

equalling the diameter of the axis, elongate, subcylindrical, compressed laterally. The spines are probably arranged in spirals, but their course is difficult to make out. They are arranged in longitudinal rows, six of which may be counted from one aspect. The members of each row are separated by an interval about equal to the length of a spine. The base of a spine is not much dilated, and the diameter decreases little until near the apex, when the lower margin curves rapidly upwards, forming with the upper margin a blunt point (Pl. XI. fig. 25). The type is in the British Museum (Reg. No. 83.8.29.6).

Habitat.—Off Inosima Island, Japan (Burge).

[*Antipathes*] *bifaria*, n. sp. (Pl. XI. fig. 20).

Corallum large and much branched, 90 cm. high, stem thick and sinuous, with strong branches, several of which are 24 to 30 cm. long. There is a sudden transition from the strong stem and branches to the slender branchlets and pinnules which they bear. The pinnules are usually arranged in a double row, enclosing a very narrow acute angle and directed upwards, or there may be only a single row. They are from 0.5 to 2.5 cm. in length, situated near the upper margin of a branchlet, and are directed forwards. The longer ones bear two to six secondary pinnules, all springing from near the anterior surface, and from 0.3 to 1.3 cm. long. The longer ones may again bear two or three second pinnules of a tertiary series.

The spines (Pl. XI. fig. 20) are very similar to those of *Antipathes myriophylla*, but are less hooked and not so crowded. The members of a row are one length apart.

Habitat.—Formosa (Swinhoe), Brit. Mus.

Group B. ANTIPATHIDÆ CUPRESSOIDES.

Corallum more or less cylindrical, of the "bottle-brush" type.

[*Antipathes*] *abies* (Linn.), Gray (Pl. XI. fig. 21).

Cupressus marina, Seba, Thesaurus, t. iii. pl. cvi. fig. 1; Rumph., Herb. Amb., t. vi. pl. lxxx. fig. 2.

Gorgonia abies, Linnæus, Syst. nat., ed. xii., p. 1290.

Antipathes cupressina, Pallas, Elench. Zooph., p. 213; Esper, Pflanzenth., Abth. ii. p. 143, pl. iii.

Antipathes cupressus, Ellis and Solander, Zooph., p. 103; Lamarck, Hist. nat. anim. sans vert., t. ii. p. 307; Lamouroux, Polyp. flex., p. 380; Encycl. méthod., t. iv. p. 71; Dana, Zooph., p. 581; Milne-Edwards, Coralliaires, t. i. p. 316.

Antipathes abies, Gray, Proc. Zool. Soc. Lond., 1857, p. 292.

Antipathes paniculata, Esper, Pflanzenth., Fortsetz., Abth. i. p. 184, pl. xii.; Lamouroux, Dana, &c., non Duchassaing.

Stem simple, or more rarely bearing one, two, or more branches, straight or somewhat flexuose, tapering. Branches usually short, stout, quickly tapering, paniculate, all