

seeming perpendicular to it, or bent more or less in the same direction, and again as if combed into one mass; but a moment afterwards every thread seems to be curled or waving, the main thread being straight or undulating; then the shorter threads will be stretched straight for some distance and then suddenly bent at various angles upon themselves, and perhaps repeat such zigzags several times, or they may be stretched in one direction and bent at various angles in the plane of another direction; then they may be coiled up from the tip and remain hanging like pearls suspended by a delicate thread to the main stem, or like a broken whip be bent in an acute angle upon themselves with as stiff an appearance as if the whole were made up of wires; and, to complete the wonder, a part of the length of the main thread will assume one appearance and another part another, and pass from one into the other in the quickest possible succession: so that I can truly say, I have not known in the animal kingdom an organism exhibiting more sudden changes and presenting more diversified and beautiful images, the action meanwhile being produced in such a way as hardly to be understood. For, when expanded, these threads resemble rather a delicate fabric spun with the finest spider's thread, at times brought close together, combed in one direction without entangling, next stretched apart, and preserving in this evolution the most perfect parallelism among themselves, and at no time and under no circumstances confusing the fringes of the two threads: they may cross each other, they may be apparently entangled throughout their length, but let the animal suddenly contract, and all these innumerable interwoven fringes unfold, contract, and disappear, reduced as it were to one little drop of most elastic india-rubber. Week after week I have preserved these animals alive, and have never been tired of comparing again and again their changes in these thousand-fold developments of their appendages. I have called together those who felt the slightest curiosity for such objects to witness these phenomena, and have found them all interested to the utmost; and if I have any thing to regret, it is not the time lost in this contemplation,—for the more I became familiar with the sight, the more was I impressed with its beauty, as I could contrast with the new forms presenting themselves before my eyes those different states with which I had been familiar before,—but the circumstance that the time was too short to trace such a connection between all the microscopic details of their structure and their functions, as would fully explain the latter; although I am aware that I have noticed many particulars which had not been observed before.

The chief difficulty in the comparative study of the different genera of this family arises from the circumstance, that they move permanently in different directions, some having the mouth naturally turned upward and others downward; and that, from not having perceived this difference, the parts placed in opposite positions