crest of a wave in travelling from stem to stern: one, two, three, four, five, *six*. Now he calculates the time between the moment when one crest strikes the stem of the vessel and the next touches it: result, sixteen seconds and a fraction. Thus he obtains at once the width between crest and crest; for as the crest travels two hundred and twenty feet (= length of vessel) in six seconds, and as sixteen seconds elapse before the next crest touches the stem, any schoolboy will see that the actual length of the wave must be nearly three times that of the ship, or, in plain figures, 605 feet from crest to crest.

But then it falls to be considered that the oblique course of the ship necessarily lengthens her line over the waves; thus:—

The professor estimates the elongation at forty-six feet; deduct this from six hundred and five, and you have *five hundred and fifty-nine* feet as the probable average distance between crest and crest.