopping; he could only chop with the weight of the axe, without using any force. There was general soreness of the back, from the small of the back to the shoulder and neck. In the course of the third week his strength was considerably re-established.

It is evident that the upper part of the sternum was fractured from the lower portion, but that displacement was prevented by the conformation and surrounding attachments of the bone, the indications of the lesion being constant acute local pain (increased by touch) and functional derangement. Coughing caused unbearable sternal pain, extending to the heart. Support, by firm, light and equal pressure, alleviated the pain, thereby indicating the proper line of treatment.

However desirable it is to have the best contrivances, in the form of instruments, for the treatment of fractures, it is not always possible to have them on hand; and if they cannot be