Variety of Subjects Marks 25th Fall Meeting in Chicago

FIFTY-FOUR papers were read at the 25th Fall Meeting of the American Oil Chemists' Society, held in the Edgewater Beach hotel, Chicago, October 8-11, 1951. They were presented in a detergency session, a drying oil session, and an engineering and processing session as well as four general sessions.

Prior to the opening session, which was that on detergency, G. L. Prichard of the Production and Marketing Administration, Fats and Oils Branch of the U.S.D.A., discussed the current economic situation as related to the fats and oils industries. According to Mr. Prichard, it seems likely that increases in production will stabilize the prices of fats and oils in 1952. The only oils which may be classed as scarce are tung and castor oils. Stepped-up production of these is being encouraged. About 20% of the current oil supply is going to defense purposes as against 45-50% during the war years. He forecast that Western Europe would continue to be a shortage area.

G. W. Busby and D. E. Grosvenor of Lever Brothers, A. C. Reents and D. M. Stromquist of the Illinois Water Treatment Company, and Orlando Graziani, Archer-Daniels-Midland Company, presented papers on purification of glycerine by ion-exchange on a commercial scale. A high grade product is obtained from the crude product at a lower operating rate.

"Non-ionic Surfactants Derived from a New Hydrophobic Base" was the title of a paper presented by T. H. Vaughn, D. R. Jackson, and L. G. Lundsted of the Wyandotte Chemical Corporation. The hydrophobic base was formed by condensing propylene oxide into molecules large enough to be water-insoluble in varying degrees. These were then further condensed with ethylene oxide to form the hydrophylic portion of the surface-active agent.

Six papers were presented on detergent problems.

F. C. Pack, R. W. Planck, and F. G. Dollear described the determination of the total unsaturation of tung oil by catalytic hydrogenation. The method appears to be superior to other known methods for determining quantitatively unsaturation in conjugated systems.

L. B. Falkenburg, W. H. Hill, and Hans Wolff presented a paper on the polymerization of styrene in the presence of oils, fatty acids, and methyl esters. They conclude that styrenated oils are not true copolymers but mixtures.

H. M. Teeter and R. A. Myren, E. W. Bell and L. C. Woods described in two papers the dechlorination of soybean oil with aqueous solutions of salts. The products they describe are lighter and have lower chlorine contents and lower viscosities. The principal advantage is the reduced cooking time of the varnishes which are produced from the oils.

P. O. Powers of the Pennsylvania Industrial Chemical Corporation suggested that the formation of a Diels adduct from an alpha unsaturated carbonyl group in one chain and a conjugated diene in another fatty acid chain may result in many of the changes in properties of drying oil films as they harden.

C. W. Christensen of Armour and Company discussed the pilot plant development of chemicals and especially ketones from fats. In a paper by R. R. Allen, L. A. Van Akkeren, and R. J. Vander Wal, also of Armour and Company, two models of all-glass apparatus for semi-continuous deodorization of oils were described. One of these was of the bubble cap type, and the other was a perforated plate column.

R. W. Berger presented a paper on the improvements in the simple distillation of fatty acids by continuous methods. The essential operations are discussed and compared with earlier methods.

K. F. Mattil and R. J. Sims of Swift and Company presented a paper on the glycerolysis of fat in tertiary aromatic nitrogeneous bases, such as pyridine, to increase monoglyceride yield.

The reaction of fats with ammonia and amines was the subject of a discussion by E. T. Roe, Jeanne M. Stutzman, J. T. Scanlan, and Daniel Swern of the Eastern Regional Research Laboratory. They have found that almost quantitative yields of amides are produced in 15 minutes by the reaction between triglycerides and triethanolamine. Liquid ammonia and aqueous ammonia also convert the fats to amides, the latter in only 50% yield.

By use of fatty amines to form an adsorbed layer on the stone better bonding with asphalt can be obtained, according to V. P. Gregory of Armour and Company. A paper on the mechanism of corrosion inhibition by polar organic compounds was read by F. W. Pohl of the same company.

A paper entitled "Melting Dilation as a Function of Chain Length in Fatty Acids and Their Glycerol Esters" was presented by W. S. Singleton and Audrey T. Gros of the Southern Regional Research Laboratory. The melting dilations of the saturated, even-numbered, fatty acids containing 10 to 18 carbon atoms and their mono-, di-, and triglycerides were found to have definite interrelationships.

R. L. Pozorski and H. T. Spannuth of Wilson and Company discussed the effect of replacement fat on the quality of potato chips as related to the use of butylated hydroxy anisole, propyl gallate, and citric acid. There was a rapid decline to a state of equilibrium. Replacements of fat resulted in a saw tooth variation in the curve.

E. M. Meade of the University of Manchester, England, reviewed his and other work on the natural acetylenic fatty acids. Eight of these have been isolated, and others are in a state of partial purification. It is possible that as many as 20 different acetylenic fatty acids exist, he indicated.

C. R. Scholfield, H. J. Dutton, and R. J. Dimler, Turid Wik, C. R. Scholfield, and J. C. Cowan of the Northern Regional Research Laboratory presented papers describing the use of isopropanol in the separation of soybean phosphatides.

In a highly interesting and timely paper Daniel Swern of the Eastern Regional Research Laboratory traced the history of the discovery and development of the urea complex method for separating many classes of fatty compounds. The complexes are easily prepared and as easily decomposed after separation is effected. Dr. Swern presented data from his own laboratory showing that methyl esters can be differentiated by the transition temperatures of their urea complexes.

R. J. VANDER WAL
L. A. VAN AKKEREN

RALPH T. HOLMAN has received a staff appointment at the Hormel Institute, Austin, Minn., with academic appointment at the University of Minnesota as associate professor of physiological chemistry. He will continue work begun at Texas A & M, with particular interest in chromatography of lipids and study of essential fatty acid metabolism.

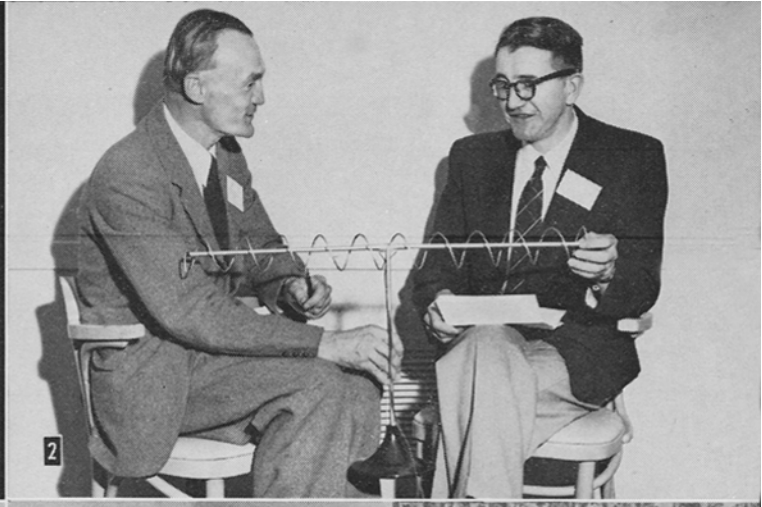
Allen McKee Bond Jr. has been appointed manager of the fats and oils section of Votator Division of the GIRDLER CORPORATION, Louisville, Ky.

CAMERA GLIMPSES

1. **HOUSTON MEN, J. Kelly Dixon and William Argue, drop in at Wurster and Sanger exhibit to chat with George Bailie. Mr. Argue is chairman of the annual meeting in Houston next spring.**
2. **OVERSEAS VISITORS, E. M. Meade of Manchester, England, and John Lie of Fredrikstad, Norway, have fun with TV apparatus which Meade has dubbed a model of the urea complex.**
3. **SOAP EXPERTS line up for chat with Vice President E. M. James. Facing him are M. L. Sheely, Armour 31st Street Auxiliaries; W. A. Peterson, Colgate-Palmolive-Peet; E. R. Luckow, Allen B. Wrisley Company; and two from Procter and Gamble: J. T. R. Andrews and R. C. Stillman. Mr. James is with Lever Brothers.**
4. **ENLIVENING the waiting period before departure on a sight-seeing trip are Mrs. E. M. James *(left)*, New York City; Mrs. W. L. Wurster *(seated)*, Cincinnati; Mrs. W. R. Prosch, Chicago; Mrs. G. J. Heider, Chattanooga; and Mrs. F. R. Earle, Peoria, Ill.**
5. **CINCINNATI'S Procter Thomson and N. A. Ruston chat with E. J. Rhein in the Kimble Glass booth. Mr. Ruston is chairman of the 1952 fall meeting in Cincinnati.**
6. **G. L. PRICHARD, headline speaker, chats with H. T. Spannuth, program chairman *(right)*, in the Laboratory Construction Company booth.**
7. **ITALY is represented at the 25th fall meeting in Chicago by Prof. and Mrs. Giovanni Jacini from the University of Milano.**
8. **J. P. HARRIS (with book) explores a scientific problem with several convention speakers: Harry Andrews Jr. and Paul S. Hess of Congoleum-Nairn Inc. *(left)* and E. D. Gile of Opelousas Oil Refinery.**


Wurster & Sanger, Inc.
CHICAGO, ILL.

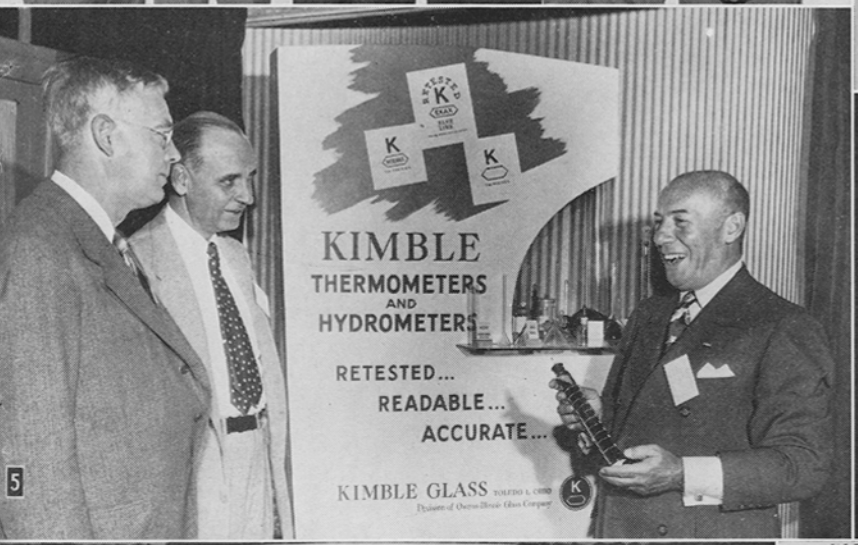
1



2

3

4

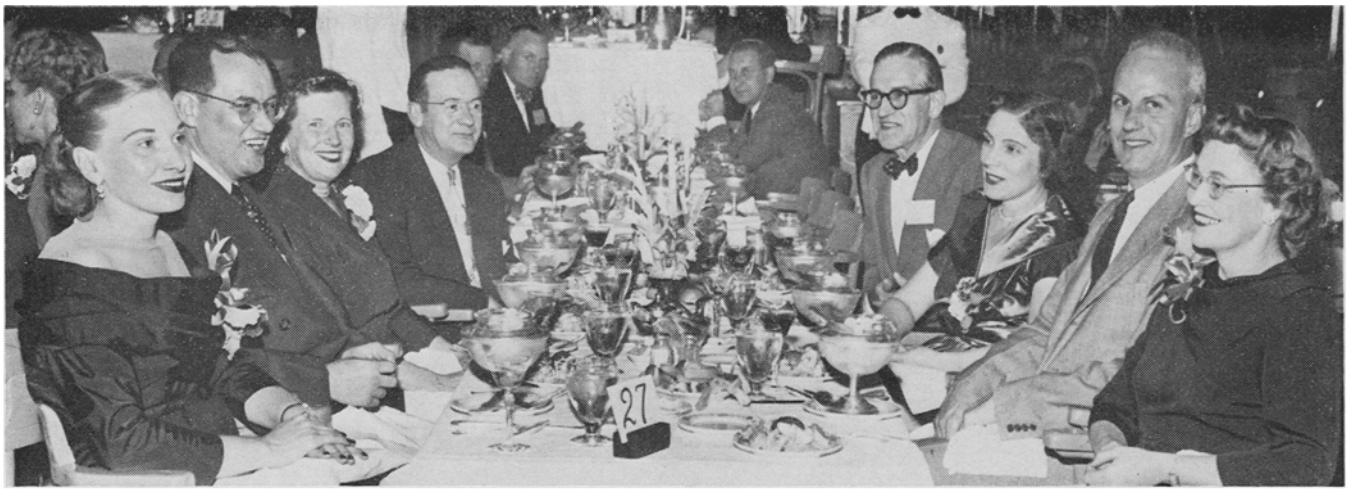

KIMBLE
THERMOMETERS
AND
HYDROMETERS
RETESTED...
READABLE...
ACCURATE...
KIMBLE GLASS

5

6

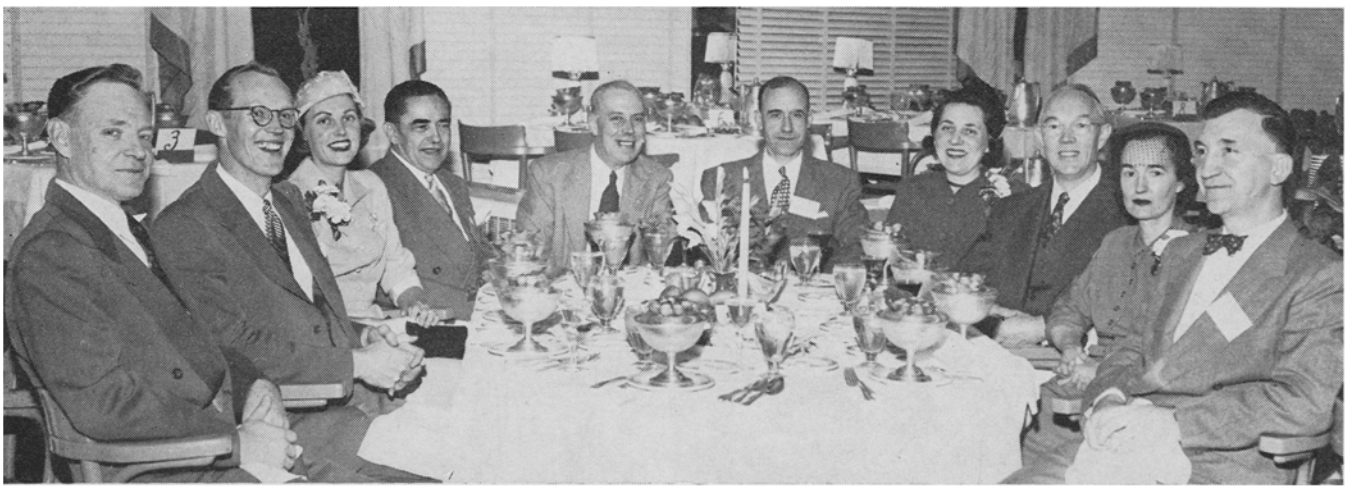

Encyclopedia Britannica
CHICAGO, ILL.
1951
ENCYCLOPAEDIA BRITANNICA
1951
ENCYCLOPAEDIA BRITANNICA
REGISTER
FOR
Free
Preview
BOOKLET
REGISTER
FOR
Free
Preview
BOOKLET


PURIFICATION BY ADSORPTION



CHAIRMAN C. E. Morris and Mrs. Morris have as table partners at the banquet in the Marine dining room of the Edgewater Beach hotel, Chicago, the following: *(left to right)* Mrs. A. E. Bailey, Mrs. Harley L. Ward, V. C. Mehlenbacher, Mr. Ward, Mr. Bailey, and Mrs. Mehlenbacher. Mr. Morris is second from the left and Mrs. Morris, third from the right.

MERRYMAKERS at this table are, in the usual order, E. D. Gile, J. A. Stovall, Mrs. George F. Clark Sr., L. S. Kelly, J. S. Stokes, J. L. Schnake, Mrs. E. J. Bennett, and Mr. Clark Sr.



AROUND THE FESTIVE BOARD are C. M. Gooding, R. G. Fulton, Mrs. Fulton, H. W. Vahlteich, Edward Trout, G. H. Carroll, Mrs. Carroll, A. W. Haskell, Mrs. Haskell, and Morris Mattikow.