

The genus was first known in Europe by specimens brought from Japan by the celebrated naturalist and traveller, Von Siebold; and Japanese examples of *Hyalonema sieboldi*, GRAY, may now be found more or less perfect in most of the European museums. When the first specimen of *Hyalonema* was brought home, the other vitreous sponges which approach it so closely in all essential points of structure were unknown, and the history of opinion as to its relations is curious.

The being consisted of three very distinct parts: first, and greatly the most remarkable, the coil of silicious needles; then the sponge, and for long it was supposed that this was the base of the structure,—from which the glossy brush projected, spreading out above it in the water; and thirdly, the apparently constant encrusting zoophyte.

This complicated association suggested many possibilities. Was *Hyalonema* a natural production at all? Was it complete? Were all the three parts essentially connected together? And if not, were all the three independent, or did two of three parts belong to the same thing? and if so, which two?

*Hyalonema* was first described and named in 1835 by Dr. John Edward Gray, who has since, in one or two notices in the 'Annals of Natural History' and elsewhere, vigorously defended the essential part of his original position. Dr. Gray associated the silicious whisp with the zoophyte, and regarded the sponge as a separate organism. He looked upon the silicious coil as the representative of the horny axis of the sea-fans (*Gorgoniæ*), and the leather-like coat he regarded as its fleshy