Sidney M. Edelstein, technical director of the Dexter Chemical Corporation, New York City, explains an exhibition of rare chemical history documents to his technical staffs. The manuscripts comprise a section of the Dexter library relating to the history of chemistry and textile processing. Edelstein is standing next to the Priestley letter (1783), in which the English scientist accorded Watt with the discovery of the composition of water. It was not until this letter was published in Chymia, the international journal of the history of Chemistry, that the discovery of the composition of water was credited to James Watt.

New Books

THE CHEMISTRY AND TECHNOLOGY OF FOOD AND FOOD PRODUCTS, Vol. I, Morris B. Jacobs, Editor (832 pages, 2nd ed., Interscience Publishers Inc., New York and London, 1951, $12). This is the first of three volumes revised and reissued by Editor Morris B. Jacobs and associates. The previous edition published in 1944 in two volumes represented a most valuable collection of a miscellany of information concerning food and food products in convenient, concise, and comprehensive form. Volume I of the Second Edition gives evidence that the monumental work begun with the First Edition has been materially expanded and improved.

The physical format of the Second Edition is precisely the same as that of the First Edition. Volume I, Second Edition, however has been appreciably changed with respect to authorship and also with respect to subject matter. The subjects and authors covered by Volume I, Second Edition, are:

Part One. Fundamentals

I. Introduction, by M. B. Jacobs
II. Physical Chemistry of Foods, by M. B. Jacobs
III. The Carbohydrates, by Ed. F. Degering
IV. Lipids, by W. O. Lundberg
V. Proteins and Amino Acids of Food Products, by L. M. Thomas
VI. Enzymes, by M. B. Jacobs
VII. Vitamins, Vitagens, and Hormones, by H. R. Rosenberg
VIII. Mineral Matters and Other Inorganic Food Adjuncts, by R. H. Carr
IX. Coloring Matters in Foods, by C. F. Jablonski
X. Digestion and Fate of Foodstuffs, by A. E. Wilhelmi
XI. Food Spoilage and Food Poisoning, by H. O. Halverson

Part Two. Unit Operations and Processes

XII. Unit Operations and Processes (Part I), by K. M. Gaver
XIII. Unit Operations and Processes (Part II), by K. M. Gaver

Part Three. Sanitary and Quality Control

XIV. Food Supervision and Grading, by W. F. Reindollar
XV. Instruments in the Food Plant, by M. B. Jacobs
XVI. Food Machines, by A. E. Abrahamson
XVII. Washing, Detergency, Sanitation, and Plant Housekeeping, by J. L. Wilson

XVIII. Insect and Fungus Control in Food Processing, by H. H. Shepard
XIX. Domestic Rodent Control, by H. H. Shepard

Taken as a whole, the new viewpoints of the new contributors have added appreciable strength to an already admirable work. As an example, W. O. Lundberg, who contributed the new chapter on lipids has presented very concisely some of the latest information with respect to chemical structure and reactions common to the lipids. This author handled certain aspects of his subject so brilliantly that it causes the reader, particularly if the reader is versed in lipid chemistry, to wish that this same author had presented his subject in a more comprehensive manner.

Another new contributor, L. M. Thomas, prepared a very complete chapter on proteins. Dr. Thomas possesses the ability to make his subject come alive. He has been skillfully selective in that those aspects of protein chemistry of importance to food technologists have been generously developed and well arranged.

The editor, Mr. Jacobs, has revised and expanded the chapter on enzymes. Much of the knowledge of enzyme chemistry gained during and after the war has been included.

Dropped from Volume I, Second Edition, are the chapters dealing with specific food products. Volume I now becomes a textbook dealing with fundamental aspects of food chemistry common to all foods rather than a mixed volume dealing partially with fundamental chemistry and partially with the specific food products.

Dr. Jacobs and his collaborators are to be congratulated for the high degree of success of this very ambitious undertaking. Volume I contains a veritable mine of useful information. It is sufficiently annotated for technical usage. Yet the subject matter, on the whole, is so well presented that it should prove of advantage to food technologists of both professional and practical training. These books are highly recommended as an important part of any library dealing with the subject of foods.

G. T. CARLIN
Swift and Company
Chicago, Ill.

THE CLOSING OF THE PUBLIC DOMAIN, DISPOSAL AND RESERVATION POLICIES, 1900-1950, by E. Louise Peffer (Stanford University Press, Stanford, Calif., xi plus 372 pages, $4.50). This book deals with a subject that concerns us all, our heritage, and that of our children. The author makes no claim to having written a comprehensive history of the public disposal and reservation policies in the period covered, that is, from the turn of the century, but her book discusses authoritatively the major issues, debates, enactments, and shifts of emphasis as times changed and new concepts developed. Dr. Peffer has summarized her work, originally a doctoral dissertation, quite neatly in her introduction: "it is proposed to relate, on the basis of the sources which are available, the steps by which the concept of the public domain has veered from one of land held in escrow pending transfer of title, toward one of reservations held in perpetuity in the interest of the collective owners, the people of the United States."

In 1900 more than 650 million acres of land belonged to the government, and of this vast area more than 500 million acres were open to entry. Today the public domain is still four-fifths of the latter figure, but according to the author is almost closed to private acquisition, and it appears probable that the greater part of it will remain so. What was formerly looked upon as an area for settlement is now a carefully watched treasure house of resources, and, in part at least, as a wonderland for public enjoyment.

TECNOLOGIA DE LOS ACEITES VEGETALES. II. EL ACEITE DE OLIVA Y SU INDUSTRIA, by Pier Giovanni Garoglio (Ministerio de Educación, Universidad Nacional de Cuyo, Mendoza, República Argentina, 1950, 1,377 pages, $25). Volume II of this comprehensive work on vegetable oils maintains the same format as Volume I (See J. A. O. C. S. May 1951, p. 28), but its contents are restricted almost entirely to the culture and utilization of the olive and especially to the production of olive oil. It comprises 15 chapters, a bibliography, subject and author indexes to both Volumes I and II, and lists of tables and illustrations. All except the first-mentioned were omitted from Volume I, and their inclusion immeasurably increases the

value and utility of the preceding volume. The present volume is unquestionably the most comprehensive treatise on the olive and its derived products which has appeared to date.

The first chapter (34 pages) reviews the origin and history of cultivation of the olive and its distribution in ancient times. Chapter 2 (375 pages) contains detailed statistics, by countries, on the cultivation and production of olives and olive oil. It contains numerous tables and is replete with illustrations depicting the many varieties of trees and fruit in current cultivation throughout the world. Unfortunately, much of the statistical data predate World War II and generally are not more current than 1945-46. Chapter 3 (80 pages) deals with taxonomy, methods of propagation, diseases and insect enemies of the olive, and is illustrated with numerous black and white and color plates. Chapter 4 (58 pages) describes and discusses the morphology and anatomy of the olive, methods of harvesting, handling, preservation, and analysis prior to processing. Chapter 5 (45 pages) is concerned with the preparation of olives for the table.

Chapter 6 (221 pages) comprehensively describes and discusses the various equipment and classical processes which have been applied in the production of olive oil. These include cleaning and washing the fruit, crushing, grinding, molding, pressing, centrifuging, grinding the press cake, and washing and clarifying the oil. Equipment and processes for these operations are illustrated by photographs and drawings. Chapter 7 (59 pages) presents details of plant location, layout, water supply, etc., supplemented by numerous photographs and drawings of complete commercial and pilot plants. Chapter 8 (68 pages) discusses recently developed or patented equipment for processing olives by methods other than those discussed in Chapters 6 and 7. These include mechanical, chemical, and solvent extraction processes employing water or organic solvents.

Chapter 9 (33 pages) is concerned with the action of microorganisms on fats and oils, a subject previously discussed in Chapters 3 and 4 of Volume I in connection with the synthesis and deterioration of these substances. Most of the material presented in this chapter has little practical importance and could have been omitted. Chapter 10 (31 pages) deals with processes of clarification and storage of olive oil, and Chapter 11 (28 pages) with the chemical and physical characteristics of olive oils (pulp and seed) of diverse origins.

Chapter 12, Part I (40 pages), repeats and, in some cases, augments the discussion appearing in the first volume on refining, bleaching, and deodorization although these processes are relatively unimportant in the olive oil industry. Chapter 12, Part II (116 pages), discusses the utilization of the byproducts, principally press cake. A large portion of this chapter is concerned with the solvent extraction (batch and continuous) of olive press cake. Of interest is the statement that in 1938-39 there were in operation in Italy, presumably on olive press cake, 107 solvent extraction plants of which 83 were using carbon disulfide, 18 trichloroethylene, and 6 hydrocarbons as solvent.

Chapter 13 (22 pages) discusses the therapeutic, food, and industrial uses of olive oil, subjects which were comprehensively discussed in Chapters 6 and 12 of Volume I. Chapter 14 (37 pages) is a digest of laws and regulations dealing with definition, adulteration, commerce, etc., in various countries with respect to olive oil. Chapter 15 (36 pages) is devoted to analysis and identification of olive oil and the detection of adulteration with other specific oils.

There follows a bibliography of more recent books and monographs on fat and oil chemistry and technology and a separate one covering literature on olives and olive oil. References to the original literature are sparse indeed throughout both volumes, and it is difficult therefore to separate the author's ideas and views on many subjects from predecessor authors. However he quite frequently refers to the work of others by name but leaves it to the reader to locate the appropriate reference.

Valuable and useful as these volumes are, they could be considerably more so had the material been better organized and brought out in four or five instead of two volumes.

K. S. MARKLEY
Asuncion, Paraguay

INDUSTRIAL OIL AND FAT PRODUCTS, 2nd ed., by Alton E. Bailey (Interscience Publishers Inc., New York, 967 pages, 1951, $15). Bailey's first edition published six years ago was the only modern comprehensive text in English on fat and oil chemistry and technology. It filled a definite blank space in the fat and oil literature. It has proved invaluable to all interested in the field.

The second edition has been enlarged, expanded, and brought up-to-date, making it even more valuable to all those in the field. The plan of the second edition is the same as the first except the chapter on "Production and Consumption of Primary Fats and Oils" has been omitted, and a chapter on "Handling, Storage, and Grading of Oils and Oil-Bearing Materials" has been added. The second edition is 200 pages longer than the first. The main sections are:

The Nature of Fats and Oils
Raw Materials for Oil and Fat Products
Industrial Utilization of Fats and Oil
Unit Processes in Oil and Fat Technology

The same care used in the writing and documenting of this volume has been used as in the first edition. All references have been brought up-to-date. The book is very readable. The detailed table of contents makes the information readily accessible and adds to the value of the work as a reference book. It is printed on good quality paper and is well bound.

The book is highly recommended to anyone interested in any of the branches of fat and oil chemistry or technology.

H. C. BLACK
Swift and Company
Chicago, Ill.

AN INTRODUCTION TO ORGANIC CHEMISTRY, by Alexander Lowy, Benjamin Harrow, and Percy M. Apfelbaum. 7th Edition. (John Wiley and Sons Inc., New York, 1951, 480 pp. $5.) Seventh edition of the text by Lowy and Harrow as revised by Harrow and Apfelbaum, 8½ x 5½; 37 chapters and appendix. The authors have kept in the mind the original aim of presenting a readable introductory textbook in organic chemistry. The chapters dealing with hydrocarbons and polymers have been extensively revised. This book covers the usual subjects to be found in introductory texts in organic chemistry. Frequent references are made to compounds of biochemical interest. There are very elementary chapters on proteins and carbohydrates. The chapter on "fats, oils, waxes, and some lipids" is extremely elementary. This, together with the discussion of fatty acids in another chapter, will be found to be of little value to readers of this Journal.

The authors have continued a successful introductory organic textbook, but its main value to oil chemists is for elementary organic review purposes.

J. B. BROWN
Ohio State University
Columbus, O.

INDUSTRIAL WATER POLLUTION, by Marvin D. Weiss (Chemonomics Inc., 400 West Madison avenue, New York 17, N. Y., $5). This paper-bound book of 143 pages was inspired by the increased legislative activity of the state and federal governments to prevent the seriously increasing pollution of our waterways by municipal, industrial, and agricultural sewage and plant effluents, which are making our water supplies unfit for use.

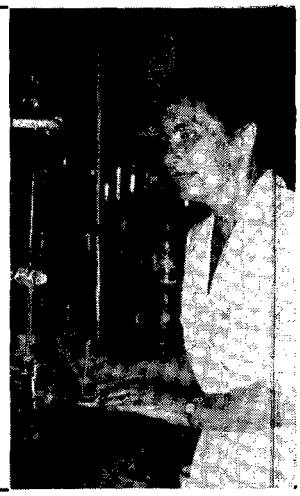
The writer is a chemical engineer, previously employed by the federal government, working with the laws that protect and preserve our waterways, and he has had the assistance of various other sanitary engineers.

This compilation of legislation covering pollution should be helpful to all those whose plant effluents may be polluting streams, lakes, and all waterways.

Its main contribution lies in the fact that it effectually abstracts and condenses this legislation, thus doing away with excess legal verbiage and tiresome, unnecessary repetition.

JOHN P. HARRIS
Industrial Chemical Sales
Division of West Virginia
Pulp and Paper Company
Chicago, Ill.

1950 SUPPLEMENT TO BOOK OF ASTM STANDARDS, including Tentatives, Part 5, Textiles, Soap, Fuels, Petroleum, Aromatic Hydrocarbons, Antifreezes, Water. (American Society for Testing Materials, Philadelphia, Pa., 579 pages, 1951.) The book is paper-covered, with page size and general arrangement identical with that of the complete 1949 Book of Standards. It "contains extensively revised standards and new and extensively revised tentatives in these materials' field that have been accepted since the appearance of the 1949 book. . . ." The 34 standards are replacements of existing standards, while one is new. Twenty-six of the 66 tentatives are replacements while the remaining 40 are published for the first time.



Miss Turid Wik, of Norway, who holds an international study grant from the American Association of University Women, has spent the past year studying soybean phosphatides in the Fundamental Oil Investigations Section of the Northern Regional Research Laboratory, Peoria, Ill. Since 1946 she has been in charge of the control laboratory of the soap factory for Lilleborg Factories in Oslo.

The items which are of most interest to the readers of the Journal are:

a. *Soaps and Detergents*

Specifications for:

D 1111 - 50 T. Chip or Granular Soap for Low-Temperature Washing (Low and Medium Titer) (Tentative)

D 1112 - 50 T. Solid Soap for Low-Temperature Washing (Low and Medium Titer) (Tentative)

D 929 - 50 T. Borax (Tentative)—is listed but not published since it has been changed very little since 1949.

Definitions of terms relating to:

D 459 - 50. Soaps and Other Detergents—is also listed and not published. Refer to Book of Methods, 1949.

b. *Petroleum Products and Lubricants*

Some of the methods may be of interest, especially those covering hydrocarbon liquid solvents, as well as methods of measuring and sampling.

c. *Industrial Water*

The methods of test, especially:

D 1126 - 50 T. Hardness in Industrial Water (Soap Method) (Tentative)

d. *Thermometers*

E 1-50. This lists the complete specifications for ASTM Thermometers.

Those who have the 1949 Book of ASTM Standards (Parts 1 to 6 inclusive) should have the supplements for both 1950 and 1951.

C. P. LONG
Procter and Gamble Company
Cincinnati, O.

THE CHEMISTRY OF ORGANIC MEDICINAL PRODUCTS, by Glenn L. Jenkins and Walter H. Hartung (John Wiley and Sons Inc., New York; Chapman and Hall Ltd., London, Third Edition, 745 pp., 1949, $7.50). This textbook by Dr. Jenkins, dean of the School of Pharmacy at Purdue University and Dr. Hartung, professor of pharmaceutical chemistry at the University of North Carolina, has been revised to include new material. It is intended primarily for advanced courses in pharmaceutical, chemical, biological, and medical science, but its treatment of elementary aspects of the subjects can be understood by beginning students.

Organic medicinal compounds are organized according to chemical classification. Descriptions of important compounds and relative importance of the compounds are given along with methods of preparation and properties. The book also organizes the large number of organic chemicals used as drugs into systematic classification for purposes of instruction and reference.

Chapter headings are as follows: Hydrocarbons, Halogenated Hydrocarbons, Hydroxyl Derivatives of Hydrocarbons, Ethers and Ether Peroxides, Carbonyl Group, Carboxyl Group, Natural Mixtures, Amines and Amine Derivatives, Cyanides and Nitro Compounds, Sulfur Compounds, Compounds of Phosphorus, Arsenic, and Antimony, Metallic Derivatives of Organic Compounds, Heterocycles Containing One Heteroatom, Heterocycles

Containing Two or More Heteroatoms, Stereoisomerism, and Some Physicochemical Properties of Medicinal Products.

In this edition the bibliography has been expanded to nine pages, containing the following divisions: General Chemical Literature, Organic Medicinal Products, Chemotherapy, Pharmacology and Therapeutics, Phytochemistry, Alkaloids, Vitamins, Enzymes, and Special Subjects. The book also has a special list of references at the end of each chapter.

Coast Chemists to Meet

THE second meeting of Northern California Oil Chemists is scheduled for Friday, November 2, 1951. Like the previous meeting it will be held at Fable's restaurant, 340 Stockton street, San Francisco. Cocktails will be served at 6, and the dinner will start at 6:30. The cost of $4.00 per person will include "everything."

The steering committee for this group has received so many favorable comments regarding the post-convention gatherings for oil chemists that we expect a considerably larger attendance at the second meeting. In addition to first-hand reports on the Chicago convention of the American Oil Chemists' Society, round table discussions are planned on several topics of wide interest to oil scientists and technologists.

Announcements will be sent to a mailing list of about 150, which will include personnel in the soap, edible oils, processing, coatings, and other industries as well as a number in the various research and consulting laboratories and universities.

A new steering committee will be elected to serve for the ensuing calendar year.

J. A. KNEELAND
W. C. WOOD
E. B. KESTER

News from SRRL

A conference to review the progress made in current feeding experiments with cottonseed meal and to discuss technical problems involved in further tests will be held at the Southern Regional Research Laboratory in New Orleans, La., Nov. 5-7, 1951, according to a joint announcement by C. H. Fisher, director of the Laboratory, and A. L. Ward, director of the Educational Service, National Cottonseed Products Association. Since accommodations are limited, persons desiring to attend this conference should contact Dr. Fisher at 2100 Robert E. Lee blvd, New Orleans 19, La., well in advance, stating whether or not hotel reservations are desired.

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The U. S. Department of Agriculture has entered into a contract with the Okmulgee Branch of Oklahoma A. and M. College, Okmulgee, Okla., to investigate the use of cottonseed flour in baked products. This contract will be supervised by the Southern Regional Research Laboratory in New Orleans, La. These investigations, financed by funds from the Research and Marketing Act, will be part of the Agriculture Departments' overall program to improve the utilization of cottonseed.

Henryk Schoenfeld

Oil chemists throughout the world mourn the passing of Henryk Schoenfeld, one of the outstanding authorities in his field and the author of much of the authoritative literature on fat and oil technology. Born in Poland in 1885, Dr. Schoenfeld was educated in Switzerland and received his Ph.D. from Zurich University in 1911. After his formal education he was engaged in the fat and oil industry and published books on refining and hydrogenation. In 1934 he commenced the monumental task of editing the works entitled "Chemie und Technologie der Fette und Fettprodukte," which all specialists in this field have looked upon as the most complete and comprehensive publication of its type in existence. Its completion was interrupted however by World War II, and Dr. Schoenfeld then engaged in research work in the Department of Industrial Chemistry at the University of Liverpool.

In 1949 Dr. Schoenfeld commenced the preparation of another series of four to five volumes entitled "Fats—Their Chemistry, Technology, and Utilization," which was to be published by Butterworth and Springer of London. He was thus engaged until his sudden death on May 8, 1951, at the age of 66.

W. H. Goss