

I have no hesitancy in referring it to the same species as the head associated with it. The reason given by the authors of the species, that it was not a pygidium characteristic of the genus *Dicellosephalus*, to which they referred the head, is not accepted, as the head is not typical of *Dicellosephalus*. A still more cogent reason is the fact that we have a crushed and distorted specimen showing the head, thorax, and pygidium united. The thorax is so badly crushed that only five segments can be counted, and the head and pygidium are partially crushed on each other, owing to the doubling up of the thorax.

*Original description of the pygidium.*—"Pygidium semi-ovate, or short paraboloid, with a very strong central axis and spinose margin; anterior margin straightened for about two-thirds the width of the lateral lobes, where it curves abruptly backward to the lateral angles. Axial lobe strong, cylindrical, and prominent, forming one-third of the entire width exclusive of the spines, and reaching almost to the posterior margin of the shield; obtusely rounded at the extremity, and marked by six annulations, exclusive of the terminal ones. Lateral lobes very moderately convex, and marked by four divided ribs on each side, each terminating in a strong and proportionally long marginal spine; central area of each rib depressed, forming a flattened groove, extending to the base of the marginal spine. Borders of the ribs elevated, the anterior one strongest and prominent, gradually widening from its origin to the margin of the shield; posterior border narrow and rounded, separated from the next succeeding rib by a sharply-depressed, narrow groove. This peculiar form of rib gives to the shield an appearance similar to the groining of a Gothic arch. Margin of the shield surrounded by twelve long, rather strong spines, four of which, on each side, are about equal in size and strength, while the four occupying the posterior border are shorter and unequal, those in the middle being the shortest.

"The peculiar feature of the specimen consists in the divided ribs of the lateral lobes and spinose margin. In these features it differs from all others known, and may possibly, when better material shall be examined, showing other parts of the organism, require a distinct generic name."

By comparing the figures of *Olenoides Marconi*, pl. xxvi, figs. 5, 5a, with those of pl. xxix, figs. 2, 2a, the types of *Dicellosephalus Wahsatchensis* and *D. gothicus*, the generic identity is evident, although the pleural grooves on the anchylosed segments of the pygidium are not known to be present in that of *O. Marconi*.

The specific relations of *O. Wahsatchensis* are with *O. quadriceps*, as has been mentioned under that species.

*Formation and localities.*—Middle Cambrian. Box Elder Cañon, above Calls Fort, Wasatch Mountains, and also in Big Cottonwood Cañon, one mile below Argenta, in the same mountains.