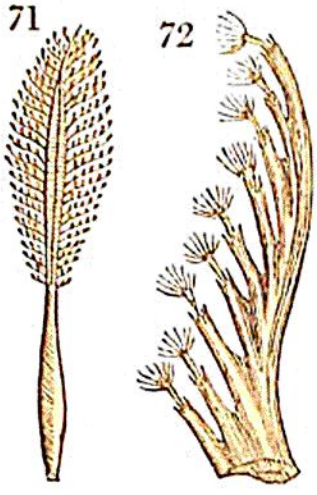
The Pennatula, (Fig. 71,) has been termed the *sea pen*, from the circumstance of its calcareous axis, or stem, having a double set of branches, extending in the same plane from both the sides, like the vane of a quill, and of its series of polypes being set along one edge of each branch, like the filaments which arise from the fibres of the feather. Some of these polypes are seen magnified in Fig. 72. Immense numbers of these curious animals are met with in different parts of the ocean. If they possessed in any degree the power of locomotion, which many naturalists have ascribed to them, we should be able to ascertain whether all their movements are conducted by a common volition, or whether they are performed independently of one another. It has often, indeed, been asserted, that pennatulæ swim through the water by their own spontaneous movements, consisting either in the waving up and down of the lateral branches, or in the simultaneous impulses of the tentacula of all the polypes. Cuvier even represents the polypes of the pennatula as having the power of keeping time, while they are waving the mass through the water, as if they were all actuated by a single undivided volition. But Dr. Grant, who has watched the motions of these animals with great care, is led by his observations to the conclusion that pennatulæ are not in reality possessed of any such locomotive faculty; but that they are carried to and fro in the ocean, like the gulf weed, without the slightest voluntary power of directing their course. Whatever may be the result of the combined movements of the tentacula, the arms are certainly incapable of those inflections which have been supposed to supply the means of progressive motion.



It is only when the contractile flesh of the polypus is released from the restraint which the solid axis imposes upon its movements, that the animal becomes capable of any distinct power of locomotion. Such is the condition of the