
Oct. 5.—Prof. Henry Carvill Lewis gave the results of his geological work in Europe during the last two summers, among which were the microscopic study of rocks at the University of Heidelberg, the examination of pre-Cambrian and metamorphic strata in Ireland, Wales, England, and elsewhere, and finally the examination of glacial phenomena in Great Britain. Professor Lewis had been long convinced of the essential identity of glacial action on both sides of the Atlantic, and he had been able to show that the glacial deposits of Great Britain and Ireland, like those of America, may be interpreted most satisfactorily by considering them with reference to a series of terminal moraines which both define confluent lobes of ice, and often mark the line separating the glaciad from the non-glaciad areas. After alluding to recent investigations of the subject in America, he stated that the ice-sheet which had covered the greater part of Ireland was composed of confluent glaciers, while distinct and local glacial systems occurred in the non-glaciad areas. The principal ice-sheet resembled that of America in having for its centre a great inland depression surrounded by a rim of mountains. There seems to have been here five centres of glaciation. No evidence of any great marine submergence was discovered. The Irish ice-sheet seems to have been joined at its north-western corner by ice coming from Scotland across the North Channel. A mass of Scotch ice, probably re-enforced by that of Ireland and England, filled the Irish Sea, over-riding the Isle of Man and Anglesea, and extending at least as far south as Bray Head, south of Dublin. Wales was found to have supported three distinct systems of glaciers, while its extreme northern border was touched by the ice-lobe of the Irish Sea. Where the ice-sheet abutted against Wales, it was about 1,950 feet in thickness; that of Pennsylvania being about 1,000 feet thick at its extreme edge, and 2,000 feet at points some eight miles back. The finest exhibition of a terminal moraine in England is in the vicinity of Ellesmere, in Shropshire. The drift is here heaped up into conical hills, which enclose 'kettle-holes and lakes' similar to those in Wisconsin. The broad level areas, wherever in Great Britain marine shells occur in glacial deposits at high levels, it was owing to the advance of the ice on the land from out of the sea, and was not, as heretofore held, an evidence of former submergence. It was believed that there had been only one advance of the ice-sheet, and not a series of advances and retreats, as held by some authors. The tendency of all modern investigation was to simplify the glacial problem. There had probably been an elevation of the land to the extent of perhaps five hundred feet, and a corresponding fall of temperature of maybe not more than 10° F. This state of things would, it was held, sufficiently account for all evidences of glacial action so far studied. —Professor Hollmyr endorsed the theory of the existence of local glaciers. He called attention to the fact that three years ago he had announced his opinion, that, on theoretical grounds, no such thing as a great general ice-sheet, moving down from the north pole, could have existed. He also exhibited a series of shells of the genus Fulgur, illustrating beautifully the derivation of one from the other. The extremes were connected by intermediate forms which left no doubt as to their common origin. —A paper was read from Mrs. Lillie E. Holman, giving an interesting account of the life-action of a couple of anoeae observed on a Holman life slide. The small one, having been apparently enveloped by the larger, as would be a foreign body secured for nutriment, was afterward released. It then threw out particles or granules, as if it were laying eggs, and subsequently became quiescent. Two days afterward the slide was found to be swarming with small anoeae where before but two had existed, leaving little doubt that the observation had resulted in the discovery of a new mode of multiplication of these organisms.

Calendar of Societies.

Society of arts, Boston.

Oct. 14.—H. M. Howe, Steel for warfare.

Philosophical society, Washington.


American academy of arts and sciences, Boston.


Appalachian mountain club, Boston.

Oct. 13.—Verplank Colvin, General geology of the Adirondacks; Rosewell B. Lawrence, Ascents of the Camel's Bump and some of the Rangeley Lake mountains.

Publications received at Editor's Office, Oct. 4-9.


Michigan state board of fish commissioners, sixth biennial report of, for 1883-84. Lansing, State, 1885. 70 p. 8°.

—Questions and answers, relative to German carp and carp culture. (Supplement to biennial report of 1883-84.) Lansing, State, 1886. 22 p. illustr. 8°.


Advertised Books of Reference.

SCRIIBNER'S STATISTICAL ATLAS OF THE UNITED STATES: Showing by Graphic Methods their Present Condition, and their Political, Social, and Industrial Development, as Determined by the Reports of the Tenth Census, the Bureau of Statistics, the Commissioner of Education, State Officials, and other Authoritative Sources. 120 Pages Text, 151 plates (72 double), 275 Maps (29 folio). 96 Charts and Diagrams. Sold only by Subscription. Descriptive circular sent on application. Charles Scribner's Sons, Publ., 743 and 745 Broadway, New York.
INSTRUCTION FOR THE DETERMINATION OF ROCK-FORMING MINERALS. By Dr. Eugen Husak, Privat Dozent in the University of Graz. Translated from the German by Erastus G. Smith, Professor of Chemistry and Mineralogy, Beloit College. With 109 plates, 8vo, cloth. $3.00. John Wiley & Sons, Pubs., Astor Place, New York.


ANNALS OF MATHEMATICS. Edited by Ormond Stone and William M. Thornton. Office of Publication: University of Virginia. $2 per vol. of 6 nos.


MAMMALS OF THE ADIRONDACKS. By Dr. C. Hart Merriam. Contains an introductory chapter treating of the location and boundaries of the region, its geographical history, topography, climate, general features, botany, and faunal position. This work consists, in the first place, of a general account of the prominent features of the Adirondack region; and, secondly, of a popular narrative of the habits of the animals found within its confines. Imp. 8vo. $3.50. Henry Holt & Co., New York.

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