

PURE AIR, OZONE AND WATER. A practical treatise of their utilization and value in oil, grease, soap, paint, glue, and other industries. By W. B. COWELL. London: Scott, Greenwood & Co.; New York: D. Van Nostrand Co. 1900. vii + 85 pp. Price, \$2.00.

This is a small volume of 85 pages, and has to do with the applications of pure air, ozone, and water in industrial works. The author describes briefly the various uses to which air, ozone, and water may be put in technical works to aid in manufacturing processes, purifications, etc.

It is a practical book from the ordinary manufacturer's standpoint and is almost free from technicalities, but for the scientific man who is at all familiar with the methods used and principles involved in technical industries there is little new. One chapter takes up the purification of water and its uses for boiler purposes, all of which may be found in a dozen or more books.

There is an appendix which contains considerable valuable information, giving tables of temperatures, solubilities, properties of steam, and rules for measurements.

The book is well printed in large type on good paper.

W. B. BROWN.

EXPERIMENTS ARRANGED FOR STUDENTS IN GENERAL CHEMISTRY. BY EDGAR F. SMITH AND HARRY F. KELLER. Fourth edition, enlarged. 88 pp., interleaved. Philadelphia: P. Blakiston's Son & Co. 1900. Price, 60 cents.

The earlier editions of this book are already familiar to many teachers, and have been characterized by the good judgment shown in the selection of experiments and the clearness of the directions given to the student. The suggestive questions on the experiments and the problems in chemical arithmetic are also to be commended.

This edition brings the book more into line with the newer ideas in teaching chemistry, by the addition of quite a number of new experiments, but this is not done at the expense of those experiments which illustrate descriptive chemistry. Judging by recent books, there seems to be a tendency to-day to neglect all of chemistry which cannot be treated quantitatively. The authors have preserved a good balance in this respect, giving a fair number of quantitative experiments, such as the determinations of the weight of a liter of chlorine, oxygen, steam, nitrogen, and ammonia; the volumetric composition of water, and of hydrochloric