

as wide and quite uniform in many individuals, very depressed-convex or quite flattened, as occurring on the surface of the shale in which they are imbedded; glabella distinctly conical, moderately tapering above the occipital furrow, and broadly rounded in front; marked by three pairs of distinct transverse furrows, which are directed obliquely backward from their outer ends; the posterior pair almost or quite meeting in the middle, the others shorter and situated at almost equal distances from each other. Occipital furrow well marked, proportionally wide and shallow; occipital ring narrow, not well defined.

"Fixed cheeks very broad, nearly two-thirds as wide as the glabella, depressed-convex; frontal limb short, the broader and inner part of nearly the same width; sides of the limb in front, wide, and slightly rounded at the antero-lateral angles; posterior limb wide at its junction with the glabella, and rapidly narrowing outward, being about once and a half as long as its greatest width; ocular ridges slender, but very distinct, rising from the anterior angle of the eye and uniting with the glabella near the anterior furrow, forming a slightly curved line parallel with the marginal furrow of the head.

"Facial sutures directed inward from the anterior margin of the head to the eye-lobe, behind which they are directed outward and backward to the posterior margin of the head, at an angle of about forty degrees to the occipital line.

"A form of movable cheek found associated in considerable numbers with the glabellas, and corresponding in size and character, is narrowly triangular, the posterior extremity terminating in a short, blunt spine, slightly curved; inner angle strongly notched for the reception of the eye-lobe, and the outer margin bordered by a thickened, rounded rim, which gradually increases in width to the base of the spine. The facial suture corresponds to the margin of the fixed cheek above described, and, on the under side, the anterior border is prolonged in the form of an acute process, to extend along the anterior border of the frontal limb.

"The pygidium associated with the above specimens is minute, transversely subelliptical in form, most strongly rounded on the front border, with a wide axis terminating obtusely a little within the posterior margin. The axis is marked by five rings, exclusive of the terminal ones. Lateral lobes convex, marked by three or four divided ribs, exclusive of the anterior single one.

"Surface of the head and cheeks marked by fine anastomosing lines, radiating from the eye and front of the glabella."

This species, as far as we know its structure, is closely allied to *Ptychoparia Kingi*, and, with the latter species, to *P. Adamsi*. They are the representatives of the same specific type in the distinct localities at which they occur.

*P. quadrata* is associated with *Olenoides Wahsatchensis* in a dark, shaly argillite.