structure of the shell. Here we restrict the definition to those spongy Sphærellaria in which the central capsule and the enclosing spongy cortical shell are ellipsoidal or cylindrical, therefore each transverse section is a circle, and each meridional section an ellipse, as in all Prunoidea.

The Cortical Shell in all Spongurida is composed of a delicate framework of irregularly branched and interwoven siliceous threads; commonly this spongy structure is rather dense or compact, but sometimes also very loose. In the simplest form, *Spongellipsis*, the spongy cortical shell contains a large cavity, in which lies freely the central capsule. In *Spongurus* this cavity is completely distended by a spongy framework. In this case the solid spongy shell becomes often prolonged, and its original ellipsoidal form passes over into a cylindrical one (as in many Zygartida). Sometimes (particularly in *Spongocore*, Pl. **48**, fig. 6) the cylinder becomes three-jointed by two more or less distinct annular constrictions. *Spongocore* is distinguished by an outer veil, a thin lattice-lamella, which envelops the spongy shell and is connected with it by radial beams.

The Medullary Shell, absent in the Spongellipsida, is constant in the second subfamily Spongodruppida. It is either a simple latticed shell (*Spongodruppa*) or double, composed of two concentric latticed shells (*Spongoliva*); its form is either spherical or ellipsoidal. It lies in the middle of the central capsule, and is connected by radial beams (perforating the membrane of the latter) with the enveloping spongy cortical shell.

In many Spongurida the surface of the shell is armed with radial spines, and in some genera (*Spongoprunum*, *Spongatractus*, &c., Pl. **17**, fig. 12), on both poles of the main axis, are developed two strong opposite polar spines, as in many other Prunoidea.

The Central Capsule of the Spongurida is either ellipsoidal or cylindrical. Only in *Spongellipsis* it lies freely in the internal cavity of the spongy shell. In all other genera it is perforated by a part of the skeleton; in the Spongodruppida it contains the simple or double medullary shell, and the radial beams which perforate its membrane and connect the latter with the external spongy cortical shell. In *Spongurus* and the allied genera (*Spongocore*, *Spongoprunum*) the whole central capsule is filled with a spongy framework which also envelops its surface.