

cheeks rather wide, smooth, with short spines at the genal angles. Pygidium small, with few traces of segmentation; convex; no border."

The writer finds from the investigation of the material lately collected by Dr. Raymond that the characteristics given by him as "glabella faintly defined, without glabellar furrows" is neither a generic nor a specific characteristic. The present collection fortunately allows a close comparison of the variety first figured and described by Walcott (5), his holotype, and the plesiotype later figured by him in his description of the Hoyt fauna. Here we have the two varieties closely associated, having lived and died under the same physical conditions. Judging from the few well preserved specimens examined by the writer, not more than nineteen in all, it would seem that the form with the smooth glabella predominated. Further and more careful collecting is necessary, however, before this assertion can be proved. It should be noted that Walcott in his first description already noted (p. 276) noticed "two pairs of slightly indented glabellar furrows that curve inward with a slight backward obliquity; on the casts of the interior of the larger specimens the furrows are scarcely to be seen——." But he shows no trace of these furrows in his figure. At any rate the presence or absence of glabellar furrows has in this case at least, nothing to do with the generic classification. We shall have more to say regarding the development of glabellar furrows later.

Walcott (7) in his second paper gives the following description of *Agraulos saratogensis*:

"Head convex, slightly semi-elliptical in outline and terminating in round, short, postero-lateral spines; glabella moderately convex, truncate conical, sides converging slightly towards the broadly rounded front, about  $\frac{1}{2}$  longer than wide; marked by two pairs of slightly indented glabellar furrows that extend inward with a slight backward obliquity; on the casts of the interior of the larger specimens the furrows are scarcely to be seen; occipital furrow well defined and arched forward at the centre; occipital segment rising to a short blunt spine at the centre and narrowing toward the sides; dorsal furrow well defined about the glabella. Fixed cheeks narrow; anteriorly they merge into the broad, rounded, frontal limb and posteriorly into the short posterior lateral limbs; palpebral lobes small and situated a little in front of the transverse centre of the head. The frontal limb about  $\frac{1}{2}$  the length of the head and curved down to the margin without an intervening furrow. Free cheeks convex and somewhat tumid, irregularly triangular in outline and without a marginal border. The associated pygi-