

of the anchorage for letting off any strand of the four cables, this middle part being the only one free from obstructions; second, the length of the anchorage not being sufficient for moving the shoe in one process the entire distance, it is necessary to do it in two processes, viz., to arrest the motion as soon as the wooden block arrives at the rear end, to take the fall rope from the intermediate sheave *D*, and to place it from *C* directly over *E*, occupying in Fig. 34 the position of the dotted line. With this the double distance *D E*, is gained in the length of the fall rope, and the wooden block can be placed again so much back, to continue the operation. An arrest of the motion and a relieve of strain in the fall rope, can easily be procured, by lashing the twelve ropes, between standing and running block, tightly together. The tension in the strand is 75 tons, that of the fall rope, consequently  $7\frac{5}{8} = 6\frac{1}{4}$  tons + friction, equal together to about 8 tons, and that of the manila rope  $\frac{6\frac{1}{4}}{8} = \frac{3}{4}$  tons + friction, or about  $1\frac{1}{2}$  to