

divaricate and contorted, close or spreading in all directions, seldom coalescent. Calicles deep, raised about 0.75 to 1.5 mm., rarely depressed, generally somewhat swollen at the base, uniformly circular except at the very extremity of the branchlets where they become slightly oval, placed irregularly at unequal distances apart, not infrequently in vertical lines, small especially on the branchlets, about 2 to 3 mm. in diameter. Costæ scarcely distinct except near the calicles, curved. Septa in three cycles, a little exsert, very granulated, thickened outside, their inner free edge vertical and scarcely projecting from the wall, and joining the pali low down in the cup, being separated from them by a very deep notch; the primaries thicker and more projecting than the secondaries, and these slightly more so than the tertiaries. Pali twelve, a little unequal, well developed, more so than in *Oculina speciosa*, wide and very thick, closely arranged in a circle and very distinctly bunch-like and apparently isolated in the cavity of the calicle, the secondaries being often more elevated than the primaries, but never so as to give a shallow appearance to the fossa. Columella well developed and consisting of rounded and thick papillæ.

The very numerous, long, crowded branches and branchlets spreading in all directions; the deep, rather prominent, small, circular calicles; the faint costæ; the narrow vertical septa; and the specially developed bunch-like group of pali forming a marked crown, will distinguish this from all other species. It is near the *Oculina speciosa*, but differs markedly in the characters of its calicles.

Locality.—Bermuda.

5. *Oculina speciosa*, Milne-Edwards and Haime.

Oculina speciosa, Milne-Edwards and Haime, Cor., ii. p. 106.

This specimen consists of a ramose corallum with few, long branches, remotely coalescent. Towards the apical parts of the branches the calicles are less raised than in the type, being scarcely 1 mm. above the general surface. On the thick branches they may be as prominent, or be scarcely raised; while in many places, as occurs also in the type specimen of Milne-Edwards and Haime, they are sunk in shallow, circular depressions about 8 to 9 mm. in diameter, so that curved ridges are formed between adjoining calicles. The costæ are distinct close to the calicles, but are only faintly marked at the base where they curve downwards, and are not at all marked on the ridges. The septa are rather broad and join the pali directly at the upper part of the shallow cup. In most of the calicles the pali are found as described by Milne-Edwards and Haime, but in not a few the primaries are very small, and often one or two are undeveloped, a condition that brings this species into very close relation with *Oculina valenciennesi*. The calicles seem to be always regularly circular and erect, though both in this and in the type specimen the extremities of the branches, where usually oval calicles are found in other species, are broken off.