2 tons. The shoe must move 12 feet, hence the wooden block \(12 \times 12 = 144\) feet, and the manila rope \(144 \times 8 = 1152\) feet.

The operation commences in pulling the shoe \(\frac{3}{16}\) of an inch back from its seat on the leg, and to raise it above the latter in order to get it free. As the strand itself pulls upward, this rise of the shoe requires no extra force. The arrows in the diagram (Fig. 34) show the direction in which the different ropes move during the first operation. As soon as the shoe is free, and the motion of the engine reversed, it slowly travels forward until it reaches the eyes of the anchor links, through which a short pin is driven for the shoe to rest against. After having the shoe secured in this way, the tension in all the ropes is slackened, but the whole letting off apparatus is left intact, because it is needed again for regulating the strand.

Lowering the Strand in the Saddle.—This operation is illustrated in Figs. 39 and 40.