

The direction of plus-A summary of achievement

<u>Precision</u> engineering research is responsible for uncompromising improvement . . . that every laboratory may have the benefit of even the most recent development.

A glance at the two illustrations above will readily reveal the caliber of engineering advancement responsible for the leadership of Precision-Freas constant temperature equipment. The streamlined mechanical convection oven on the right is a great improvement over its gravity convection predecessor.

As no improvement is ever accepted as final, as no design is ever taken as the last word, persistent engineering advancement and uncompromising improvement is the rule as we endlessly progress in the direction of plus.

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New Books

COMMODITY EXCHANGES AND FUTURES TRADING (PRINCIPLES AND OPERATING METHODS), Julius B. Baer and Olin Glenn Saxon. (Harper and Brothers, New York City, 1949, pp. XII + 324, price \$5). This book is an elaboration of an earlier volume "Commodity Exchanges" by the senior author. In the words of the authors its purpose is "... to supply a simple, clear analysis of the economic functions, the methods of operation, the trading practices, and the regulation of these Exchanges by the Exchanges themselves and by the federal government. The objective of the authors has been to produce a book which will be useful to students in college courses on marketing and at the same time meet the needs of the ever-growing users of the Exchanges -the producers, merchants, brokers, dealers, commission agents, converters, farm cooperatives, and traders. . . Since it is written by a lawyer and an economist, it should probably receive a review from a member of one of these professions. Inasmuch as the majority of the readers of this Journal are not interested in these aspects, this reviewer has attempted to describe what the average technically-trained man may expect to get from the book.

The 16 chapters cover the subject from the historical development to the law of commodity exchanges. Economic functions, speculation as an economic activity, grading standardization and inspection, statistical reports, and commodities adaptable to future trading are all discussed in chapters which may be viewed as an introduction to the most interesting and valuable section of the book. These early chapters may have a special interest to the student but need only be surveyed by the reader wishing the detailed information available in the main section of the book.

Chapters on the futures or exchange contract, organization and operation of a commodity exchange, the clearing house, a typical transaction on the exchange, hedging, and hedging-in-practice form a valuable and authoritative source of information for the technical man or the user of the Exchanges. None of these chapters is easy reading, and in many instances the language used is reminiscent of legal documents. Three of the six chapters have short summaries to help the reader. The facts are presented, and detailed examples of hedging are given from the cotton trade. The use of hedging in many other trades is described but only one short paragraph (p. 268) is devoted to cottonseed oil, and no mention is made of soybeans. It is clearly developed that hedging is not necessarily complete price insurance but ". . . if it is originally undertaken with discretion and judgment, the speculative risk is minimized."

The last four chapters cover the legal aspects and treat of the Commodity Exchange Act, law of the exchanges, legality of clearing house operations, and the legal relation between member, broker, and customer. Numerous citations to legal cases are given as well in a table of cases at the end of the book. The volume is completed by a bibliography on Commodity Exchanges and a short, rather perfunctory index.

To those engaged in daily dealings on the Exchanges the book may offer a collection of valuable information unavailable elsewhere. For those with a more casual interest only some of the chapters will have appeal, but the book should serve satisfactorily as a general reference work for students of marketing. R. T. MILNER.

AQUAMETRY, by John Mitchell Jr., and Donald Milton Smith (Chemical Analysis Series, Volume 5, Interscience Publishers inc., New York City, 400 pp. and 42 pp. index, price \$8). "Aquametry" is a term coined by the authors to refer to the determination of water by means of the Karl Fischer reagent. The book is intended as a reference book giving the applications of the reagent as developed in the authors' laboratory or presented in the literature up to early 1947.

As an introduction, brief reference is made to a great many methods which have been used to determine moisture, Chapter 1 (15 pages) containing 132 references. The remainder of the book describes the Karl Fischer reagent and its use.

It is generally known that the use of the Karl Fischer reagent has increased greatly in recent years, but there are few chemists who will not be surprised by the variety of applications discussed in this first book on the subject. Most of the methods for determining water in organic liquids or specific organic groups were developed in the authors' laboratories, but most of the applications to commercial organic materials were taken from the literature. Methods are given for alcoholic hydroxyl, amino alcohols, primary and secondary amines, acid anhydrides, carbonyl compounds, carboxylic acids, esters, nitrites, peroxides, and water in inorganic and organic com-

pounds and in a variety of commercial materials. Each method is given in great detail, which is convenient when looking up one method but involves a great deal of repetition.

I believe the authors should not have emphasized the use of the visual end-point. It may well be that one familiar with the titration can determine the endpoint visually, but gaining the required familiarity will prove a discouraging process for most people. The authors present a chapter on instrumental methods which will be of value to those making their first use of the reagant.

The section on analysis of oils is limited practically to the work of Kaufmann [Fette u. Seifen 44, 345 (1937) et seq.] and Krober and Collins (Oil and Soap, 21, 1-5 (1944), showing the use of the Karl Fischer reagent in determining moisture in the presence of volatile solvents.

The availability of detailed methods for so many applications will make the book a valuable addition in most laboratories.

F. R. EARLE.

To show how steel mills, metal-working shops, oil refineries, chemical works, and other plants are effectively combating stream pollution through the use of standard pH equipment which automatically controls the neutralization of waste, the LEEDS AND NORTHRUP COMPANY has just published a 20-page, fully-illustrated bulletin entitled, "For Effective Neutralization of Industrial Wastes-Micromax Automatic pH Control.'

