bility. The book will naturally be placed in the hands of comparatively young chemists. No device tending to bring out and emphasize the peculiar relations of the asymmetric carbon atom, should be neglected, at least in the early chapters. The use of a one-line formula, such as $CO_2HCHOHCH_2CO_2H$, while amply sufficient for the more advanced student, is to be deprecated at the beginning of the book. The additional space required for more ample graphic formulas, would be advantageously used from the standpoint of the teacher.

The chapter on the stereochemistry of nitrogen compounds is comparatively brief, as van 't Hoff's interest in this branch is less pronounced. The most recent results are, however, carefully summarized.

An appendix contains a note by Professor Werner on the stereochemical isomerism of inorganic compounds, confined, of course, to the amines of cobalt and platinum.

Dr. Eiloart has furnished an excellent translation and added in a few instances pertinent notes, introducing the results of recent investigations. It is a question whether the use of *right-handed* and *left-handed* for *dextro-rotatory*, etc., is to be recommended. A simpler expression for the Latin derivatives is undoubtedly desirable; but the introduction of the word *hand* recalls the Greek idiom, "bare-headed as to the feet," and certainly does not simplify the nomenclature.

Typographical errors are rare, but occasionally meet the eye, as in the formulas of malic and lactic acids, pages 29 and 163.

THOMAS H. NORTON.

BIBLIOGRAPHY OF THE PLATINUM GROUP, 1748–1896. By JAMES LEWIS HOWE. Smithsonian Miscellaneous Collections, No. 1084. 8vo. pp. 318.

This forms a very valuable contribution to chemical bibliography, and will prove an indispensable aid to all workers in the field of the platinum metals. A glance at this volume is sufficient to show the great amount of labor expended upon it by Dr. Howe, and a closer examination will prove how faithfully and conscientiously the work has been done. Over one hundred sets of journals were consulted in its preparation, besides a large number of books, pamphlets, and single copies of periodicals. The total references number nearly 2500. They are first

arranged by years with the name of the author, followed by the title of the paper. Instead of a continuous consecutive numbering, however, the numbering is broken by each year and is consecutive for that year only. Nearly fifty pages are filled with a subject index in which the references are divided under sixty-six different headings. This makes the book particularly useful to a worker in any special field. An author index, filling some fifteen double-columned pages, completes the book.

Chemists owe a debt of gratitude to Dr. Howe for this tedious yet most helpful work, which he has so ably completed, and to the Smithsonian Institution for rendering its publication possible.

F. P. VENABLE.

THE CALORIFIC POWER OF FUELS. Founded on Scheurer-Kestner's Pouvoir Calorifique des Combustibles, with the addition of a very full collection of tables of heats of combustion of fuels, solid, liquid, and gaseous, to which is also appended the report of the committee on boiler tests of the American Society of Mechanical Engineers (December, 1897); table of constants used. By HERMAN POOLE, F.C.S. New York: John Wiley & Sons. 1898. xv + 255 pp. Price, $3.00.

The general character of the book is pretty well indicated by the somewhat lengthy title. The first six chapters of the book are given, mainly, to a description of the various forms of calorimeters in common use for the determination of the heating power of fuels. The descriptions are satisfactory and include brief directions for the use of the more important forms of apparatus and an account of the corrections to be applied. Chapters VII to IX discuss solid, liquid and gaseous fuels chiefly from the standpoint of heating effect. Then follow three chapters devoted to the subject of boiler tests and the necessary determinations and calculations, especially those relating to loss of heat in waste gases. The Appendix includes the report of the committee on boiler tests referred to in the title, and very full tables, especially of the heating power of coals from all parts of the world. Unfortunately these tables, which the author appears to consider especially valuable, contain internal evidence that some of the values given are worthless. Thus, on page 216, three determinations for the same coal are given, with a difference of twenty-five per cent. between the highest and lowest values. Also, although most of the values are on the basis of