

him, M. Terquem, figure distinctly limbate specimens under the name of *Spiroloculina depressa*; but d'Orbigny's model of the latter species has no sutural limbation, and appears to be the same as the *Spiroloculina planulata* of Lamarck. The illustrations presented in Pl. IX. figs. 15-17 are taken from what appear to me good typical examples of the limbate form.

A few specimens of somewhat thinner contour and more delicately made, shown in Pl. X. figs. 1, 2, occur in one of the Challenger dredgings in shallow water, off the southern coast of Papua. On the strength of their distinctly limbate septal lines I have classed them provisionally as a variety of this species, notwithstanding their comparative tenuity and their flat instead of somewhat concave lateral surfaces.

*Spiroloculina limbata* occurs in all the great oceans, as well as in the Mediterranean and the Red Sea. It is commonest in shallow water, but is tolerably frequent to a depth of 400 fathoms; beyond that it becomes rare, and except at one Station off the north coast of Papua (1070 fathoms) it has not been met with at greater depth than 700 fathoms.

It is found as a Tertiary fossil in the Septaria-clay of North Germany (Bornemann), in the Pliocene marls of Italy (Soldani, d'Orbigny) and Sicily (Jones and Parker), and in the Glacial Clays of Norway (M. Sars), and of the north-east of Ireland (Wright).

*Spiroloculina excavata*, d'Orbigny (Pl. IX. figs. 5, 6).

*Spiroloculina excavata*, d'Orbigny, 1846, For. Foss. Vien., p. 271, pl. xvi. figs. 19-21.

„ „ Brady, 1865, Nat. Hist. Trans. Northd. and Durham, vol. i. p. 93, pl. xii. fig. 1.

„ „ Terquem, 1875, Anim. sur la Plage de Dunkerque, p. 38, pl. v. fig. 17, a, b.

This species may be briefly characterised as having thick edges and deeply sunk centre. The most "excavated" specimens take the somewhat elongate contour represented in the drawings, and have the final segment extending a little beyond the rest of the shell. Such forms must be sought chiefly in the shallow water surrounding the coral islands of the Pacific. D'Orbigny's figure is taken from the broader variety, which, in the living condition, is not uncommon amongst the *Miliolæ* of temperate latitudes.

*Spiroloculina excavata* is very widely distributed, but it does not extend into the colder seas beyond the temperate zones, nor are the specimens usually very abundant. It is at home in shallow water, rarely exceeding 100 fathoms, but specimens have been found in one locality at a depth of 420 fathoms.

D'Orbigny's fossil specimens were from the Miocene beds of Baden in the Vienna Basin.

*Spiroloculina impressa*, Terquem (Pl. X. figs. 3, 4).

*Spiroloculina impressa*, Terquem, 1878, Mém. Soc. géol. Fr., sér. 3, vol. i. p. 53, pl. x. fig. 8

In his memoir on the Foraminifera and Ostracoda of the Upper Pliocene of the Island of Rhodes, M. Terquem figures two *Spiroloculinæ*, very much alike in their general features, with the names *Spiroloculina grateloupi* and *Spiroloculina impressa* (*op. cit.*,