result in a basal conglomerate resting with unconformity on older strata, and succeeded by sandstone and limestone in which

occur Maclurea magna.

Long after the deposition and lithification of the formation described, and perhaps of several succeeding ones, tectonic forces cause the deformation of the sub-zone X in the zone E. Obviously the age of the phenoclasts in this tectibreccia is much younger than the ages of any of the phenoclasts heretofore discussed, whether they are intraformational or even interformational. Finally, it is a fact that not all the types described can be distinguished in the field at a glance. Type X may be easily confused with gliding deformation structures; type D with type F, etc.

BIBLIOGRAPHY.

1.-Walcott, C. D.,: "Paleozoic Intraformational Conglomerates." Bull. Geol. Soc. Am., 1894, 5, p. 191.

 Grabau, A. W.: "Principles of Stratigrapy," N.Y., 1913.
Hahn, F.F.: "Untermeerische Gleitung bei Trenton Falls (Nord Amerika) und ihr Verhaltniss zu Ahnlichen Storungsbildern. Neues Jahrbuch fur Mineralogie, etc. Beilage Band XXXVI, pp. 1-41, taf. 1-3, 1912.

4.—Miller, W. J.: "Notes on the Intraformational Contorted Strata at Trenton lalls." Report of the Director of the

N.Y. State Museum for 1914, 1915.

5.-Kindle, E. M.: "Columnar Structure in Limestone."

Museum Bull. 2. Canada Dept. Mines Geol. Sur. 14, 1914.

6.—Hyde, J. E.: "Dessication Conglomerates in the Coal Measures Limestone of Ohio." Am. Jour. Sci. XXV, 1908, p. 400. 7.—Seeley, H. M.: Report of the Vermont State Geologist

for 1906, pp. 174-178.

8.—Brown, T. C.: "Notes on the Origin of Certain Paleozoic Sediments. Illustrated by the Cambrian and Ordovician Rocks of Centre County, Penna." Jour. Geol. XXI, 3.

9.—Seeley, H. M.: Report of the Vermont State Geologist

for 1901-1902, p. 153.

10.-Sardeson, F. W.: "Characteristics of a Corrosional Conglomerate." Bull. Geol. Soc. Am, 25, 1914, p. 271.

11.-Wallace, R. C.: "Pseudo-brecciation in Ordovician

Limestone in Manitoba.

12 .- Walcott, C. D.: "The Cambrian Rocks of Penna." Bull. 134, U.S.G.S., 1896.

13.—Agassiz, A.: "Three Cruises of the Blake," vol. 1,

p. 87, 1888.

14.—Raymond, P. E.: Excursions of the 12th International Congress, 1913. Guide Book 1. Excursion A 1, part 1, p. 29. 15.—Sardeson, F. W.: "The Folding of Subjacent Strata by

Glacial Action." Jour. Geol. XIV. (p. 226), April-May, 1906.