horny substance enclosing the greater part of the curved spiral shell. Now if the recent *Spirula* had been weighted with such a rostrum it would probably have remained up to the present time utterly unknown to us. It is unwise to prophesy, but I certainly look upon some form allied to *Spirulirostris* as one of the most likely spoils of the deep sea. From the Tertiaries we pass to the Cretaceous forms, and find in *Belemnitella* the chambered shell straightened and reduced, and the 'guard' greatly increased in size. If Belemnites were deep-sea animals, as seems very probable, and if any of them still exist,—from the form and weight of their shells it is scarcely possible that they should ever be thrown up on the shore, and without deep-sea dredging they might remain for ever unknown. I merely mention this to show that it is by no means safe to base even what little argument might rest upon it, upon the absence at the present time of all representatives of the cretaceous cephalopodous fauna.

The gasteropods, with comparatively few exceptions, range from the shore to a depth of 100 to 200 fathoms, and lamellibranchs become scarcer at a slightly greater depth; while some orders of brachiopods, crustacea, echinoderms, sponges, and foraminifera, descend in scarcely diminished numbers to a depth of 10,000 feet. In fact, the bathymetrical range of the various groups in modern seas corresponds remarkably with their vertical range in ancient strata.

A change in the distribution of sea and land involving a mere change in the course of an ocean-current might modify the conditions of an area for