

and faunas in the State of New York, characterizing the close of the Devonian epoch. The equivalencies in time and true relations of the faunas were clearly delineated, and much satisfaction with new light resulted from the observations made by Prof. Hall. Messrs. I. C. White, E. W. Claypole, J. J. Stevenson, and others took part in the discussion.

"On the dentition of *Titarichthys* and its allies," was the subject of an interesting paper by Prof. E. W. Claypole, giving the result of his observations on the jaws of the gigantic fish which existed in Devonian times. An important matter relating to Devonian fishes came up at this meeting of the Geological Society, regarding the mode of occurrence or origin and habitat of the Devonian fishes. Were they *freshwater* or *marine* fishes? Were they lacustrine or sea fishes. Prof. J. J. Stevenson argued for their marine character, and Prof. Claypole for their freshwater nature. A revision of the evidence on this point is necessary before a conclusion can be arrived at.

Other papers read were as follows:—

Lawrence C. Johnson.—Notes on the Phosphate Fields of Eastern Marion and Alachua Counties, Florida.

G. F. Becker.—Finite homogeneous strain, flow and rupture of rocks.

Wm. H. Hobbs.—Phases in the metamorphism of the schists of Southern Berkshire.

Charles L. Whittle.—Some dynamic and metasomatic phenomena in a metamorphic conglomerate in the Green Mountains.

G. C. Broadhead.—The Ozarks and the geological history of the Missouri Palaeozoic—10 minutes.

David White.—A new *Taeniopterid* fern and its allies—10 minutes.

A. S. Tiffany.—The overturn of the Lower Silurian Strata in Rensselaer County, N.Y.—5 minutes.

Ancient Waterfalls.—7 minutes.

Of these last seven some were read by title others *in extenso* and others were briefly sketched out. Mr. David White's paper on a new *Taeniopterid* fern was a pleasing contribution to Palaeobotany and showed those present how exceedingly careful a palaeobotanist has to be in separating portions of the same plant, parts of which at times resemble