

The wrench is made of round bar steel about 5-8 of an inch in diameter. The shape is sufficiently indicated by the accompanying sketch (Fig. 1). The reverse extremity of the wrench is expanded into a bow shape, so that in operating, for example, on an adult club-foot, the foot may be passed through this end and the wrench then slid into position. The apparatus is equipped with two movable bars, one (*b*) upon the upright limbs of the wrench, the other (*c*) upon the horizontal limbs. The bar (*b*), as shown in the figure, is bent towards the bow end of the wrench to the extent of about an inch and a half, and is provided with two thumb-screws which fit into small depressions on the upright limbs, so that it can be set accurately in any desired position. The bar (*c*) is attached by a close-fitting collar to one limb only

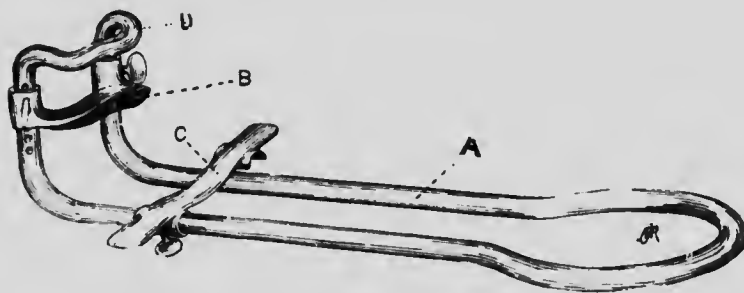


FIG. 1.—*A* the horizontal limbs expanded into a bow. *B* the bar on the vertical limbs provided with set screws. The bar *C* on the horizontal limbs is shown partly lifted. *D* joins the two limbs so as to prevent the collars from "binding."

of the horizontal portion of the wrench, the other end of the bar having merely a concave groove which fits upon the opposite limb. This bar is, of course, also provided with a set-screw. By this means the bar can be opened out completely, so as to allow the wrench to be slid over the foot up to any desired position between *b* and *c*. The bar (*c*) is made slightly concavo-convex on its upper surface, so as to fit the limb, while bar (*b*) is also concavo-convex on its under surface for the same purpose. It will be observed that the bowing of bar (*b*) towards the body of the wrench allows the two bars (*b*) and (*c*) to be practically placed one under the other when in position on the foot, and thus the fullest possible extent of short leverage is permitted. In my first wrench the vertical limbs terminated by free ends above the bar (*b*), as in