

GEOLOGICAL SOCIETY OF AMERICA, SPRINGFIELD,
MASS., 1895.

Abstracts and Titles of Papers Read at the August Meeting.

1. *On the Glacial Deposits of South-western Alberta, in the Vicinity of the Rocky Mountains.* By George M. Dawson and R. G. McConnell, Ottawa, Canada.

This paper presented the facts obtained during a recent examination of the glacial deposits of a portion of the south western of the Canadian Great Plains, in the foot-hills and along the base of the Rocky Mountains, where phenomena of particular interest are met with in connection with the relations of the western and eastern drift. (Cordilleran and Laurentide.) A brief summary of previous observations is followed by a description of sections along two main lines of approach to the mountains at relatively low levels and an examination of the conditions surrounding the glacial deposits at the highest levels, found in the form of terraces with rolled shingle at 5,300 feet on the Porcupine Hills. In conclusion, the observed facts are briefly discussed, attention being practically confined to the particular region treated in the body of the paper.

2. *The Champlain Glacial Epoch.* By C. H. Hitchcock, Hanover, N. H.

The Champlain was a true glacial epoch, when the land was considerably depressed. Glaciers from the north and south discharged bergs into an estuary. The fauna was arctic. Moraines and both the marine and fluvial clays covered till of an earlier ice-sheet. It is possible to harmonize the conflicting theories of glacial and ice-berg action by referring the greater ice-sheets to the earlier, and the floating ice phenomena to the later, Champlain epoch.

3. *Drumlins and Marginal Moraines of Ice-sheets.* By Warren Upham, Cleveland, Ohio.

4. *The Glacial Genesee Lakes.* By Prof. H. L. Fairchild, Rochester, N. Y.

The direction, inclination and extent of the Genesee Valley made possible the production, during the retreat of the ice-sheet, of a succession of glacial lakes with different outlets. The paper described, with the aid of a map, (1) the present topography and hydrography of the valley, (2) the ancient drainage channels, (3) the complex lacustrine phenomena.

5. *The Archean and Cambrian Rocks of the Green Mountain Range in Southern Massachusetts.* By Prof. B. K. Emerson, Amherst, Mass.

Description of a series of Archean anticlines partly overturned and thrust westward, and of the uniformity of the Cambrian conglomerate gneiss upon the old rocks.

6. *The Triassic in Massachusetts.* By Prof. B. K. Emerson, Amherst, Mass.

The stages of deposition and deformation of the sandstones and the relations of the effusive traps and tuffs and the intruded traps to the sandstones.

7. *Notes on Relations of Lower Members of Coastal Plain Series in South Carolina.* By Mr. N. Darton, Washington, D. C.