

## Black Named President, Konen Vice President

**I**N ACCORDANCE with the by-laws (no surprise to anyone!) H. C. Black, associate director of research, Swift and Company, Chicago, was elected president of the American Oil Chemists' Society by mail ballots, which were counted on April 1. Also elected, without opposition and surprises save for a half dozen write-in votes, were R. W. Bates, Armour and Company, as secretary, and A. F. Kapecki, Wurster and Sanger Inc., as treasurer. Mr. Bates and Mr. Kapecki have both been incumbents since 1954.



H. C. Black

In a close race with J. J. Ganuchau, who has been a member-at-large on the Governing Board since 1954 and was third vice president in 1936 and 1942, the office of vice president was won by J. C. Konen, who is also vice president for his company, Archer-Daniels-Midland, Minneapolis. Mr. Konen had been on the Board in 1951, 1953, and 1954.

Winners for the member-at-large places on the Board were A. R. Baldwin, N. D. Embree, and R. C. Stillman. Dr. Baldwin, who is director of research for Cargill Inc., Minneapolis, has been chairman of the Journal Committee and editor of the Journal since 1949 and a member of the Board 1951-53 and 1956. Dr. Embree has been on the Board since 1955. Newcomer Stillman is chairman of the Oil Color Committee for the Society and is in charge of analytical standards and laboratory factory service for Procter and Gamble, Cincinnati.

Serving with these officers during the coming year will be the four immediate past presidents: T. H. Hopper, W. A. Peterson, C. E. Morris, and Procter Thomson. Outgoing past president is E. M. James.

Mr. Peterson served as chairman of the Nominating and Election Committee, aided by E. W. Colt, J. P. Harris, Duncan Macmillan, and R. H. Rogers Jr. Announcement of the election results and installation of officers were part of the annual meeting of the Society in New Orleans April 29-May 1 at the Roosevelt hotel.



J. C. Konen



A. R. Baldwin



R. W. Bates



A. F. Kapecki

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### Offers 1957 Soybean Blue Book

The 1957 edition of the Soybean Blue Book is available at \$3 per copy from the American Soybean Association, Hudson, Ia. Included for the first time this year are maps showing the average maturity dates of leading soybean varieties at different locations.

### Fatty Acids Rise

Production of fatty acids in February 1957 was 35.9 million lbs., about 2.0 million lbs. above the January level but about 3.5 million below production reported for February 1956, according to the Fatty Acid Producers' Council, New York. Disposition in February totalled 37.3 million lbs., up 2.6 million from the January figure but down 2.7 million from the disposition figure for February 1956. Stocks of finished goods totalled 28.7 million lbs., practically unchanged from the previous month's figure.

### Publishes New Facts Book

The third edition of "The Chemical Industry Facts Book" is available at \$1.25 per copy from the Manufacturing Chemists' Association Inc., 1625 Eye street, N.W., Washington 6, D.C. A 20-page teacher's guide prepared by John S. Richardson, president, National Science Teachers Association, may be obtained without charge for use with the book.

H. W. Zussman, president, GEIGY CHEMICAL CORPORATION, Ardsley, N. Y., announces the appointment of J. C. Findlan as sales manager of the Geigy industrial chemical division.



N. D. Embree



R. C. Stillman

## New Literature

A 16-page catalog, "Instrumentation for Analysis," has been published by Perkin-Elmer Corporation, Norwalk, Conn.

The seventh edition of Lanco Apparatus Review is available from Arthur S. LaPine and Company, Chicago, Ill.

Frederick J. Stare is the author of an article on "Food and Heart Disease" in a recent issue of Progress Thru Research, published by General Mills Inc., Minneapolis, Minn.

The Manufacturers Chemicals Department of American Cyanamid Company, New York, N. Y., has published a bulletin on "Surface-Active Agents," available to companies using chemical processes and to specialty manufacturers.

A recent publication of Heyden Newport Chemical Corporation, New York, N. Y., describes a high polymer alkyd technique which increases the proportion of high molecular weight polymers.

Hilger and Watts Ltd., London, England, has published a 28-page booklet entitled "Spectrochemical Analysis."

"New Tung Oil Derivatives" is the title of a new bulletin, ARS-72-7, available from the U.S.D.A. Research Service, Southern Utilization Research and Development Division, New Orleans, La.

Bulletin 801, the 1957 catalog on purifiers, mist extractors, scrubbers, steam traps, and strainers available from V. D. Anderson Company, Cleveland, O., itemizes the principal applications of Anderson purifiers.

Diamond Alkali Company, Cleveland, O., has published a 12-page booklet on "Successful College Recruiting This Year—1957."

The March 1957 issue of Inter-Society Color Council News Letter announces the appointment of Warren L. Rhodes as the new editor of that publication. Mr. Rhodes is head of the graphic arts research department, Rochester Institute of Technology, Rochester, N. Y.

A recent issue of Heat Engineering, published by Foster Wheeler Corporation, New York, N. Y., features an article on "A Modern Dewaxing and Deoiling Unit for Standard Oil Company (Indiana)."

## Publishes Anniversary Book

Twenty-eight American educators and industrialists have contributed the essays on the history of scientific thought and achievement which comprise "The First One Hundred and Fifty Years, a History of John Wiley and Sons Inc." (John Wiley and Sons Inc., 440 Fourth avenue, New York 16, N. Y.). This 242-page, handsomely bound book is available at \$7.50 per copy.

## In May, 1957

Speakers at the 13th annual meeting of the Society included G. S. Jamieson on "The Analysis of Crude Vegetable Oils," David Wesson on "Research Problems of the Cotton Oil Industry," and William Kelley on "Filtrol—A New Deodorizing Material for Oils."

R. D. Oilar sailed in April for South America to build and put into operation edible oil and refrigerating plants for Larribure Hnos., Lima, Peru. After completing the work he expects to continue on to Chili, Argentina, Brazil, and Venezuela.

J. Jakobsen, Palmine Company, Dobbs Ferry, N. Y., writes on "Examination of a Wax Found in Edible Linseed Oil" in the Chemists' Section of The Cotton Oil Press.

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## Problem Corner

February 1957

### Question

We frequently have had to measure the decolorizing power of commercial bleaching earth, according to the A.O.C.S. methods Cc 8a-52 and Cc 8b-52. Could you send us detailed information on the official bleaching earth so that we may study the possibility of preparing an earth according to your standards? I would appreciate receiving specific information on the following points:

1. What are the criteria adopted by the A.O.C.S. for choosing natural bleaching earth to be used as a standard?
2. What are the tests employed for characterization?
3. Is the clay material composition of this earth known?
4. Is the earth submitted to any treatment prior to activation and what type of activation is used?
5. What is the optimum particle size?
6. Why is it necessary to renew the earth every year?

FROM BRAZIL

### Answer

Our A.O.C.S. Official Bleaching Earths are standards for comparing the bleaching efficiency of similar earths or determining the bleachability of oils bought and sold commercially. In the quantities ordinarily used for such purposes they are comparable to our U. S. Bureau of Standard materials or any fine reagent chemicals used as ultimate standards in chemical analysis.

Using quite limited quantities of our Official Earths, you could standardize Brazilian earths carefully selected for their ability to be duplicated exactly in future deliveries. Once calibrated, in the manner to be described later, you would have your own official bleaching earth standards.

Answers to your specific questions are as follows:

1. The criteria used by A.O.C.S. in selection of either a natural or activated bleaching earth are concerned solely with the following properties in about their relative order of importance: a) uniformity from can to can and from lot to lot; b) certainty that later deliveries will be duplicates in all respects of the original supply; and c) constant and reproducible bleaching efficiency on identical oil samples in different laboratories by the appropriate method (Cc 8a-52, Cc 8b-52, or Cc 8d-55).
2. The bleaching methods used are those given above except that the dosage of the earth is varied, usually in increments of 1%, from 1 to about 6 or 7%. Colors of the bleached oils are plotted against percentage of earth used, and the bleaching equivalents of the earth being tested are determined from the curves obtained.
3. A.O.C.S. does not have information on the clay or mineral composition of these earths.
4. We understand that the only treatment given the natural earth is of a physical nature. With the exception of the activation process we believe that also is true of the activated earth. We are not familiar with the activation process.
5. We are not prepared to prescribe an optimum particle size for a bleaching earth. In general, bleaching efficiency increases with diminishing particle size, but the oil retained in the spent press cake increases in a similar manner. The particle size therefore is a compromise between cost of grinding and separation, bleaching efficiency, and oil retention by the spent earth.
6. The renewal each year is dictated purely by the necessity for keeping these standards under the strict control of the Society. A few years ago our natural earth was changed from an English to a U. S. source. The earths were quite different in nature. The change-over was made to coincide with the expiration date of the former standard since obviously the existence of more than one official natural bleaching earth would create endless problems and misunderstandings. It was necessary for one to supersede the other. Similar problems may arise in the future.

Mr. T. C. Smith, A.O.C.S. Bleaching Methods Committee, has handled the standardization of our recent stocks of official bleaching earths. It is suggested that you write to him if you require additional information.

J. T. R. ANDREWS, chairman  
 Uniform Methods Committee

## Prints New Flow Sheets

A new set of leaflets entitled "Chemical Production Flow Sheets, Plant Diagrams" is available at DM 16 per set from DECHEMA Deutsche Gesellschaft für Chemisches Apparateswesen, Frankfurt am Main 7, Postfach. The new set, consisting of 40 sheets, is an enlarged edition of the 1949 publication entitled "Construction Flow Sheets, Symbols Used for Equipment," which is out of print.

## New Books

**BIOCHEMICAL PROBLEMS OF LIPIDES**, edited by G. Popjak and E. LeBreton (Butterworth's Scientific Publications, London, and Interscience Publishers Inc., New York, 505 pp., 1956, \$10.75). The book represents the collected lectures at the Second International Conference on Biological Problems of Lipides, at Ghent, Belgium, July 27-30, 1955. Part One contains 19 papers on physical and chemical properties, methods of separation, and structures. Part Two contains 16 papers on metabolism, biosynthesis, and enzyme systems. Part Three contains 17 reports on phospholipides and transport. Part Four consists of 17 papers on miscellaneous problems. Of the 69 papers, 16 are in French and four are in German. The text is preceded by a note by the secretary to the editorial board and by an introduction by R. Ruyssen, president of the organizing committee. The text is followed by a four-page index. The book is printed in Monotype Baskerville type on good quality paper. The volume, 6½ by 10 in., is bound in green cloth, but the covers do not lie flat.

Most of the papers are significant contributions to the current problems in the field of lipides. The reports are generally documented with recent references, and many are followed by the discussions which actually followed their oral presentations. The book treats a great variety of problems. Some of the papers are of limited scope, but many are critical reviews of a field. The book should be valuable to lipide chemists interested in biological, nutritional, or biochemical problems, but it does not contain much which has a direct bearing upon the technology of fats.

RALPH T. HOLMAN  
Hormel Institute  
Austin, Minn.

**DICTIONARY OF POISONS**, by Ivert and Eleanor Mellan (Philosophical Library, New York, 150 pp., 1956, \$4.75). This book, as the title indicates, is a compilation of the more common poisons, their symptoms, antidotes, and emergency treatments. The beginning pages give numbered preparation of emetics, demulcents, cathartics, and stimulants which are utilized in the treatment of the various alphabetically-indexed poisons. Of particular interest to this reader was the historical background associated with such poisons as aconite, hemlock, nicotine, opium, and others. This book is not to be regarded as a treatise on poisons but as a book written for the layman who would like an elementary knowledge of the more common poisons. Every home library should have a book of this nature to aid in the detection and emergency treatment of cases arising from accidental poisoning.

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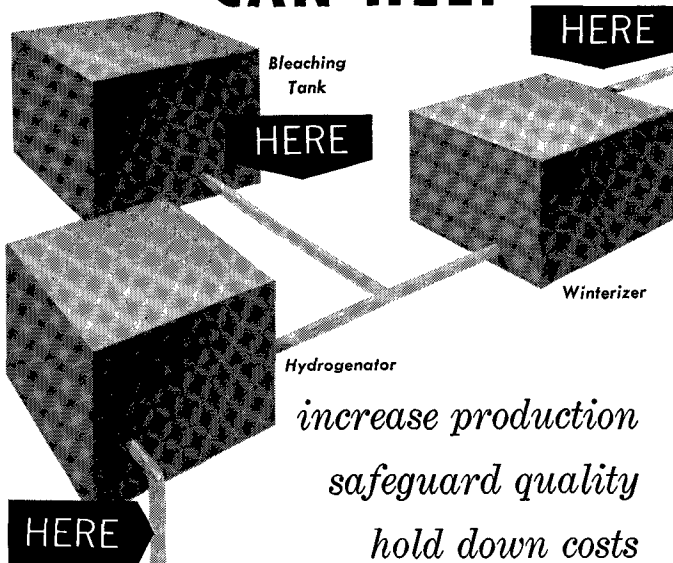
**UNIT OPERATIONS OF CHEMICAL ENGINEERING**, by Warren L. McCabe and Julian C. Smith (McGraw-Hill Book Company, New York, 945 pp., \$10.50). The authors in their preface describe their work as a beginning text on unit operations, written for undergraduate students. This is an understatement as it will not only serve as a textbook but will be an excellent reference book for the practicing engineer as well. It covers each important unit operation from the scientific and theoretical approach through the practical applications, and to aid the student as well as old engineers like myself who have forgotten much or perhaps never knew, the authors present detailed solutions to more than 100 practical problems. In addition to the worked-out examples, many unsolved problems, charts, graphs, pictures of equipment, etc., and numerous references to chemical engineering literature are included. The chapter on Fluid Mechanics thoroughly covers the basic principles of fluid flow while the chapter following, on Transportation of Fluids, contains the practical information for putting these principles to work. The distillation chapter covers almost 100 pages and is a clear and concise treatise of the subject. The book is recommended as a valuable addition to the engineer's book shelf for it will provide him with a clear and current review of unit operations.

R. H. POTTS  
Armour Chemical Division  
Chicago, Ill.

**TECHNIQUE OF ORGANIC CHEMISTRY**, vol. III., PART I. SEPARATION AND PURIFICATION, 2nd ed., editor: Arnold Weissberger (Interscience Publishers Inc., New York, N. Y., 873 pp., 1956, \$17.50). This volume is bound in cloth and is printed clearly and legibly on paper of good quality. The diagrams, drawings, and illustrations are clear, the format is, in general, excellent. The volume consists of six chapters, a gen-

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**1940's** Croll-Reynolds directs activity toward war effort, supplies a great number of EVACTORS for shipboard use, special units for the atomic program, and equipment for manufacturing new types of explosives and chemicals. In the late 1940's, Croll-Reynolds develops and supplies vacuum equipment for vacuum cooling of fresh vegetables.

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eral index, and a cumulative author and subject index. Contents are as follows: chapter I, Diffusion Methods, Part 1. Thermal Diffusion of Organic Liquids, by A. L. Jones; Part 2. Barrier Separations, by Karl Kammermeyer; Part 3. Dialysis and Electrolysis, by Eliot Stauffer; Part 4. Zone Electrophoresis, by E. MacWilliam; chapter II, Laboratory Extraction and Countercurrent Distribution, by Lyman C. Craig and David Craig, with a section on Liquid-Liquid Extraction for Increased Quantities, by Edward G. Scheibel; chapter III, Crystallization and Recrystallization, by R. Stuart Tipson; chapter IV, Centrifuging by Charles M. Ambler and Frederick W. Keith Jr.; chapter V, Filtration, by Arthur B. Cummins and Francis B. Hutto Jr.; and chapter VI, Solvent Removal, Evaporation, and Drying, by Geoffrey Broughton.

All the chapters have been revised and expanded. The volume contains 186 additional pages plus several new sections. Parts 1, 2, and 4 of chapter I and the section on increased quantities in chapter II represent additions to material covered by the first edition. The chapter on Heating and Cooling and that on Mixing contained in the first edition are not included in this volume but will be in Part II: Laboratory Engineering.

This volume has maintained the high standards of the series. It is primarily a laboratory reference for the organic chemist, who is most likely to consult such a volume relative to specific points. However the volume is to be recommended for more general reading to give the chemist an appreciation of the complexity of simple operations which he may more or less take for granted.

To workers in the field of fat and oil chemistry the chapters on extraction, crystallization, and solvent removal are especially significant. Also the section on thermal diffusion is well worth reading. This reviewer was impressed by the discussion of crystallization and recrystallization. Within his knowledge the material contained in this chapter is not to be found in its entirety elsewhere. The discussion of the fundamentals of crystal formation is rewarding reading, and the treatment of eutectics and their relation to the separation of mixtures is especially worthy of attention.

Although the style varies from chapter to chapter, the writing is all good and is relatively free from errors. Discussions are detailed as they should be for a laboratory reference. For the practicing organic chemist the theoretical discussions in the various chapters are adequate. Ample references to more detailed treatments are given. Throughout the volume the documentation appears to be adequate; specific references are at the bottom of the pages and general references at the end of the chapters.

In one respect the volume is a little inadequate. The index consists of only 26 pages, a rather low proportion for a reference volume which contains much detail. Indeed, the section on zone melting in chapter III cannot be located by means of the index. It is probable that this chapter suffers most since it covers a rather wide variety of subject matter.

As with other volumes of the series, this second edition of vol. III is indispensable to the organic chemist who is interested in the modification and improvement of his laboratory technique.

H. J. HARWOOD  
Armour and Company  
Chicago, Ill.

CHEMICAL ENGINEERING KINETICS, by J. M. Smith (McGraw-Hill Series in Chemical Engineering, McGraw-Hill Book Company Inc., New York, N. Y., 6 x 9, 402 pp., \$8). The book is a worthwhile addition to the chemical engineering series. It reflects present trends in the application of chemical kinetics to the solution of practical problems and to procedures for process design.

In treating the process-design problems, the text covers the composition and properties of the reaction system, such as shape and size of the equipment and variations in flow, pressures, temperatures, etc. However treatment of plant-design problems, such as materials of construction, mechanical features, and plant location, are not considered except as incidental to the process design problem.

The text material follows an orderly arrangement. A summary of thermodynamic principles and present-day theories of chemical reactions are covered in the two chapters following the introduction. In the newer approach which is used the trend is away from the costly method of carrying out experiments on small-scale equipment of progressively larger size until the results can be projected to a commercial-scale plant. The author emphasizes the use of kinetic data to determine a satisfactory rate equation. The rate equation thus determined is used by the chemical engineer in his process design. This generally permits commercial production of a product to proceed but does not necessarily provide an understanding of the reaction mechanism.