curved, tapering from the base to a sharp point, reaching 0·15 mm. in length with a diameter of 0·01 (Pl. V. fig. 1*d*).

Inner quadriradiate spicules.—Basal ray straight, tapering from base to sharp point, usually rather thinner than lateral rays, forming with each of them an angle of about 100°, length inconstant, varying from 0·18 mm. to 0·5 mm.; lateral rays curved inwards, tapering from the base to sharp points, reaching 0·3 mm. in length, 0·0125 mm. in diameter; most of them are truly quadriradiate, their apical ray being occasionally longer (0·2 mm.) than that of the outer quadriradiate spicules; its length is, however, variable, and there are amongst the inner quadriradiate spicules others with a merely embryonal apical ray, and even quite deprived of it (Pl. V. figs. 1*e*, 1*f*).

Minute acerate spicules.—Straight or slightly curved, spindle-shaped, tapering from the centre to a sharp point at either extremity, usually 0·1 mm. long, 0·002 mm. in diameter.

Skeleton of the radial tubes.—The tubar skeleton consists of subgastric triradiate spicules, reaching with their centrifugally directed basal ray the zone of the cortical acerate spicules, of tubar acerate spicules lying parallel to the basal ray just mentioned, and of tubar quadriradiate spicules scattered here and there at the bottom of the radial tubes.

Subgastric triradiate spicules.—All rays of the same thickness (0·013 mm.); basal ray straight, tapering from the base to a sharp point, its average length 0·3 mm.; lateral rays slightly curved inwards, forming with basal ray an angle varying from 100° to 110°, rarely exceeding 0·15 mm. in length (Pl. V. fig. 1 *a*).

Tubar quadriradiate spicules.—All rays in different planes, lateral rays forming one curve, basal and apical rays another; basal ray bluntly pointed, cylindrical, 0·0025 mm. thick, rarely longer than 0·003 mm.; lateral rays straight or slightly curved, tapering from the base to sharp points, each forming with basal ray an angle of about 110°, reaching 0·05 mm. in length, with a diameter of 0·002; apical ray slightly curved, sharp-pointed, of the same diameter as lateral rays, but usually three times shorter (Pl. V. fig. 1 *g*).

Tubar acerate spicules.—Straight or slightly curved, tapering from the centre to sharp points, rarely longer than 0·3 mm., with a diameter of 0·005.

Skeleton of the cortex.—The skeleton of the cortex consists of large spindle-shaped acerate, of minute acerate, and of sagittal triradiate spicules, with the basal ray directed towards the closed end of the Sponge.

Large acerate spicules straight or slightly curved, tapering from the centre to a sharp point at either end; length varying from 1 to 3 mm., diameter from 0·05 to 0·12 mm.

Minute acerate spicules.—Like those of the gastric surface spindle-shaped, straight, or slightly curved, tapering from the centre to the sharp points; rarely exceeding 0·15 mm. in length, and 0·0028 mm. in diameter.

Sagittal triradiate spicules.—Basal ray smooth, either of cylindrical form or tapering from the base to a sharp point, reaching 0·75 mm. in length, with a diameter of 0·005; lateral rays sharp-pointed, forming with basal ray an angle of 112°, either straight or more