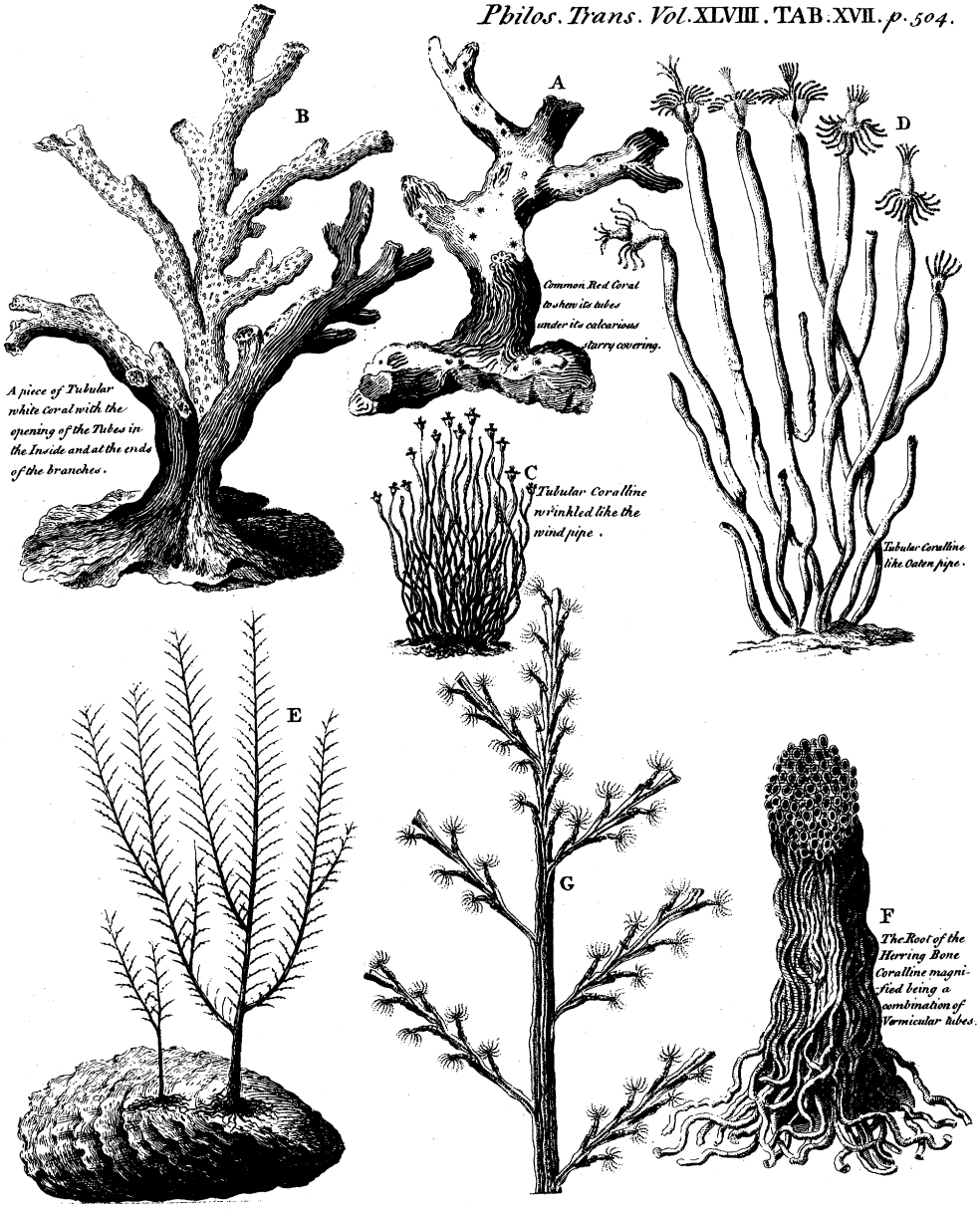
LXIV. *A Letter to Mr.* Peter Collinſon, *F. R. S. concerning a particular ſpecies of Coralline. By Mr.* John Ellis, *F. R. S.*

SIR,

Read Febr. 7, 1754. AMong the obſervations I have lately made on the marine productions, I find, that many corallines, as well as corals, are compoſed of a great number of tubes, which proceed from animals; and as theſe tubes are made of different materials in different ſpecies, ſo are they diſpoſed in variety of different forms. Some are united cloſely and compactly together, as in the red coral, ſee *Plate* XVII. letter *A*; and in ſome ſpecies of the white, as at letter *B*; in both of which they appear, combined together, forming irregular ramifications, like trees: Others riſe in tufts, like groupes of the tubular ſtalks of plants, diſtinct from one another. Two ſorts of theſe the fiſhermen frequently take up at ſea in their nets, particularly near the Buoy of the Nore, at the opening of the river Thames. When theſe are firſt taken out of the ſea, and immediately put into a baſon of ſea water, you may obſerve, that each tube has its proper polype, ſitting on it, of a moſt beautiful crimſon colour. Letter *D*, in *Plate* XVII. gives us the figure of the largeſt kind, called, in Ray's *Synopſis*, Ed. 3. p. 31. *Adianti aurei minimi facie planta marina*; and letter *C* is a ſmaller kind, called, in Ray's *Synopſis*, Ed. 3. p. 39. *Fucus Dealenſis fiſtuloſus laringæ ſimilis.*

To


B
A piece of Tubular white Coral with the opening of the Tubes in the Inside and at the ends of the branches.
A
Common Red Coral to shew its tubes under its calcarious starry covering.
D
Tubular Coralline like Oaten pipe.
C
Tubular Coralline wrinkled like the wind pipe.
E
G
F
The Root of the Herring Bone Coralline magnified being a combination of Vermicular tubes.

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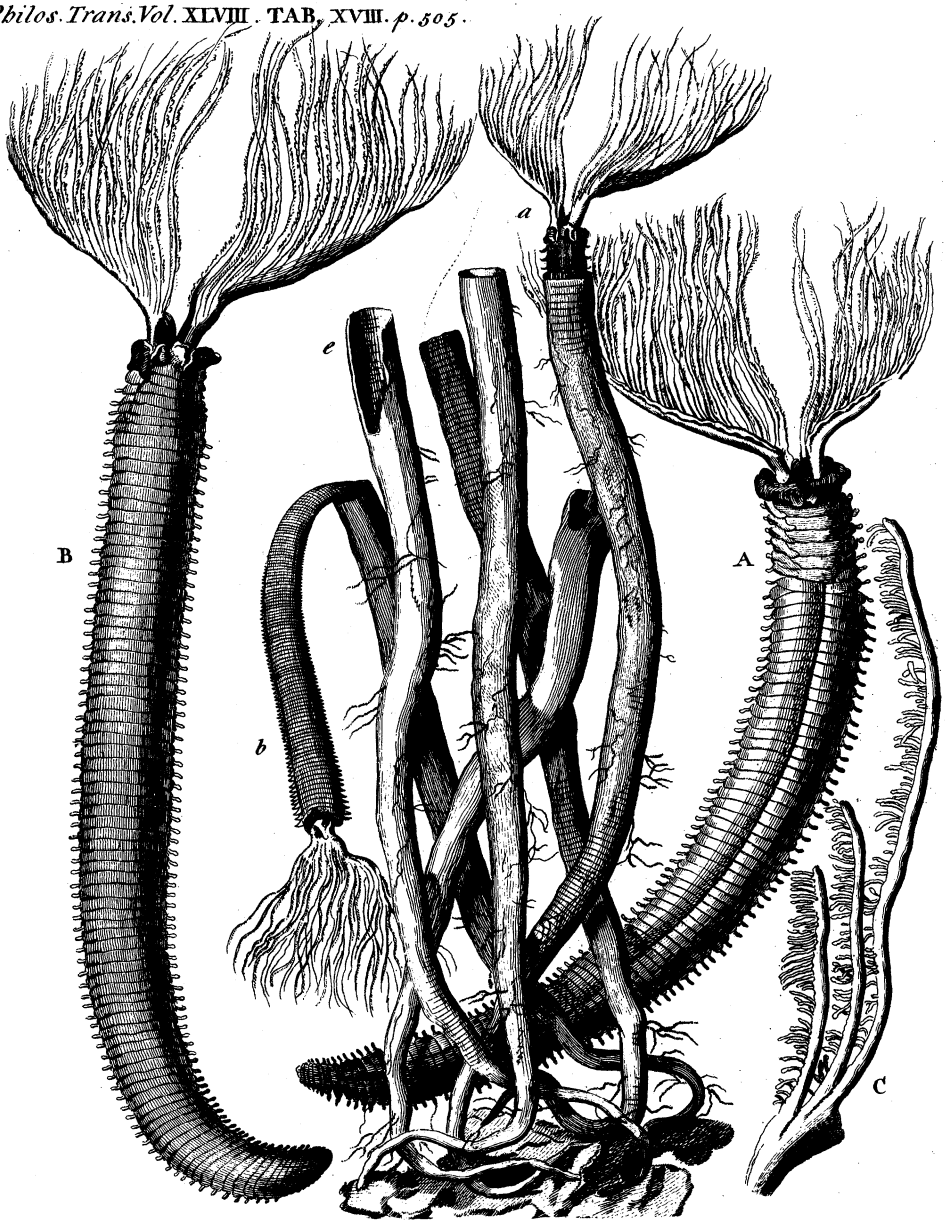

To theſe I ſhall join thoſe curious tubes, with their animals, which you were ſo kind to ſend me; and think this ſpecies may not improperly be called *Corallina tubularia Melitenſis, cum ſcolopendris ſuis, tentaculis duobus duplicato-pinnatis, inſtructis.*

Upon taking the tubes and animals of this curious Malteſe coralline out of the ſpirits of wine, wherein they had been preſerved, I perceived a ſmall ſlimy bag, in which they ſeemed to be inſerted, and to take their riſe from, as may be obſerved at letter *d*, *Plate* XVIII. What has been the uſe of this bag, is uncertain, unleſs we conjecture it to have been the matrix of ſeveral of theſe ſcolopendras in their embrio ſtate.

The tubes, which are built by the incloſed animals, as they riſe in height, gently increaſe in diameter: The texture of their outſide coat is formed of an aſh-coloured earthy matter, of different ſhades in different ſtrata, and cloſely united to an inner coat, which is of a tough, horny, tranſparent, and very ſmooth ſubſtance; the cavity, or inſide, of the tube, is perfectly round, tho' the animal is of a long compreſſed figure, like a leach extended. It appears, from the marks of its feet on the inſide of the tube, that it can turn itſelf freely about, and move up and down, the better to attack and ſecure its prey.

This ſcolopendra has two very curious and remarkable tentaculi, or arms, the left much larger than the right; theſe are doubly feathered, as may be ſeen, in the magnified part, at *C*: The number of feet on each ſide of the body of this animal exceeds one hundred and fifty.

The annexed *Plate* XVIII. will beſt explain the reſt; where *b* is the belly-part of the animal, in its natural ſize, hanging out of its tube.

B is the ſame ſide of the whole animal a little magnified.

a is the back-part of the head of the animal, ſitting in its tube.

A is the back-part of the whole animal a little magnified.

e ſhews the inſide of the tube with the ſtrata, or rings, ſeen through the horny inner coat.

I return you my thanks for this favour, and think, that the largeneſs and diſtinctneſs of the animals and tubes, in this ſpecies, ſerve greatly to illuſtrate that genus of corallines which I have called tubulary. I am,

SIR,

Your much obliged, and

obedient humble ſervant,

Lawrence Lane,
Feb. 7, 1754.

John Ellis.

P. S. The coralline called in Ray's *Synopſ.* Ed. 2. p. 2. and Ed. 3. p. 36. N° 15. *Fruticulus marinus, cauliculis craſſiuſculis teretibus rigidis, pennatus*, which I have named the herring-bone coralline, and which is very common on oyſters all the winter ſeaſon, ſhews remarkably, by the help of a common magnifying glaſs, the tubulary

lary ſtructure, not only of ſome of the corals and corallines, but of the keratophytons, or ſea feather; only with this difference, that the tubes of the herring-bone coralline are of a ſpongy elaſtic nature, and always remain open; whereas the others, being of a more ſoft and viſcid nature, by time, and the heat of the climate, are compreſſed together, and harden, ſome into ſtone, and ſome into horn or wood: But this I may explain, perhaps, more clearly hereafter.

In *Plate* XVII. you have, at *E*, the natural ſize and appearance of the herring-bone coralline; at *F* and *G* the root, and one of the upper branches, are magnified, to ſhew the tubes.

LXV. *Obſervations on the late ſevere cold Weather.* *By* William Arderon, *F. R. S. and* Henry Miles, *D. D. F. R. S.*

Part of a Letter from William Arderon, *F. R. S. to* Henry Baker, *F. R. S. containing Obſervations, made at* Norwich, *on the late ſevere cold Weather.*

Dear Sir,

Read Feb. 11, 1754. I Have not time to ſend you now a diſtinct account of all the obſervations I have been making this ſevere ſeaſon; but the few that follow will, I hope, excuſe me to you, for the preſent. They were taken by thermometers expoſed to