

IRWIN. (J. D.)

FRACTURE OF THE STERNUM,

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**FRACTURE OF THE STERNUM, WITH DISLOCA-
TION OF THE FRAGMENTS: TREATMENT
AND RESULT.**

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Two cases of fracture of the sternum having been recently reported in the *Boston Medical and Surgical Journal*, vol. cxviii. pp. 368, 369, the writer is induced to place on record, from notes taken at the date of the occurrence, another instance of this rare form of injury.

While on duty at the United States Military Academy, in the summer of 1876, I was called in consultation by Dr. J. B. Monroe, of Highland Falls, near West Point, New York, to see John Turner, a healthy, robust American, aged twenty-six years, who, while seated on top of an omnibus, was dragged by his unruly team through a low doorway of a carriage-house, his body being caught between the lintel and the driver's seat, and crushed violently backward and downward against the roof of the vehicle. As he was hurried forward toward the entrance he endeavored to escape the danger from



above by stooping and leaning forward, but his body was caught by the lintel and violently crushed backward, his dorsal spine being pressed against the projecting comb of the seat, formed on the roof of the omnibus. At the same time the compression of the thorax fractured the sternum at the junction of the manubrium with the gladiolus, the lower end of the former being driven inward, while the upper extremity of the latter bone was pushed outward and upward upon the manubrium.

Attempts to return the fragments to their normal position having proved unsuccessful, a broad bandage had been applied for the purpose of lessening the intense pain caused by thoracic respiration.

Examination of the injured parts disclosed marked projection of the spinal column between the second and sixth dorsal vertebræ, but, although the appearance of the parts indicated fractured bone, careful manipulation failed to disclose crepitus.

Efforts were at once made to replace the fragments of the broken sternum, but, although they could be reduced to position by pressing the overlapping, projecting end of the gladiolus downward, it would slip out and upward on withdrawal of the direct pressure.

To overcome that tendency, a large, hard pad, covered with soft material, was placed between the scapulæ. While the patient inspired deeply and the head and shoulders were extended well back, the displaced fragments were returned and retained in their normal position by a suitable splint applied over the pad and across the spine; the expanded condition of the thorax being maintained by aid of a figure-eight bandage, which bound the shoulders back to the projecting ends of the transverse splint.

To allay pain, which was very severe during the

two or three days following the reception of the injury, morphine and potassium bromide were administered from time to time, as occasion required.

The apparatus was worn without change for three weeks. Its use secured perfect reunion of the broken bone and complete restoration of the sternum to its natural condition.

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