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ON THE VALIDITY OF THE GENUS PLETHOPELTIS, (Raymond).

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While studying some fossils collected by Dr. Percy E. Raymond from the Hoyt Quarry, Saratoga, the writer became interested in the relationship of the two forms which have been described by Walcott as Agraulos saratogensis. In his recent description (7) of the Hoyt fauna Dr. Walcott has figured a form with strongly outlined glabella, bearing glabellar furrows, while in his first description of the fauna he illustrated under this name a specimen with smooth glabella and very faint circumglabellar furrow. This latter, or "smooth-glabella" variety, is found to predominate in the collection. A still closer inspection of the material seemed to show that although both forms may belong to the same species, it is extremely doubtful if they are to be placed under the genus Agraulos. The writer believes that the following evidence shows that Raymond was justified in erecting his new genus Plethopeltis for trilobites such as Agraulos saratogensis Walcott.

To determine the validity of the genus Plethopeltis it is necessary to discuss the following facts. Raymond, in the "Revision of the Bathyuridæ" (8) designated Agraulos saratogensis instead of Bathyurus armatus Billings, as the type of the new genus Plethopeltis. It is undertsood that he did this because only a single cranidium of P. armatus was known and no pygidium, while numbers of pygidia were found associated with P. saratogensis. Some doubt has recently been expressed as to whether after all the species saratogensis should be removed from the genus Agraulos. If the latter be the case, then the genus Plethopeltis automatically drops out of the nomenclature. Raymond's generic diagnosis of Plethopeltis is as follows:—

"Cephalon strongly convex, wider than long, without concave border or marginal rim. Glabella faintly defined, without glabellar furrows. Eyes small, situated well forward. Free