

elegant of all, the reaction between water and sodium peroxide, now employed in every laboratory and lecture-room. No mention is to be found of red fuming nitric acid.

The date of 1876 for Moissan's discovery of free fluorine is probably a typographical error. T. H. NORTON.

DIE MASCHINELLEN HILFSMITTEL DER CHEMISCHEN TECHNIK. VON Alwin Parnicke. pp. 320. 327 Illustrations. H. Bechhold, Frankfurt, A. M. 1894.

The lack of a good manual on the methods used for the mechanical preparation of substances used in the chemical industries to which Mr. Pemberton has already called attention in these columns, (see this JOURNAL, 1893, p. 634) is supplied in the excellent digest of the subject contained in this book. The sections into which the book is divided may be translated as follows: 1. Sources of Power. 2. Transmission of Power. 3. Methods of Transportation. 4. Grinding. 5. Mixing. 6. Melting, Dissolving, and Extraction. 7. Concentration. 8. Mechanical Separation. 9. Drying. 10. Weighing, Determination of Temperature, Pressure, and Draught. 11. Laws Relating to the Subject.

The book is well printed and the illustrations are excellent, an important matter in such a book. It is to be hoped the book may find a translator who will condense it sufficiently for class use. E. H.

THE ELEMENTARY NATURE OF CHLORINE. BY HUMPHRY DAVY, SEC. R. S., 1809-1818. PAPERS PUBLISHED IN THE PHILOSOPHICAL TRANSACTIONS. ALEMBIC CLUB REPRINTS, No. 9. 80 pp. Edinburgh: William F. Clay. 1894.

This reprint is no less interesting than its predecessors. The first three papers give the results of experiments made to determine the properties and composition of "muriatic acid." In the remaining six papers Davy describes a few experiments by other chemists and many of his own upon "oxymuriatic acid," discusses them and, without asserting that this gas is an element, suggests that it be called chlorine, on account of its color and because it "is not known to contain oxygen and can not contain muriatic acid." A short account of the discovery and properties of "Euchlorine" is found in one of the papers.

L. B. HALL.