

many diseases of joints may be said to terminate when anchylosis occurs." "The true form is not to be broken up either by gentle or violent means."†

Such opinions I might cite almost *ad libitum*, but sufficient has been said to show the estimation in which surgical interference is held.

For the relief of complete anchyloses, three modes have been proposed—1st, By cutting out a wedge-shaped piece of bone; 2nd, the establishment of a false joint, by laying bare the bone, sawing it in such a way as to interrupt its continuity; 3rd, the violent and sudden rupture of the anchylosis.

The first proposed by J. Rea Barton, Surgeon to the Pennsylvania Hospital, has been practised by him with success, also by Gibson of Philadelphia, but has not become general. The second is advocated by Velpeau. It was first performed by Barton, and afterwards by Rodgers of New York.‡ The third, although practised by the older surgeons, is opposed by Velpeau, and justly, too; for a more diabolical method for torturing a fellow-being, was perhaps never invented by the most fertile genius of a surgeon. An apparatus for this purpose was invented by M. Louvrier, called "infernal machine"—appropriate term—upon which, or rather *into* which the limb was fastened, and by a sudden turn of a winch, to which ropes leading from this machine were attached, the limb was straitened instantaneously with one or two distinct cracks. "A few escaped with comparative impunity, yet with little improvement in the part; in others, laceration, suppuration, gangrene, delirium, and death were the results.¶ Louvrier's method is now never employed, and writers on surgery only mention this mode of treatment in order to caution the reckless against adopting it. Even the two former meet with very few advocates.

The practice so successful under Langenbeck, and which has given rise to those remarks, consists in breaking up the callus, but in a manner very different from that of Louvrier. Langenbeck's predecessor in the university and hospital, Dieffenbach, long ago recommended *tenotomy* as a preliminary measure to the restoration of an anchylosed limb;§ but since the introduction of chloroform, there exists no necessity for the use of the knife. The patient should be placed in a recumbent posture, and chloroform administered until *complete* anaesthesia is induced; until, in fact, *the muscles cease to offer any resistance*. The most favorable joint for the operation, and that on which I have seen it performed most frequently, is the knee. An assistant or assistants fix the pelvis, and the surgeon commences gradual flexion, if the limb be extended, or extension

\* Cooper. † Miller. ‡ South's Chelina. § Brit. & For. Quart. Review,

¶ Dieffenbach. Ueber die Durchschneidung der Sehnen und Muskeln, p. 249,