

of the mines and the works, and with a suite of specimens. Professor Kemp referred particularly to the extremely interesting crystals of almandite garnet which he showed, in which the faces of the hexactahedron are strikingly developed, giving 48-sided forms, sometimes with small faces of the rhombic dodecahedron in addition. Zaisite also occurs in fine terminated crystals, and limonite of remarkable iridescence.

The second paper was by Dr. Arthur Hollick—Notes on the Glacial Phenomena of Staten Island—and embodied the general results of several years of study and exploration by himself and others. He outlined the topography of the island and the distribution of drift material upon it, and described the transported contents of the drift with relation to their sources. Most of the drift material is made up of the triassic sandstone and shale of the adjacent mainland, ground up by the ice sheet, but the boulders are largely brought from afar. They comprise material from all the fossiliferous beds of central New York, from the Potsdam to the Hamilton; but there is a great preponderance of Lower Helderberg and Schoharie grit. The fossils are in many cases finely preserved, have been collected in large quantities, and very carefully studied and determined. The question as to the route by which they have come, over the hilly and almost mountainous regions lying between their source and their resting place, is one of much interest.

The next paper was by Mr. Francis C. Nicholas—on the Sedimentary Formations of Northern South America—and dealt with a large area of little-explored country between the Caribbean coast and the northern Andes. It was illustrated by a most extensive and carefully labeled series of rocks, ores and minerals from many localities and horizons, to which it was impossible to do justice within the limits of the evening. Among many interesting points described and illustrated with specimens was the agency of the sun's heat as a rock-disintegrator, the changes of day and night temperature in high regions in the tropics producing a fracturing of the superficial portions of exposed rocks comparable in result to the action of frost in higher latitudes.

The last paper was by Mr. Geo. F. Kunz, upon a Meteoric Stone that fell at Andover, Maine, on August 5th last, with exhibition of the stone, or rather about half of it. The fall took place early in the morning of a cloudy and threatening day; so that the sound made by the meteor, which was heard for many miles around, was generally supposed to be thunder. A dark cloudy trail, like a dense smoke, followed and marked the path of the body through the air. Its course was from the north, southward, and in coming down it tore its way through a group of large trees, struck a heavy stone in a wall near the ground, and buried itself in the earth. Here it was found two days later, by that time entirely cooled. The specimen is a typical stony meteorite, with a thin black crust on the outside, and of a bright pale gray on the broken surface, with very little iron. It weighs about 7 lbs., and its description will appear later.

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Truth and Error. J. W. POWELL. Chicago, The Open Court Publishing Company. 1898. Pp. 428. \$1.75.

Symbotæ Antillanæ seu fundamenta Floræ Indæ Occidentalis. IGNATIUS URBAN. Berlin, Borntraeger. 1898. Vol. I. Part I. Pp. 192. M. 10. 80 Pf.

Deutscher Botaniker Kalender für 1899. P. SYDOW. Berlin, Borntraeger. 1898. Pp. 198. M. 3.

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Traité élémentaire de mécanique chimique fondée sur la thermodynamique. P. DUHEM. Paris, A. Hermann. 1898. Vol. III. Pp. 380. 10 fr.

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