done, in part, by presenting in writing to the Director of the Bureau arguments in favor of coöperation, especially when strengthened by a clear statement of specific problems whose settlement may have commercial importance.

- (4) To prepare samples of materials of different character whose exact composition shall have been determined by the most careful analyses of experts.
- (5) To place such samples in the care of the National Bureau of Standards for preservation and distribution to persons desiring to test their methods of analysis or of manipulation, or to check the work of students or technical chemists employed in works.
- (6) To invite the coöperation of persons interested in the analysis of any particular class of material, by the organization of sub-committees for the preparation and distribution of samples, the chairman of which shall be, for the time being, a member of the general committee and entitled to vote on the subject which his sub-committee has under consideration.

It will not be the policy of this Committee to commit the Society as a body to the endorsement of any methods as standard, but merely to recommend such as may be found satisfactory. Nor will the Committee intrude on fields of work that may be already well covered by existing organizations, such as the Society of Official Agricultural Chemists.

Suggestions as to modifications of the policy of the Committee, or criticisms of it, will be thankfully received.

W. F. HILLEBRAND, Chairman, Chas. B. Dudley, H. N. Stokes, Clifford Richardson, Secretary.

NEW BOOKS.

The Industrial and Artistic Technology of Paint and Varnish. By Alvah Horton Sabin, Chemist for Edward Smith & Co. New York: John Wiley & Sons. First edition. 1904. Octavo. vi + 372 pp. Price, \$3.00.

Prof. Sabin has brought together widely scattered notes and references to the early history of the linseed oil and varnish industry, which are not accessible to the general reader, together

with his own experience in the methods used in the manufacture of varnish and paint at the present time.

The book is of much interest to those desiring general information on the principles of varnish-making, treatment of linseed oil, protection of metal surfaces against corrosion, result of exposure tests of different coatings in salt and fresh water, and similar questions.

The chapter on Chinese and Japanese lacquers probably gives the most reliable data on this little-known subject. The compilation of early references to paint and varnish shows a very thorough research of classic literature and is of bibliographical interest to the artist and the manufacturer.

Chemists who have not seen Dr. Parker C. McIlhiney's original report on boiled linseed oil will welcome its appearance in Prof. Sabin's book. The part of Dr. McIlhiney's paper on bromine absorption should, however, be supplemented by the more recent investigation of Tolman and Munson on this subject.

The chapter on japans and driers gives important information regarding methods of manufacture and effect of these little-known compounds, and will aid the analyst by guiding him along certain lines of investigation.

The theory of baked japan and varnish and its application to metal protection is of interest to the engineer, as is also the vital necessity of thoroughly cleaning all metal surfaces before the coating is applied.

Though the author states it would be useless to give schemes for chemical analysis, due to changes in methods of manufacture and lack of chemical knowledge along the requisite lines, it is to be regretted that Prof. Sabin, with his wide experience as a chemist and manufacturer, has not given more information regarding the constitution and constants of the resin gums, and the changes which occur in the varnish pot.

This is the line of investigation which is of especial interest to the technical chemist, and one which has been given but limited space in chemical literature.

The book is very readable, is clear and concise, with evidence of the author's dry lummor and pleasant personality, and is very free from typographical errors.

S. S. Voorhees.