much time and are too valuable to admit so large an average of losses.

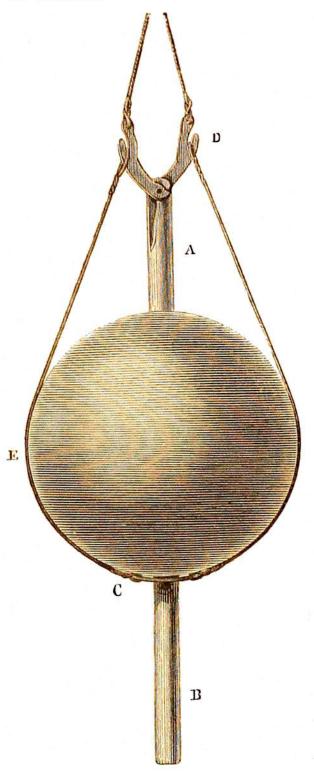


Fig. 38.—Brooke's Deep-Sea Sounding Apparatus.

About the year 1854, J. M. Brooke, passed-mid-shipman in the U.S. navy, a clever young officer who