During the very early stages of growth the shell-wall is thin and transparent, and smooth externally; but in a considerable proportion of pelagic specimens the surface of the test is more or less beset with needle-like spines, even before the shell is fully grown. The spinous character is not peculiar to any one species, but, on the contrary, examples of every form hitherto found in surface-water have been observed at one time or other in the hirsute condition. The length and substance of the spines vary greatly in different surface-gatherings, and there are nearly always present a considerable number of non-spinous shells. The *Globigerinæ* found in bottom-dredgings are rarely spinous, except when they happen to have been obtained from the thin top layer of the deposit. The spines are too delicate to bear the least attrition, and they are speedily broken or worn down by contact with other organisms. As the shell thickens it becomes areolated externally by cup-shaped depressions being left around the perforations. This also is a generic rather than a specific character, though more noticeable in some forms than in others. In worn specimens the surface is often only rough or granular.

The substance of the shell increases with age; and in some cases the walls attain a thickness of $\frac{1}{250}$th inch (0·1 mm.) or more, equal to about one-eighth of the longer diameter of the test. The shell is always conspicuously perforated, but the size of the pore-canals differs in the various species, ranging from a diameter of $\frac{1}{10,000}$th inch (0·0025 mm.) in *Globigerina pachyderma* to $\frac{1}{3000}$th or $\frac{1}{2500}$th inch (0·0084 or 0·01 mm.) in *Globigerina sacculifera* and *Globigerina conglobata.*

The typical aperture, a description of which has been already quoted, consists of the orifices of the individual segments opening directly into a deep umbilical recess; but this is only exemplified in *Globigerina bulloides* and its immediate allies. In another group of forms the external aperture is a single lunate or arched orifice at the inferior umbilical margin of the final segment; in a third series the single inferior orifice is supplemented by a number of rounded openings on the superior face; whilst in the planospiral varieties the aperture is symmetrically placed at the inner margin of the terminal segment, or, when the convolutions are loose and not in immediate contact, the orifices of the individual chambers are left unenclosed and the condition approaches that of the type.

On the basis of the characters which have been enumerated the genus may be divided into a number of more or less well-marked groups, which, though they have no claim to rank as true species, have features sufficiently persistent for easy definition. These different sub-species, or varieties, or whatever they may be called, vary in zoological value. In some the characters exhibit as much constancy as is usually found amongst the Foraminiferal species, whilst others represent only the salient points of an easily-traced gradational series. The arrangement of the following scheme is to a certain extent artificial, but on the whole it presents a natural and easily comprehended view of the genus.