

Having lunch at the bottom of the Grand Canyon of Arizona, showing Colorado River.

## LIST OF PAPERS.

President's address.

#### ECONOMIC.

- 1. A. C. Lane—Field Assay of Mine Waters. (15 minutes.
- 2. Frank R. Van Horn—The Occurrence of Proustite and Argentite at the California Mine near Montezuma, Colorado. (5 minutes.)
- 3. E. H. Sellards—The Phosphate Deposits of Florida with Relation to the Underground Water Level.
- 4. Joseph Hyde Pratt—Asbestos Deposits of the Grand Canyon, Arizona.

### PHYSICAL AND STRUCTURAL.

- 5. Charles R. Keyes—Ancient Tectonics of the Basin Ranges. (10 minutes.)
- 6. Charles R. Keyes—Rock-Floor of Intermont Plains of Arid Regions. (15 minutes.)
- 7. George D. Louderback—The Chief Features of the Stratigraphy and Structure of Mt. Diablo, California. (30 minues.)
- 8. William Herbert Hobbs—The Earthquake in the Owens Valley, California, in 1872. (By title.)

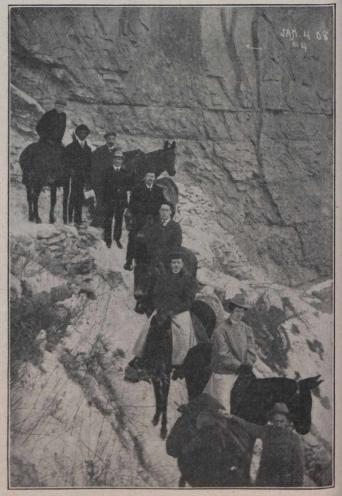
## GLACIAL.

- 9. A. P. Coleman—Glacial Periods and their Bearing on Geological Theories. (20 minutes.)
- 10. Frederick W. Sardeson—Beginning and Recession of Saint Anthony Falls. (By title.)
  - 11. Bohumil Shimek—The Nebraska "Loess Man."

12. Frank B. Taylor—The Distribution of Drumlins and its Bearing on their Origin. (By title.)

# STRATAGRAPHIC.

- 13. B. K. Emerson—The Cirques and Rock-Cut Terraces of Mt. Tobey, Mass.
- 14. H. P. Cushing—The Lower Portion of the Paleozoic Section in Northwestern New York. (25 minutes.)
- 15. W. H. Sherzer and A. W. Grabau—A New Fauna from Michigan. (30 minutes.)
- 16. C. W. Hall—The Red Sandstone Formation of Southeastern Minnesota. (10 minutes.
- 17. Frederick W. Sardeson—The Geologic History of the Redstone Quartzite. (By title.)
- 18. N. H. Darton—Geology of a Portion of Central Wyoming. (15 minutes.)
- 19. N. H. Darton—Some Features of Geology in Arizona and Western New Mexico along the line of the Santa Fe Railroad. (10 minutes.)
- 20. W. G. Tight—Relation of the Equus Beds of Kansas to Reversed Mississippi Drainage.
- 21. Willet G. Miller and Cyril W. Knight—Grenville-Hastings Unconformity. (25 minutes.)
- 22. A. C. Lane, C.S. Prosser, W. H. Sherzer, and A. W. Grabau—Nomenclature and Subdivisions of the Upper Siluric Strata of Michigan, Ohio, and Western New York. (20 minutes.)
- 23. A. H. Purdue—Structure and Stratigraphy of the Ouachita Ordovician Area, Arkansas. (20 minutes.)



Descending Bright Angel Trail at the Grand Canyon of Arizona.

W. G. Miller, Ontario Provincial Geologist, and Mr. L. H.

Kerr, of Toronto, in background.