

xx is regarded as specifically connected with that of fig. 1, pl. xviii, or fig. 1b of pl. xx, and that figs. 1 and 2 of pl. xxi are considered to be specifically the same.

There are no differences of the bodies of figs. 1 and 2 of pl. xxi that are essential, except in the third segment of the thorax, as the broad and narrow forms of the figures are owing largely to the specimens having been compressed in opposite directions. The difference in the form of the third segment is of the same type as that in the genal spines of the head.

Fig. 1a, pl. xxi, shows the head of fig. 1 natural size. Fig. 2 of pl. xix is evidently the same; also figs. 2a and 2b of the same plate. With fig. 2a of pl. xix the transition to figs. 1b and 1i of pl. xx is natural, and then from fig. 1i of pl. xx to figs. 1b, 1e, 1g, 1d, and 1f. That this change is not a direct embryonic development is shown by the size of the heads and by the fact that it occurs in heads of nearly the same size, as in the head of fig. 2a, pl. xxi, figs. 1i, 1l, 1m, pl. xx, and fig. 2b, pl. xix.

If we do not accept the view that only one species is represented, and begin to break up the series, the complications that arise are much greater than the acceptance of one variable species, abnormal in its growth, as already described.

The spines of the head of fig. 2 of pl. xxi are of the same type as those of fig. 2d of pl. xix and 1f of pl. xx. If there is a specific difference between figs. 1 and 2, pl. xxi, it is in the length of the genal spines, as we have specimens with the long spines showing the variation in the outline of the head from fig. 1f, pl. xx, to a head of the same outline as the head of fig. 1, pl. xxi. In fact, fig. 1 of pl. xx is more nearly related to fig. 2 of the same plate, in respect to the strength of the spines, than to the average head of the species. With all the data that I can obtain, I think that we have but one species now placed under *O. Gilberti*.

Genus OLENOIDES Meek.

Olenoides Meek, 1877. Geol. Expl. Fortieth Par., vol. iv, pt. 1, p. 25.

Type *Paradoxides? Nevadaensis* Meek, 1870. Proc. Acad. Nat. Sci. Phila., vol. xxii, p. 62.

The generic description is drawn from the type species and the second species, *O. typicalis*.

General outline ovate. Head large, semicircular. Glabella straight or slightly expanded in front; marked by three pairs of furrows in *O. typicalis*. Eyes elongate. The facial sutures extend obliquely outward from the anterior base of the eyes and cut the frontal margin; posteriorly they cut the margin at the pleural angle and run subparallel to the margin, to the posterior end of the eye.

Thorax with eight or more segments; axis strong and pleural lobes well defined; pleural groove broad.