outer layer of scales or spindle-shaped calcareous bodies, which overlap one another on opposite sides and exhibit a very fine sculpture, which, however, can only be made out with a somewhat high magnifying power; and an inner layer of small plates, at times branched, which are united with one another by toothed edges and often exhibit a double or four-fold structure.

The polyps are not retractile, the tentacles which are armed with spicules protect the mouth-opening by folding in over it.

The axis is, for the most part, horny, iridescent on the surface. The base is always calcified.

Verrill[1] included in the genus *Dasygorgia* a number of species of his Chrysogorgidæ, which in several characters seem separate from the genus *Chrysogorgia*, with which they have the mode of branching in common.

Verrill's diagnosis runs:—"Coral much branched, often spirally, the branches repeatedly forking. Calicles obliquely placed on the branches, swollen at base, covered with flat, oblong spicula, which are arranged longitudinally or obliquely. Spicula of the cœnenchyma oblong or scale-like, nearly smooth." Verrill refers to this genus five species, all from more or less deep water off the coast of New England and the West Indian Seas.

The ramified Dasygorgidæ of the Challenger collection may all be referred to this genus, but the diagnosis requires to be considerably emended.

The colony always consists of a main stem, which rises from a calcareous basis, and of branches, which come off from it almost at right angles.

The stem is upright; its axis consists of very close, concentric, horny fibres, with calcareous deposits. Occasionally only it is flexible and elastic near the point. Its colour is golden to a dark brown, the surface is iridescent with metallic reflections in individual places. The stem axis is never straight, but always exhibits, at the places where the branches come off, an angular bending, the apex of the angle indicating the origin of the branch. If the branches arise from the stem in alternating series, the axis shows a zigzag bending along its course. Frequently a spiral twisting of the stem is associated with this. In the simplest case the branches arise from the stem in alternating series from the two opposite sides; they frequently arise from three sides in short, ascending spirals, and in individual cases they arise from five sides in spirals that follow closely upon one another. The ramification of the branches is again highly characteristic, and may best be compared with the form of the uniparous helicoid cyme common in plants.

Every branch gives off twigs from one side only, and every twig may, in the same way, bear lateral twigs, which may further anastomose. At the point where a twig or a lateral twig is given off, the main twig is bent at an angle in the opposite direction. Hence the appearance of bifurcation frequently arises, the twig that comes off forming a

[1] *Bull. Mus. Comp. Zoöl.*, vol. xi. No. 1, Report on the Anthozoa dredged by the "Blake," p. 21.