

to ascertain the magnitude of the particles and the relative proportions of the different grades in terms of this scale. "Down to the particles measuring one-eighth of a millimeter all the separations were made by sieves, and below this the per cent of the weight of each grade was determined by microscopic measurements and by calculation from the number of grains counted in each grade" (page 6). Acknowledgment is made to Professor Milton Whitney for information concerning the mechanical analyses in the United States Department of Agriculture. The deposits examined include drifting sand, both rolled and dune, from Illinois, Indiana, Kansas, Nebraska, North Dakota and Massachusetts; and lee sand from Illinois, Kansas and North Dakota. In addition, special attention was given to atmospheric dust, formed and carried under various conditions, which was collected by ingenious devices. In the final pages the author discusses the principles of what may be called eolation, *i. e.*, eolic erosion (the deflation of Walther) and eolic deposition, and he refers to the bearing of the researches on the problem of the loess, though wisely withholds final judgment concerning the solution of the problem. The memoir carries inherent evidence of patient and painstaking labor; and, since the labor extended into a little-wrought but important field, it must take rank as a notable contribution to geology.

W J M.

SCIENTIFIC JOURNALS.

THE *American Journal of Science* for November contains the following articles:

'Another Episode in the History of Niagara Falls:' By J. W. Spencer. 'Apparatus for Measuring very High Pressures:' By A. deF. Palmer, Jr. 'Application of Iodine in the Analysis of Alkalies and Acids:' By C. F. Walker and David H. M. Gillespie. 'Associated Minerals of Rhodolite:' By W. E. Hinden and J. H. Pratt. 'Revision of the Moraines of Minnesota:' By J. E. Todd. 'Preliminary Report on some new marine Tertiary horizons discovered by Mr. J. B. Hatcher near Punta Arenas, Magellanes, Chile:' By A. E. Ortmann. 'Comparative Value of Different Kinds of Fossils in Determining Geological Age:' By O. C. Marsh. 'Families of *Sauropodus* and *Inosauria*:' By O. C. Marsh. 'Biotite-tungstate Dike from Manchester by the Sea, Essex

County, Mass.:' By A. S. Eakle. 'Descriptions of new American Actinians with critical notes on other species, I.:' By A. E. Verrill.

THE *Journal of Comparative Neurology*, published quarterly at Granville, Ohio, and edited by President C. L. Herrick, Dr. O. S. Strong and Dr. C. Judson Herrick, has added to its collaborators Professor C. F. Hodge, of Clark University (Neurocytology, especially functional changes in nerve cells); Dr. G. H. Parker, Harvard University (The sense organs and nervous system of the invertebrates), and Professor A. D. Morrill, Hamilton College (The sense-organs of the vertebrates).

THE *Educational Review* for November opens with an article on the 'Status of the American Professor,' by 'One of Them.' The author urges that the American professor, with the exception of those in several of our larger universities, lacks a proper income, proper authority and proper leisure. Especial attention is called to the unfortunate fact that a college instructor can often only secure the advancement that is his due by securing a call from another university. The author might have added that the conditions are peculiarly bad in America, where an offer from a university is usually given privately and sometimes confidentially. In Germany a vacant position is usually offered to the man who is thought to be the best and who at the time holds a position that is considered less desirable, without regard to whether he is likely to accept or not. The German professors and docents have thus in their own subjects a rank depending on their reputation and efficiency, which is tolerably well known to the authorities of all the universities.

SOCIETIES AND ACADEMIES.

SECTION OF GEOLOGY AND MINERALOGY OF THE
NEW YORK ACADEMY OF SCIENCES,

OCTOBER 17, 1898.

THE first paper, by Professor J. F. Kemp, on the Minerals of the Copper Mines at Ducktown, Tenn., gave a brief history of the mines and described some of the processes employed in treating the ores, and the character of the rocks and associated minerals. The paper was illustrated with an extended series of lantern views