

somewhat justified in assuming that our trilobite lost this portion of his anatomy to a foe more voracious, if not larger, than himself. The occurrence certainly lends weight to the inference that the Lower Cambrian trilobite was not the supreme arbiter we have supposed him to be; however, he may have been struck by material dislodged from a ledge beneath which he was crawling.

*Horizon and Locality.*—Lower Cambrian, Mahto formation, collected from drift block on the slope of the Mural glacier just under Mumm Peak, Mt. Robson region, British Columbia. Collected by E. C. Annes.

*OBSERVATIONS.*—*Paedeumias robsonensis* differs from *P. transitans*—the only other species known—(a): (1) in having 29 instead of 2 to 6 rudimentary segments posterior to the spine-bearing fifteenth, and in the more highly developed character of the rudimentary segments—they are better described as small short ribs in *P. robsonensis*, while those of *P. transitans* are truly rudimentary; (2) in having a highly ornamented cephalic surface; (3) in the character of the glabellar furrows, which approach closely to those represented in the cephalon from Mt. Stephen, B.C., doubtfully referred to *Olenellus gilberti* by Walcott (b); and (4) in the width and flatness of the marginal cephalic rim.

*Paedeumias robsonensis* resembles *P. transitans* in general shape and outline, in the number and general character of the normal segments and the pleural furrows, and in the abruptness of the change from regular to rudimentary segments.

These resemblances seem to warrant the inclusion of *Paedeumias robsonensis* in the genus *Paedeumias*, but the differences are such as to justify its reference to a new species. The specific name *robsonensis* is derived from Mount Robson, in whose general vicinity this trilobite was secured.

*GENERAL CONSIDERATIONS.*—The resorption of segments posterior to the fourteenth or fifteenth in the genera of the Mesonacidae (a family of trilobites apparently confined to the upper portion of the Lower Cambrian) would seem to indicate that the functioning parts, those necessary for the life of the individual, were confined to the first fourteen. Once this adaptation to fourteen vital segments is made, and *Wanneria* appears to show the trilobite at the moment this took place, resorption of the remainder begins. The finding of 29 rudimentary posterior segments would seem to indicate that this resorption takes place laterally, that is, they become smaller in size before

(a) Walcott, Smithsonian Misc. Coll., vol. 53, 1910, pp. 305-310, pls. 24, 25, 32, 33, 34 and 44.

(b) Smithsonian Misc. Coll., vol. 53, 1910, pl. 36, fig. 16.