Radio-activity. By E. Rutherford, D.Sc., F.R.S., etc. Second edition, 1905. Cambridge, The University Press; New York, The Macmillan Co. Cambridge Physical Series. Edited by F. H. Neville, F.R.S., etc., and W. C. D. Whetham, F.R.S., etc. 8vo. Pp. xiv + 580. Price $4.00.

It is but a short time ago since the first edition of this work (1904) was reviewed at length in these columns. The rapid appearance of a second edition is characteristic of the energy of the author; but it also bespeaks the intense interest which the subject has aroused and the adequacy with which the demand has been met by Mr. Rutherford. The new treatise gives evidence of the same skilful presentation and arrangement as the old, though there has been expansion in bulk from 389 to 580 pages. Among the more conspicuous novelties are the chapters on the transformation products of uranium, thorium, actinium, radium and on the rate of emission of energy. In other chapters the recent growth of our knowledge of the alpha rays is noteworthy. The book is provided with an excellent index.

The present very carefully edited work of Professor Rutherford, together with the two ponderous volumes of original papers just issued on behalf of the French Physical Society by MM. H. Abraham and P. Langevin, not to mention other sources, places the whole domain of radio-activity within easy reach of the student. All this information is virtually given at first hand. What remains to test his endurance is the ever-growing mass of research with which the subject is barricading itself, and the increasing difficulties of treatment.

C. Barus.

SCIENTIFIC JOURNALS AND ARTICLES.

The American Naturalist for January is an unusually interesting number, being devoted to live, or living, subjects. The first article on 'Flying-fish Flight, and an Unfixed Law of Nature,' by C. D. Durnford, brings forward evidence to support the views of those who believe that the flight of this fish is active and not purely a sail. It may be said that this view is held by many good observers and that additional testimony may be found in *Forest and Stream* for January 27. G. H. Parker discusses 'Double Hen's Eggs,' concluding that they are due to the retention of an egg in the oviduct and its surrounding by a second. W. A. Cannon treats of the 'Biological Relations of Certain Cacti,' including their root structure and adaptations for the absorption and storage of water. H. Drexler and L. Freund present some welcome 'Contributions to [our knowledge of] the Physiology and Biology of the Dugong,' a common but little-known animal. There is a notice of a congress of oceanography to be held this year at Marseilles.

The Journal of Comparative Neurology and Psychology for January contains an article of 109 pages, with 16 plates, on 'The Structure of the Teleostean and Selachian Brain,' by Dr. C. U. Ariens Kappers, of Amsterdam, comprising as complete a description of the microscopic anatomy of these brains as could be made from Weigert sections, together with full digests of all important literature. Such a comprehensive study has long been needed and will probably serve as the point of departure for more special studies in the neurology of fishes for a long time.

Popular Science Monthly for February contains the following articles:

Charles Keyser Edmunds: 'The Passing of China's Ancient System of Literary Examinations.'

Joseph Jastrow: 'The Lapses of Speech.'

Edwin W. Bowen: 'What is Slang?'

S. Tetsu Tamura: 'Recent Advances in Meteorology and Meteorological Service in Japan.'

Ernest W. Brown: 'With the British Associatio in South Africa.'

C. A. Miller: 'Some Recent Tendencies in Mathematical Instruction.'

A. C. Lane: 'The Wealth of the Commonwealth, its Consumption and Conservation.'

W. Le Conte Stevens: 'The Honor System in American Colleges.'

The Bulletin of the South Carolina College for January, the most recent addition to museum publications, deals with the rehabilitation of the museum of that institution and includes articles on various branches of mu-