Another report from a locality not far from the above is the following: "On January 28, 1883, in N. Lat. i° 38',W. Long. 27° 40', in clear weather and a light sea, suddenly we heard, about 7.47 P.M., a strange submarine noise not unlike distant thunder or still more like the distant firingof heavy guns.

At the same time there was a vibration of the ship as though the anchor had been let go, or as if one were standing on the after-deck of a screw steamer. The entire phenomenon lasted about a minute. A peculiar sensation came upon everybody as if electrified. The crew thought there must be a large stick of timber rubbing alongside. The lookout thought that the ship had struck bottom."

The foregoing are representative of the large majority of the reports of seaquakes. The ship quivers, vibrates ; loose objects chatter and tremble. There is a strange noise in the sea like distant thunder or distant artillery. The first im- pression is as if the ship were grinding upon the bottom, and there is an instinctive rush of the crew to the deck and the bulwarks to see if the ship is not aground or on a reef. But the situation is soon recognised. The ship is seen to move steadilyonward with unchecked speed, she rises and falls to the swell of the sea without shock, the water is dark and fathomless. The tremor soon passes and the nature of the phenomenon is at length apparent.

Although the trembling of the ship and the strange roar from the sea are the most common and exclusive indications of the seaquake, there occur more forcible indications in a few instances. As might be expected there are degrees ofSEAQUAKES 273 intensity in seaquakes just as there are in landquakes,though the means and agencies by which they are made sensible are much more limited. Among many hundreds of reports from ships at sea which Dr. Rudolph has collected are a few which indicate intensities of a high order. Thus one master of a vessel reports: "We felt a shock so strong that the entire crew was brought to its feet at once; the wheel flew from the hand of the steersman and I myself was flung down upon the deck." He quotes Virlet d'Aoust, a French geologist,who in a paper on earthquakes states that

in an earthquake experienced on the coast of Asia Minor:
"Our ship was over the epicentre and was so severelyshaken
that at first the Admiral feared the complete destruction of
the corvette.
"
Heavy objects including cannon and their
carriages were thrown up from the deck. The corvette
itself seemed to be hurled upwards. The statement that
heavy objects have been lifted from the deck and the vessel
itself lifted as if projected upwards is by no means unique,
for Dr. Rudolph has collected a considerable number of
them. The exact amount of credence we ought to con- cede
them or the precise interpretation we ought to giveThe exact amount of credence we ought to
con- cede
them or the precise interpretation we ought to give
them is another matter. We seem to be justifiedin believ- ing
that in rare cases the power of the shocks may be great
enough to render standing on the deck as difficult as it
sometimes is on land. It may even be great enough to
cause the fear that the vessel is being shaken to pieces.
The tremors imparted to the vessel from the water and the
strange sounds from ocean depths are readily explained.
The only form of elastic wave which a fluid medium can
transmit is the normal wave. This mode of vibration the