

they project above the margin in eight small teeth. The base of each tentacle contains two long spindles, converging together towards the apex in the form of a V, between which may lie another median spindle. These form a tentacular cover. The spicules of the head measure 0.63 by 0.05 mm.; 0.5 by 0.02 mm., &c.

The colour of the colony varies throughout according to the locality. The stem and branches are yellowish-white, and in the branches there occur individual purple spicules. The twigs on isolated branches are yellowish-white, but on most are purple. The polyp heads are always white.

Habitat.—Station 188, Arafura Sea; lat. 9° 59' S., long. 139° 42' E.; depth, 28 fathoms; bottom, green mud.

β. Laxa.—The polyp heads occur in loose groups on the scattered twigs.

Spongodes laxa, n. sp. (Pl. XXXVI. figs. 5a, 5b).

The stem is flabby, cylindrical, it is simply rounded off and smooth at the base, giving off flabby branches at wide intervals on two sides. The branches, just like the main stem, are loosely covered with small secondary branches coming straight off from them; these are provided with divergent twigs which bear the polyps. The polyps have long peduncles and come off at long distances from one another.

Length of the colony,	82 mm.
Thickness of the main stem near the base,	12 "
Length of one of the larger branches,	30-40 "
Length of the secondary branches,	6-8 "

The main stem gradually diminishes in size from the base to the apex, it is simply rounded off at the bottom, without any root-portion which might serve to fix it to the substratum. But some small, wart-like protuberances may represent scars indicating that the stem became constricted off from a basal portion, or that it originally developed stolons which have gradually become obliterated.

Already at the base a lateral branch comes off on one side, then follow, higher up, two other lateral branches at wide distances on two opposite sides. They come off at right angles from the stem but bend somewhat upwards in their course, they also diminish in size from the base to the apex, like the main stem.

The outer covering of the stem and branches is soft and flabby, and not calculated to give firmness to the colony. One recognises therein, with the aid of a lens, numerous irregularly disposed needle-shaped spicules. From the stem and branches spring, in like manner, short, stiff, secondary branches, coming off at right angles. These either again give off small lateral twigs, or divide directly into two or three short, divergent