But since the admirable investigations of J. Müller have made us familiar with the extraordinary metamorphosis of Echinoderms, and since the Ctenophoræ and the Siphonophoræ have also been more carefully studied by Grube, Leuckart, Kölliker, Vogt, Gegenbaur, and myself, the distance which seemed to separate Echinoderms from Acalephs disappears entirely, for it is no exaggeration to say, that were the Pluteus-like forms of Echinoderms not known to be an early stage in the transformation of Echinoderms, they would find as natural a place among Ctenophoræ, as the larvæ of Insects among Worms. I therefore maintain, that Polypi, Acalephs, and Echinoderms constitute one indivisible primary group of the animal kingdom. The Polypoid character of young Medusæ proves this as plainly as the Medusoid character of young Echinoderms.

Further, nothing can be more unnatural than the transfer of Ctenophoræ to the type of Mollusks which Vogt has proposed, for Ctenophoræ exhibit the closest homology with the other Medusæ, as I have shown in my paper on the Beroid Medusæ of Massachusetts. The Ctenophoroid character of young Echinoderms establishes a second connection between Ctenophoræ and the other Radiata, of as great importance as the first. We have thus an anatomical link to connect the Ctenophoræ with the genuine Medusæ, and an embryological link to connect them with the Echinoderms.

The classification of Radiata may, therefore, stand thus:—

1st Class: Polypi; including two orders, the Actinoids and the Halcycnoids, as limited by Dana.

2d Class: Acalephae; with the following orders: Hydroids, (including Siphonophoræ,) Discophoræ, and Ctenophoræ.

3d Class: Echinoderms; with Crinoids, Asteroids, Echinoids, and Holothurioids, as orders.

The natural limits of the branch of Mollusks are easily determined. Since the Cirripeds have been removed to the branch of Articulata, naturalists have generally agreed to consider, with Cuvier, the Cephalopods, Pteropods, Gasteropods, and Acephala as forming the bulk of this type, and the discrepancies between modern investigators have mainly resulted from the views they have taken respecting the Bryozoa, which some consider still as Polyps, while others would unite them with the Worms, though their affinity with the Mollusks seems to me to have been clearly demonstrated by the investigations of Milne-Edwards. Vogt is the only naturalist who considers the Cephalopoda "as built upon a plan entirely peculiar;"[1] though he does not show in what this peculiarity of plan consists, but only mentions the well-known anatomical differences which distinguish them from the other classes

[1] VOGT, (C.,) Zoologische Briefe, q. a.; vol. 1, p. 361.