to produce distinct vision, through the medium of a number of minute facets, or lenses, placed at the extremity of an equal number of conical tubes, or microscopes; these amount sometimes, as in the Butterfly, to the number of 35,000 facets in the two eyes, and in the Dragon-fly to 14,000.

It appears that in eyes constructed on this principle, the image will be more distinct in proportion as the cones in a given portion of the eye are more numerous and long; that, as compound eyes see only those objects which present themselves in the axes of the individual cones, the limit of their field of vision is greater or smaller as the exterior of the eye is more or less hemispherical.

If we examine the eyes of Trilobites with a view to their principles of construction, we find both in their form, and in the disposition of the facets, obvious examples of optical adaptation.

In the Asaphus caudatus (see Pl. 45, Figs. 9 and 10.), each eye contains at least 400 nearly spherical lenses fixed in separate compartments on the surface of the cornea.* The form of the

* As the Crystalline lens in the eyes of Fishes is spherical, and those in the Eye of Trilobites are nearly so, there seems to be in this form an adaptation to the medium of Water, which would lead us to expect to find a similar form of lens in the compound Eyes of all marine Crustacea, and probably a different form in the compound Eyes of Insects that live in Air.