chrysalids of Arcolatus. Eurytris and Sosybius have the same general shape of S. Alope; stout and short, with the anterior end truncated, almost cut squarely off beyond mesonotum. But Gemma is long, slender, with the head case produced, and ending in two long conical processes like the horns of the larvæ. Probably Canthus will be found to have a chrysalis of this description. Debis Portlandia, in all its stages, comes very near Neonympha. In the first two stages it most resembles Canthus: after that, Canthus and Gemma. Its chrysalis is of the Satyrid type, very like that of Alope. The egg differs from all the species somewhat. It is of the same general shape, however, but has a rounded protuberance on the under side, and a smooth surface. Judging by the preparatory stages of Portlandia, Debis ought to stand next Neonympha in the catalogues. instead of being separated from it by several genera, as Coenonympha and Erebia. The preparatory stages of these two genera I only know from European authors, but species of both have barrel-shaped, ribbed eggs. and caterpillars with round heads, and no processes on vertices. agree, therefore, with Satyrus, and the genera should stand near Satyrus.

· The more I see of the preparatory stages of butterflies, the more I am impressed that no system of arrangement is a true one which does not consider these. Each unquestionably natural genus in the American diurnals is as distinct in its several stages as in the imago, so far as these are known. Between such genera fall some others less clearly defined, with the stages spoken of lying midway between also; as Euptoieta, which has the egg of an Argynnis, but the chrysalis of a Melitæa, while the larva is neither one or the other, though resembling Argynnis somewhat.

## THE NORTH AMERICAN SPECIES OF NEMISTRINIDÆ.

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The family of Nemistrinidæ comprises throughout the world one hundred and ten described species, six or seven of which are from Southern Europe and three from North America; the remainder nearly equally distributed in Asia, Africa, Australia and South America. In their habits, so far as known, the species approach the Bombylidæ most closely, as also do many in their general appearance. Structurally they are of interest to