

bases of the eyes; encircling the latter, they extend obliquely outward, cutting the posterior margin so as to leave a narrow elongate lateral limb. Free cheeks unknown.

Thorax with from seven to nine segments; axis strong; pleural lobes well defined; pleural groove broad.

Pygidium semicircular; axis strong and crossed by several furrows; lateral lobes marked by the extension of the furrows crossing the axis.

Hypostoma of *B. producta* irregularly ovate; broadest a little forward of the center; posterior marginal rim raised; a strong sulcus extends around inside the rim; muscular scars well defined.

In many respects the head is similar to that of the genus *Olenoides*; the thoracic segments recall those of *Ptychoparia*, and the pygidium might be taken for that of a species of *Bathyrurus*, or perhaps *Ogygia*. The general assemblage of characters points to a generic type distinct from any known to the writer.

The geologic range of the genus is from the Middle to the Upper Cambrian. *Bathyriscus producta* is associated with *Kutorgina pannula*, *Olenoides typicalis*, and *Ptychoparia Piochensis*, &c., in a band of shale 2,000 feet below a typical Upper Cambrian or Potsdam fauna, such as *B. Haydeni* is found with in Montana. The intervening strata between the two species in the Highland Range, Nevada, are massive limestones. (See Highland Range section, p. 34.)

BATHYURISCUS HOWELLI n. sp

Plate xxx, figs. 2, 2a.

General form ovate. Entire form of head unknown, but from the parts preserved it appears to have been semicircular. Glabella clavate, expanding in front of the second pair of glabellar furrows; posteriorly the sides are subparallel to the occipital segment; the posterior pair of glabellar furrows are directed obliquely backward nearly to the occipital furrow; the second pair are less obliquely inclined backward, and the third pair penetrate directly in, one-third the distance on each side. Occipital furrow well defined; occipital ring rounded and rather strong. Eyes large, lunate, the extremities close to the glabella. Fixed cheeks very narrow; postero-lateral limbs narrow elongate; frontal limb narrow, slightly convex, and expanding but little in front of the glabella. The facial sutures cut the anterior margin and trend obliquely in to the anterior end of the eyes; encircling the large palpebral lobes, they extend outward from the posterior ends of the eyes and cut the posterior margin of the head well out towards the genal angle. Free cheeks unknown.

Thorax with eight segments. Axial lobe convex, tapering very gradually from the anterior segments to the pygidium; each segment is well defined and arches slightly forward; pleural lobes moderately convex; the segments curve gently backward from the genal angle and termi-