

The figure of the head on pl. ii, fig. 11, Geol. Expl. Fortieth Par., vol. iv, is that of an unusually elongated specimen, and not the form that is most abundant. We give one that is the average form of a number of heads found at the type locality.

*Formation and localities.*—Middle Cambrian. Above Call's Fort, north of Box Elder Cañon, and one mile below Argenta, in Big Cottonwood Cañon, Wasatch Mountains, Utah.

PTYCHOPARIA HOUSENSIS, n. sp.

Plate xxv, fig. 5.

Head small, transversely quadrilateral exclusive of the free cheeks; moderately convex. Glabella rather small, of almost uniform width from the posterior margin to the rounded front; furrows shown only by a posterior pair; occipital ring strong and bearing a short small spine that extends obliquely upward and backward; occipital furrow of moderate depth and continued out as a strong groove on the lateral limbs; dorsal furrows broad and well defined. Fixed cheeks wider than the glabella; palpebral lobes small; ocular ridges strongly defined; frontal limb concave, of medium width, and rising to a strong frontal rim; postero-lateral limbs short. Surface finely granulose.

Free cheeks, thorax, and pygidium unknown.

This peculiar little head is associated with *Ptychoparia Kingi* and *Asaphiscus Wheeleri*, and, while we have over one hundred perfect specimens of these two species from the same bed, but one fragment of *P. Housensis* has been found. This is so strongly characterized by its form and occipital spine that I do not hesitate to give it a specific name.

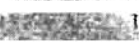
Specific name derived from the House Range.

*Formation and locality.*—Middle Cambrian. House Range, Antelope Springs, Utah.

PTYCHOPARIA PIOCHENSIS, n. sp.

Plate xxvi, figs. 2, 2a, b; pl. xxviii, figs. 1, 1a-e.

General form ovate, moderately convex, usually much depressed by being flattened in the shaly matrix.

Head transverse, semicircular; frontal margin comparatively narrow in young individuals, becoming broader and more flattened with the increase in size of the animal; postero-lateral angles prolonged into slender spines. Glabella of medium size, truncato-conical, and marked with three pairs of short glabellar furrows that increase in size and also in obliquity to the central axis on the larger heads; occipital groove shallow and rounded downward from the base of the glabella and upward to the moderately strong occipital ring; a small point or node occurs at the center of the latter. Fixed cheeks of medium width; they merge in front into  frontal limb and posteriorly into the