introduced in its place the more recent name *Heliactis*, for Sagartidæ with numerous large papillæ; although Oken adduces *Cereus bellis* as the type form, which stands in the same relation to the genus *Heliactis*. The papillate Sagartidæ are of two kinds, the one having a soft surface, while in the other the body-wall is covered as far as its upper edge with a bark-like cuticle which recalls the Phellidæ; it is therefore advantageous to confine to the former the name *Heliactis*, applied, though unjustifiably, by Andres, and for the latter to restore *Cereus*, the old designation of Oken, a representative of the newly characterised genus being *Cereus spinosus*.

In discussing the families instituted by Andres, we next come to the Paractidæ. As I understand the diagnosis given for this family,—"margine tentaculato, non rilevato e privo d' acroragi,"—the tentacles spring at the edge where body-wall and oral disc pass into one another, just as is the case both in the Corallimorphidæ and Antheomorphidæ, which I have described in more detail, and, generally speaking, in such Actiniæ as are devoid of a circular muscle. But this relation also holds good in Actiniæ with a weak sphincter, as, for example, in *Anemonia cereus* (to which Andres, strange to say, ascribes a "margine rilevato"); and, finally, in Actiniæ, in which the sphincter is developed at some distance outwards from the upper edge of the body-wall. The facts adduced are sufficient to prove that this characteristic is systematically useless; and in addition to this I insist that the few forms grouped in the family do not appear to agree with the diagnosis. The tentacles of an *Anemonia* are, according to Andres, formations placed more at the edge than are those of a *Paranthus* or a *Paractinia*. On the contrary, the *Paractis peruviana*, which Andres adduces as the type of the family, seems to me to have no tentacles which would be marginal. Indeed, it agrees so entirely with a Challenger form, *Paractis excavata*, that I long doubted whether it were not right to unite the two. In *Paractis excavata*, I am certain that a strong mesodermal sphincter is present, and, corresponding to this fact, body-wall and oral disc are sharply marked off from each other, whence I conclude that the same holds for *Paractis peruviana*. Since I have thus good ground for holding unsuitable the methods by which Andres has instituted his family Paractidæ, and can, in addition, claim the right of priority, I adhere to the definition which I previously published, leaving only to future investigators to decide upon the advisability of erecting Actiniæ with marginal spherules, sucking-papillæ, and papillæ into a family separate from the Paractidæ (*sensu stricto*) with smooth body-wall.

The next family in the system of the Italian naturalist is formed by the Actinidæ, and corresponds to the Antheadæ and Actinidæ of Gosse. I formerly followed Gosse in separating these two families, but had previously maintained that anatomically they are closely related, and should perhaps on that account be united. I have therefore nothing to adduce against this proceeding of Andres, though the detailed investigation of the Actinidæ, which I recommended, has not yet been carried out. It is also