comparatively slight; walls thin, rough externally. Length indefinite, specimens seldom found with either end entire; sometimes $\frac{1}{12}$th inch (2 mm.) or more.

Reophax adunca, as ordinarily met with, consists of a moniliform line of slightly inflated segments so nearly alike that it is difficult to say which is the growing end of the test; indeed it is quite possible, for any evidence that exists to the contrary, that it may put on fresh segments at either extremity. It resembles to some degree both *Reophax guttifera* and *Hormosina monile*, but is less regular in outline and has thicker stolons than the former; and its want of regularity, comparatively small size, and rough exterior distinguish it from the latter species.

Reophax adunca is found as far north as the Farö Channel, 540 fathoms; and at about the same latitude in mid-Atlantic, 1750 fathoms; south of Rockall Bank, 1215 fathoms; and off the Canaries, 1125 fathoms. It occurs at three Stations in the South Atlantic, 675 to 2200 fathoms; at two in the Southern Ocean,—between the Cape of Good Hope and Kerguelen Islands, 1570 fathoms, and south of Australia, 2600 fathoms; at two points in the South Pacific, 1375 and 1425 fathoms respectively, and at three in the North Pacific, 2050 to 2900 fathoms.

Reophax membranacea, H. B. Brady (Pl. XXXII. figs. 1–4).

Reophax membranacea, Brady, 1879, Quart. Journ. Micr. Sci., vol. xix., N. S., p. 53, pl. iv. fig. 9.

Test long, slender, tapering, arcuate or nearly straight; consisting of several (5 to 10) subcylindrical or elliptical segments joined end to end. Walls thin, chitinous, beset with minute adherent sand-grains; often transversely wrinkled. Length, $\frac{1}{18}$th inch (1·4 mm.).

In one or two deep soundings from very muddy bottoms minute moniliform *Lituolæ* have been found, possessing a delicate investment of light brown tint and nearly transparent. The test is only partially soluble in weak acids, and it appears to consist of calcareous and chitinous matter, with sometimes a few very minute, adherent or embedded siliceous sand-grains. The mineral constituents exist in sufficient quantity to effervesce slightly with an acid, and to render the test brittle rather than flexible after it is dried; but the surface is wrinkled transversely, in a manner strongly suggestive of a membrane covering a soft or plastic mass. Referring to the drawings of the species in Pl. XXXII.—figs. 1 and 2 represent specimens in their natural condition, mounted dry; fig. 4 a specimen mounted in Canada balsam, viewed by transmitted light; and fig. 3 a test that has been treated with dilute acid, mounted in balsam. Unfortunately the species is