beginners. A student with some knowledge of organic chemistry could use it as a text-book if it were possible for him to resolutely confine his attention to the 'coarse print.' But it is as a reference book for the student who wishes to refresh his memory not merely of one compound, but of the complete chemistry of a group of compounds, that the work is of peculiar value, and may be cordially recommended.

EDWARD RENOUF.

Optical Activity and Chemical Composition. By DR. H. LANDOLT, Professor of Chemistry in the University of Berlin. Translated, with the author's permission, by JOHN MCCRAE, Ph.D. Whittaker and Co., London, and the Macmillan Co., 66 Fifth Ave., New York. 1899. Small 8vo. Pp. 158. Price, $1.00.

This little book forms a translation of the eighth chapter of the first volume of Graham-Otto's 'Lehrbuch der Chemie' and is a smaller and condensed edition of the author's well-known 'Das optische Drehungsvermögen organischer Substanzen und dessen praktische Anwendungen,' published in 1898. The subject is treated under three heads: I. General Principles of Optical Activity; II. Connection between the Rotatory Power and the Chemical Composition of Carbon Compounds, and III. Connection between Degree of Rotation and Chemical Constitution. Under the first head are discussed such subjects as crystal rotation, liquid rotation, molecular rotation, measurement of rotation, specific rotation, variations of specific rotation with concentration and change of rotatory power of dissolved substances with time, multirotation. Under the second head are treated optical modifications, the investigations of Pasteur, the van't Hoff and Le Bel theory, calculation of the number of optically active isomers of a compound from the number of asymmetric carbon atoms which it contains, the formation and properties of racemic compounds, resolution of racemic substances into the antipodes, formation and properties of the active modifications, transformation of one antipode into the other, the configurationally inactive non-decomposable modifications and their differences from racemic inactive isomers. Under the third head are taken up isomeric compounds, including stereoisomers, homologous series, influence of the mode of linkage of the carbon atoms, summation of the rotatory actions of several asymmetric groups, optical superposition and the dependence of the rotatory power of an active atomic grouping on the masses of the four radicles united to the asymmetric carbon atom, the hypothesis of Guye.

The translation is well done and the subject is brought up to date by notes and additions by the translator. The subject is presented in a very attractive and readable form and the book can be heartily recommended to anyone, who desires to know the present state of our knowledge regarding the relation existing between optical activity and chemical composition; though for more detailed information Landolt's 'Das optische Drehungsvermögen organischer Substanzen und dessen praktische Anwendungen' must be used.

W. R. ORNDORFF.

SCIENTIFIC JOURNALS AND ARTICLES.

THE *Osprey* for April, a little belated, opens with the fourth part of 'Birds of the Road,' by Paul Bartsch. Wm. L. Wells describes the 'Nesting of some Rare Birds,' including the yellow rail and solitary sandpiper, and Theodore Gill presents the second part of 'William Swainson and his Times' which carries Swainson through his journey to Brazil. In editorial comments under 'Birds and Women' the situation is summed up in a few words "If the demand exists for anything, that demand will be supplied if it can be done with a profit." Under Notes is to be found an extraordinary account of 'How Two Lions stopped an African Railroad,' and other matters of interest.

A Bulletin of Mathematics and of the Physical and Natural Sciences, to be published semi-monthly in the interest of teachers in Italian schools, has been established by Professor Alberto Conti, of Bologne.

SOCIETIES AND ACADEMIES.

GEOLOGICAL SOCIETY OF WASHINGTON.

THE 101st meeting of the Society was held at the Cosmos Club April 11, 1900.