and is greatly enlarged both in its general scope and the scientific data presented.

The first fifty pages are devoted to the manufacture of cane sugar from the sugar-cane, which is given in compact form, covering the methods generally used, also appearing for the first time in an English publication combined with the chemical control of sugar houses. This brief treatise is very complete and reliable, covering both general and special methods.

Article No. 31, on the composition of sugar-cane molasses, by Dr. C. A. Browne, Jr., chemist of the Louisiana Sugar Experiment Station, Audubon Park, New Orleans, La., is a very clever and useful treatment of this subject, and the most complete report on this subject published in technical form.

The properties of the sugar in the cane, and methods of analysis, are concisely given and in addition the general analytical work on sugar estates is included.

The remarks on the control of the sugar house work are given very fully and many valuable suggestions as to the scope of the chemist's work are clearly brought out.

The concluding chapters refer to analyses and examinations of materials used in sugar manufacture and in the sugar house, with a collection of useful reference tables, and the properties of the carbohydrates completing the volume.

The edition is a marked improvement over former editions of this work (which were highly appreciated by sugar house chemists and manufacturers) and the author has carefully kept pace with the advancements in this line.

Those desiring a concise and ready reference treatise on the manufacture of sugar and the chemical control of sugar houses will find this work worthy of careful attention.

R. E. BLOUIN.

JAHRBUCH DES VEREINS DER SPIRITUS-FABRIKANTEN IN DEUTSCHLAND. Sechster band, von DR. G. HEINZELMANN. xiii + 499 pp. Berlin: Paul Parey, 1906.

The annual report of the Society for the Manufacture of Alcohol in Germany comes at a very opportune moment. The people of this country are much interested at the present time in the subject of free alcohol in the arts, and there is a woful lack of technical knowledge among our people respecting both the raw materials from which alcohol may be made, and the methods of making

it. The report is prefaced by a discussion of its chief characteristics by the editor, Dr. Delbrück, of the German Brewing School of Berlin. The chemical and technical part consists of a discussion of the improvements in saccharimetric measurements; of the determination of sulphur in fuels; of the uses of ether and alcohol mixtures for illumination; the corrosion of metals by denatured alcohol; the ash content of yeasts; the improvement of the taste of lager beer distillates; various improvements in analytical processes relating to distillation; the manufacture of vinegar; and the manufacture of starch from different substances.

A special chapter is devoted to the methods of determining nitrogen and their application in the estimation of the albumen content of barley, the protein content of the harvest of 1905 and the relations existing between the protein content of barley and the general extract thereof. An interesting chapter also is that relating to the drying of potatoes for technical purposes.

The report also contains the Proceedings of the Fifty-fourth annual meeting of the Society. Reference is made to the celebration of Dr. Kühn's eightieth birthday, and to the unveiling of the Maercker monument. The appendix gives statistics pertaining to the production of spirits for the year ended September 30, 1905.

There is no space here to mention all the interesting topics in this volume. It is to be commended to all those chemists who are taking particular interest in the problem of denatured alcohol in the arts and allied problems.

H. W. WILEY.

RECENT PUBLICATIONS.

CHEMISTRY OF THE MATERIALS OF ENGINEERING. By A. Humboldt Lexton. Revised and enlarged edition. London: Technical Pub. Co. 1906. 348 pp. 5/.

PRACTICE OF PHARMACY. By J. B. Remington. London: Lippincott. 1906. 1504 pp. 25/.

ÜBER DIE BEDEUTUNG DER ELEKTRONONTHEORIE FÜR DIE CHEMIE. By Otto Sakur. Halle: W. Knapp. 1905. 21 pp. Mark 1.-

TRAITÉ DE CHIMIE MINÉRALE. By H. Moissan. Vol. 5. Paris: Masson et Cie. 12+972+88 pp. 34 fr.

DIE BEZIEHUNG ZWISCHEN FLUORESZENZ UND CHEMISCHER KONSTRUKTION. By Hugo Kauffmann. Stuttgart: F. Enke. 1906. 102 pp. Marks 2.40