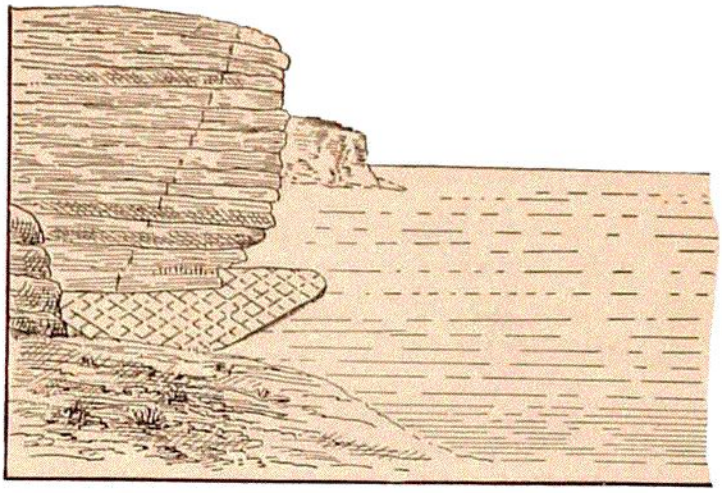
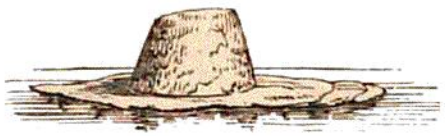
This feature of wave-action, and the reality of a level of little or no wear above low tide, are well illustrated by facts observed by the author in 1840 on the coasts of Australia and New Zealand. In Fig. 192 (representing the south cape at the entrance to the harbor of Port Jackson, New South Wales), the horizontal strata making the base of the cliff, cut crosswise by joints, extend out in a platform a hundred yards wide. The tide rises and covers the platform; and the waves, unable to reach its rocks to tear them up, because of the protection thus afforded, drive on to batter the lower part of the cliff. The strata belong to the Sydney sandstone formation. At the Bay of Islands, New Zealand, there is a similar seashore platform, as illustrated in Fig. 193, representing an island in the bay called "The Old Hat." The rock here is a rather firm argillaceous sandstone without bedding. By elevation such shore-platforms become sea-border terraces.

192.



Cliffs at entrance to Port Jackson, New South Wales, Australia. D., Note-book, '40.

193.



"The Old Hat," New Zealand. D. '40.

Another region of such shore-platforms is the Island of Anticosti in the Gulf of St. Lawrence. They have a width there of 100 to 150 yards (Verrill). The broad seashore platform of coral islands or atolls has the same origin (page 146). It occurs on both their leeward and windward sides, and varies little in surface from horizontality. Coral-made limestone, like other kinds, is of easy abrasion.

As here shown, there is a limit to wave-abrasion. Under the circumstances stated, *it does not cut much below low-tide level.* Even an atoll stands its ground and grows in size in spite of the waves of a Pacific. Much less can wave action cut valleys into the land. Its province is to batter down cliffs, wear off headlands, and fill up bays.

The largest blocks that are raised and carried up seashore are those that are forced along by *earthquake waves.* These waves commence their tearing work at depths that at other times are under the protection of the waters, and the waters, which had retreated from the shore to make the waves, advance to an unwonted height, and make deposits of what they have gathered at varying distances inland, according to their gravity, besides devastating the country they cover. But the depth of their action probably does not exceed 30 feet. A ship afloat is easily moved landward, more easily