

the outline of the Darwinian theory is an exceptionally good one. Certain it is that nothing in our literature at the present time will give such a terse, clear presentation of the Darwinian hypothesis with the arguments in its favor, and of the additions which have been made to this hypothesis subsequent to the writings of Darwin himself.

These two books are, then, designed for popular reading. They are perhaps as good an illustration of the especial character of Prof. Marshall's power in teaching as could be found. They are valuable additions to that class of books in which the English language is beginning to abound, viz., popular scientific writings that actually *teach science*.

H. W. CONN.

WESLEYAN UNIVERSITY.

Elements of Astronomy.—By GEORGE W. PARKER, of Trinity College, Dublin. Longmans, Green & Co., London and New York. 8vo., 236 pages. \$1.75.

The book is designed as a connecting link between the elementary school-astronomies and the higher treatises used as text-books in the universities. It treats the subject almost exclusively from the geometrical point of view, breaking up the matter into propositions, corollaries and problems, arranged in an order which is probably logical enough in its mathematical sequence, but strikes one as rather peculiar. The book will be found useful by teachers who have 'examination papers' to draw up, since it presents a large number of them, as well as numerous 'exercises' and problems well suited to test a student's understanding of the subject-matter.

What the book professes to do is in the main very well done. The statements and definitions are intelligible and correct, and the reasoning is generally clear and logical. The writer's description of the instruments and methods of practical astronomy make

it evident, however, that he has had very little actual experience in that sort of work. It reads rather strangely, for instance, to be told that the way to find the value of a micrometer-screw revolution is to 'note how many turns correspond to the sun's diameter.'

Regarded as an elementary presentation of 'Astronomy' taken as a whole, the book must be pronounced extremely one-sided and defective. Astrophysics is most inadequately dealt with; the whole subject of spectroscopy is dismissed with six pages and a single old diagram of the dispersion of light by a prism; and all physical matters relating to sun, planets, comets, stars and nebulae are treated on the same general scale.

C. A. Y.

Qualitative Chemical Analysis of Inorganic Substances.—As practiced in Georgetown College, D. C. American Book Co., New York. 1894.

Rev. H. T. B. Tarr, S. J., formerly professor of chemistry in Georgetown College, prepared a series of tables for analytical purposes, which have been wholly recast and incorporated into the work now before us. The present editor, Rev. T. W. Fox, S. J., speaks of the book as being 'useful in a course such as is given at Georgetown and in similar institutions throughout the country.'

The 'grouping of the bases' is that generally adopted by writers on qualitative analysis the world over. We believe, however, that it would have been wiser and better for the student had the author divided his third group, consisting of the metals precipitated by ammonium sulphide from neutral or alkaline solutions, into two groups. But this is merely a matter of opinion.

We observe that the properties of the metals are first studied, after which the author draws up a table for the analysis of