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*An Introduction to Chemical Theory.* By ALEXANDER SCOTT. London and Edinburgh, Adam & Charles Black. 8°. 274 p. \$1.25.

THIS volume presents modern views and much valuable information upon the constitution of matter, atomic and molecular weights, classification of elements and compounds, vapor densities, and other physical properties, thermo-chemistry, chemical change, solution, and electrolysis. It claims to be an *introduction* only, although a fair knowledge of chemical facts and experiments is assumed; and it would be unreasonable to expect such completeness as in the works of Ostwald, Meyer, and Naumann. It may prove attractive to many who would be repelled by the more comprehensive works; or, better still, it may awaken a thirst for such exactness of scientific statement as requires more mathematics than Dr. Scott admits into his elementary volume.

#### AMONG THE PUBLISHERS.

"THE Eighteenth Report of the Geological Survey of Indiana: Palæontology," by S. A. Miller, contains descriptions of a large number of new fossils from various formations, mainly of Upper Silurian and Sub-Carboniferous age. Crinoidea largely predominate, no less than 39 new species and 4 new genera being described. It is unfortunate that some of the species are described from single specimens. All are, however, illustrated. Mr. Miller

pays his compliments in his usual way to Professor James Hall and Professor Hyatt. Some of the new species are from the Cincinnati, or Hudson River, group of south-eastern Indiana.

— *St. Nicholas* is universally considered "the best of children's magazines." Contributors for 1893 include John G. Whittier, Edmund C. Stedman, Frank R. Stockton, George W. Cable, Frances Hodgson Burnett, Thos. Wentworth Higginson, George Kennan, Charles Howard Shinn, Laura E. Richards, W. O. Stoddard, Harriet Prescott Spofford, Susan Coolidge, Mary Hallock Foote, Kirk Munroe, Hezekiah Butterworth, President Gilman, Rev. Dr. Lyman Abbott, Howard Pyle, Colonel R. M. Johnston, John Burroughs, H. H. Boyesen, Nora Perry, Poultney Bigelow, Charles F. Lummis, Edith M. Thomas, Kate Douglas Wiggin, and Mary Mapes Dodge.

— Following the principles announced by Teisserenc de Bort, G. Raymond has prepared a little brochure (Paris, Gauthier-Villars) concerning the influence of the chief centres of atmospheric pressure on the prediction of the weather. De Bort laid down his general plan some years ago, and Raymond now presents a number of specific examples that seem to follow in accordance with it; illustrating the conditions for mild winters, moist summers, and so on. The book deserves study by those who have access to our International weather bulletins, and who can undertake the difficult task of generalizing their innumerable facts.

— Henry Collins has written an interesting little pamphlet on "The International Date Line" (Bardeen, Syracuse, 15 cents), giving a chart of the line that runs irregularly through the Pacific, and on either side of which the dates differ by a day. Teachers will find it instructive; although a few matters of fact might have been more fully ascertained before publication, as by correspondence with consuls. The interesting point is raised: Who first celebrate the New Year? It is clearly shown that the 180° meridian from Greenwich has not the importance often given it in the matter of changing dates.

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