

*Vaginulina legumen*, var. *arquata*, nov. (Pl. CXIV. fig. 13).

Over a considerable area of the North Atlantic, at depths of less than 1000 fathoms, there occurs a variety of *Vaginulina legumen* characterised primarily by its peculiar arched contour and its very large dimensions. The test is sometimes half an inch in length and proportionately broad; it is quite smooth externally, and the septa, especially in very large specimens, are often scarcely visible, owing to the thickness and opacity of the shell-wall.

This variety is one of a series, of which the shell figured by Parker and Jones under the name *Marginulina lituus* (Phil. Trans., vol. clv., pl. xiii. fig. 14, *a.b.*) exemplifies another stage, connecting the typical *Vaginulinæ* with *Cristellaria compressa* and the allied forms.

*Vaginulina spinigera*, H. B. Brady (Pl. LXVII. figs. 13, 14).

*Marginulina*, sp., Whiteaves, 1872, Report Brit. Assoc., Brighton Meeting, Trans., p. 144.

*Vaginulina spinigera*, Brady, 1881, Quart. Journ. Micr. Sci., vol. xxi., N. S., p. 63.

Test short and broad, as compared with typical specimens of *Vaginulina legumen*; compressed and somewhat tapering; terminating at the primordial end in two (rarely three or more) long stout spines, one of which is usually in a line with the main axis of the shell, whilst the others radiate at various angles. Length of the shell without the spines, about  $\frac{1}{7}$ th inch (3.6 mm.), the spines often about two-thirds as long, or even occasionally as long as the body of the test.

Mr. Whiteaves has accurately described this striking Foraminifer (*loc. cit.*), referring it to the genus *Marginulina*, but without giving it a specific name. The name *Marginulina spinosa* appears in one of the lists of the marine fauna of the coast of Norway published by the late Prof. M. Sars,<sup>1</sup> but as it is unaccompanied by either description or figure it can only be surmised that it may possibly be intended for the same form. With reference to the generic affinity of the species it may be observed that the test is always a good deal compressed, and therefore so far as the distinction between *Vaginulina* and *Marginulina* is of any value, the species belongs to the former rather than the latter genus.

*Vaginulina spinigera* is not uncommon in the North Atlantic, north of lat. 45° N., at depths ranging from 100 to 1200 fathoms. In the Challenger collections it is exceedingly rare, but single specimens have been obtained from three Stations, namely:—off the coast of South America, near Pernambuco, 675 fathoms; off Sydney, New South Wales, 410 fathoms; and off the Ki Islands, 580 fathoms.

<sup>1</sup> *Vidensk.-Selsk. Forhandlingar*, 1868, p. 248.