



GOVERNING BOARD



GOVERNING BOARD—This outdoor shot was supposed to be taken in front of a signboard across the highway from the Shamrock hotel, whereon the First National Bank of Houston would welcome the American Oil Chemists' Society. The sign was not ready in time however so the Board lined up on the lawn between hotel and garage in the mid-day sun: (left to right) front row—W. A. Peterson, A. R. Baldwin, Procter Thomson, E. M. James, V. C. Mehlenbacher, C. P. Long; back row—N. A. Ruston, J. R. Mays Jr., A. E. Bailey, T. H. Hopper, and J. J. Vollertsen.

Governing Board Announces Actions

VARIOUS actions taken by the Governing Board before and after the 43rd annual meeting of the American Oil Chemists' Society in Houston, Tex., April 28-30, 1952, are newsworthy. In summary form these are as follows:

- Change of name for Smalley Foundation Committee to Smalley Committee
- Authorization of 1953 short course at Texas A & M College, with J. D. Lindsay as chairman
- Reappointment of Lucy R. Hawkins as executive secretary
- Reappointment of A. R. Baldwin as chairman of the Journal Committee and Journal editor
- Reappointment of Harley L. Ward as advertising manager
- Reappointment of T. H. Hopper as technical editor of the *Methods of Analysis*
- Reappointment of the Referee Examining Board: R. W. Bates, chairman, R. R. King, J. R. Mays Jr., and A. S. Richardson, with E. M. James *ex officio*
- Reappointment of J. J. Ganucheau and J. C. P. Helm as New Orleans representatives of the Society
- Appointment of R. T. Milner as representative to the American Association for the Advancement of Science, succeeding K. S. Markley
- Reappointment of the same representatives to the Inter-Society Color Council: representatives—Procter Thomson, chairman, E. B. Freyer, and Francis Scofield; accredited delegates—N. D. Embree, R. R. King, Duncan Macmillan, T. C. Smith, R. T. O'Connor, and L. K. Whyte.
- Reappointment of S. O. Sorensen and D. S. Bolley as representatives to the Scientific Section, National Paint, Varnish, and Lacquer Association
- Authorization of the reprinting of the *Methods* by offset process by the Garrard Press, Champaign, Ill.
- Authorization of appointment by the president of a representative to attend the meeting of the American Society for Testing Materials in June
- Acceptance of invitations to meet in San Antonio in the spring of 1954 and in Minneapolis in the fall of 1954

- Authorization of a cumulative index to be printed as part of a Journal issue, when finished by Dr. Baldwin
 - Authorization of continuance of the Special Glycerine Committee, of which C. P. Long is chairman
 - Authorization of continuance of the special committee on finances, of which C. E. Morris is chairman
 - Authorization of a committee to study the constitutional aspects of establishing local sections of the Society
- In Baldwin's report about Journal affairs he said that there had been a 4½% increase in printing costs, also an increase of 15% in advertising rates, both effective this year.

Houston Technical Papers Are of Great Interest

FORTY-FIVE excellent technical papers were presented at the 43rd Annual Meeting of the American Oil Chemists' Society held in Houston's fabulous Shamrock hotel, April 27-30, 1952. The papers were grouped into six interesting technical sessions.

Warren H. Goss of Pillsbury Mills Inc. opened the first technical session with a discussion of trends in the oilseed industry. He pointed out that the shortage of fats and oils resulting from World War II has been satisfied and the trend of supply and demand is levelling off prices. The rush is over in construction of solvent extraction plants in the soybean industry, and a number of expeller mills are for sale. In the technical phases cottonseed processing is well along in the use of prepressing, followed by solvent extraction, while linseed is in the early stages in the use of prepressing. Considerably more emphasis is being placed on better protein meal, and much progress has been made in eliminating gossypol difficulties with cottonseed. The incidence of cattle deaths from feeding soymeal extracted with trichlorethylene has shown that this problem is far more serious than anticipated. There is increasing competition from animal fats due to development of catalytic interchange of fatty acids to give them better physical properties.

Five papers concerned with processing cottonseed were presented. In discussing the solvent extraction of cottonseed oil, R. P. Hutchins of the French Oil Mill Machinery Company de-



HOUSTON COMMITTEE—Ranged at the registration desk are: (left to right) A. R. Greenlaw, Kenneth Keneaster, J. L. Schnake, William Argue, chairman, J. D. Lindsay, W. J. Pais, P. A. Williams, and Alvin Richey; (back row) W. D. Harris, G. M. Kreutzer, and H. D. Fincher.

scribed three distinctly different processes for solvent extracting cottonseed. These are a) to prepress and to extract the prepressed cake, b) to flake and extract raw cottonseed, and c) to crush and extract cooked cottonseed. Selection of the best processing method involved a comparative examination of the economic factors for each case.

S. P. Clark and A. C. Wamble, A & M College of Texas, described the investigations of a process for extraction of the oil from crushed cottonseed prior to separation of the linters and hulls from the kernels and subsequent separation of the solid products. The economies of this process are claimed to be comparable to that of current methods of operation.

In another paper, presented by H. L. E. Vix, the advantages of high capacity from small filter units and low solvent requirements were claimed for the filtration-extraction process developed at the Southern Regional Research Laboratory.

The importance of proper process operation was emphasized by John W. Dunning of the V. D. Anderson Company, who presented data showing that the capacity of an expeller could be considerably increased by following a specified procedure of cooking and by increasing the speed of the expeller shaft.

Although a great amount of work has been done on the variables involved in hydraulic pressing of cottonseed, Clyde L. Carter of the University of Tennessee, in a paper presented by

G. H. Hickok, demonstrated a definite relationship between residual oil, pressing temperature, and pressing moisture.

Several papers were concerned with the effect of processing conditions on the meal product. George Burnet Jr. and L. K. Arnold, Iowa State College, gave the results of studies on the effect of dry and moist heat on enzyme activity and the glutelin protein in soybean meal. Two papers from the Southern Regional Research Laboratory gave the effect of processing conditions on gossypol in cottonseed. It was concluded that while screw pressing gave greater reduction of free gossypol in the meal, the higher developed temperatures also reduced the thiamine content and nitrogen solubility. Low gossypol in hydraulic meals could be obtained only by a combination of proper cooking and adequate rolling.

FOR the opening paper of the session on analytical and basic chemistry of lipids O. K. Neville of the Oak Ridge National Laboratory told how the use of isotopic techniques has, in the last five years, become routine procedure in the laboratories of universities. Examples were given, and the various uses of isotopes were classified. Also in the analytical field, Ralph T. Holman described the technique of displacement chromatography for the separation of lipids having closely similar physical and chemical properties. Daniel Swern and Win-



STUDENT SESSION—An innovation at the Houston 1952 spring meeting of the Society was the student delegation from Texas A & M College, which came over Tuesday, April 29, for a morning of lectures at the Shamrock hotel and a plant trip in the afternoon. R. R. King (second from left, second row) presided.



SPEAKERS—Gathered around the rostrum in the Shamrock convention hall are R. O. Feuge, S. P. Clark, E. A. Gastrock, Oliver Grummitt, and Irving Wolf.



SPEAKERS—Among those who presented papers at the Houston meeting were the above, from left to right: Stuart A. Harrison, L. K. Arnold, R. T. Milner, D. S. Bolley, R. R. Allen, D. H. Wheeler, and R. A. Chapman.



SPEAKERS—Another group gathered for the camera-man are the following: O. K. Neville, G. H. Hickox, S. F. Herb, W. H. Hunt, Loren Hammack, H. L. E. Vix, and R. T. O'Connor.



SPEAKERS—In a gay mood, with duty done, is this foursome at the Houston meeting: (left to right) J. W. Dunning, Zenas Block, F. B. White, and R. C. Giese.

fred E. Parker, Eastern Regional Research Laboratory, reported that the use of urea complexes in the purification of fatty acids was not as efficient as solvent crystallization but more convenient, and a paper by J. A. Cannon, K. T. Zilch, and H. J. Dutton, Northern Regional Research Laboratory, described the countercurrent solvent extraction process for separating methyl esters of various fatty acids. From the partition coefficients, calculations of the requirements for separation of



SPEAKERS—"It was this long," H. J. Dutton tells his program associates at the close of a technical session in Houston last month. With him are (left to right): Joseph McLaughlin Jr., N. H. Kuhrt, H. R. Suter, R. T. Holman, Raymond Reiser, and Herman Schlenk.

certain binary mixtures of the esters showed variations from a few transfer units to as many as 2,000. R. T. O'Connor of the Southern Research Laboratory gave the results of a study of the applicability of the spectrophotometric method for the analysis of polyunsaturated fatty acids in cottonseed oils.

Three papers on monoglycerides were given. N. H. Kuhrt and E. A. Welch, Distillation Products Industries and the University of Rochester, told of experiments which showed that lard contained appreciable quantities of monoglycerides and that monoglycerides were produced from lard during the baking of bread. By the use of a synthetic glyceride containing C_{14} labeled glycerol, Raymond Reiser, Texas A & M College, found that over half of the glyceride was hydrolyzed to monoglycerides in the intestinal tract of rats, and N. H. Kuhrt, E. A. Welch, and E. S. Nasset determined large quantities of monoglycerides from the human intestinal tract after ingestion of fats containing only slight amounts of monoglycerides.

THREE papers were given on the inhibition of oxidation of edible oils. Hector Flores and Roy E. Morse, Monsanto Chemical Company, described studies on oxidation of the condensation products of ethylene oxide and several unsaturated fatty acids. Absence of rancid odor and peroxide values were noted although oxidation was proved to exist. The mechanics of the destruction of propyl gallate and hydroxyanisol during oxidizing of lard were related in a paper by J. H. Mahon and R. A. Chapman, Department of National Health and Welfare, Ottawa, Canada. John R. Compton, University of Colorado, found that the osage orange fruit contained valuable antioxidants of which pomiferin was identified as the main effective material.

In the drying oil field a paper by R. F. Paschke, W. Tolberg, and D. H. Wheeler, General Mills Inc., presented evidence of the isomeric structures of α and β eleostearic acid. An excellent color movie was shown to demonstrate by models the types of structural isomers and their properties. A study of the copolymers of styrene with the methyl esters of five fatty acids was described by S. A. Harrison and W. Tolberg, General Mills Inc. They concluded that the esters of non-conjugated fatty acids retarded polymerization and served as chain terminators. Oliver Grummitt and Dean Marsh, Sherwin Williams Company, described experiments on the dehydration of castor oil with maleic anhydride and also with alumina. The effect on the degree of conjugation and properties of the derived acids was given. The development of a valuable new product by the acetylation of glycerol monostearin was described by R. O. Feuge, E. J. Vicknair, and N. V. Lovegren, Southern Research Laboratory. The acetostearin products have valuable plastic properties and resist oxidation. They are suggested for protective food coatings.

W. D. HARRIS

CENTRAL SCIENTIFIC COMPANY, Chicago, Ill., has produced a new instrument called a moisture balance. It employs a new principle in drying samples by infrared radiation and precisely detects the moisture content of a commodity in five to a maximum of 15 minutes. This instrument will save time in determining the moisture content of commodities ranging from cereal grains to foundry sands and detergents.

The appointment of David J. Bunnell as general manager of the buying division, LEVER BROTHERS COMPANY, New York City, has been announced. Mr. Bunnell, who will be in charge of the buying of fats and oils at the New York headquarters of the company, joined Lever Brothers Company in 1948 and has been located at the Chicago office of the buying division.