

## Technical Program Announced for Memphis Meeting in April

"FROM ALL INDICATIONS the spring meeting in Memphis will have a bang-up technical program with many excellent papers already in and others promised, for which we do not have final titles at the present time," reports S. J. Rini, HumKo Company, Memphis, who is program chairman for the 49th annual meeting of the American Oil Chemists' Society in Memphis at the Peabody hotel, April 21-23, 1958.



**C. E. McMichael**

Jack Krumbein, Newport Industries Company, Pensacola, Fla., has been arranging for a tall oil symposium, with the following results:

Statistics of the Tall Oil Industry, by R. H. Potts and M. L. Sheely, Armour and Company, Chicago, Ill.

Continuous High Yields of Crude Tall Oil from Soap Skimmings, by T. H. Little, Sharples Corporation, Philadelphia, Pa.

Continuous Acidulation Process for Tall Oil, by F. E. Sullivan, De Laval Separator Company, Poughkeepsie, N. Y.

Production Method for the Manufacture of Crude Tall

Oil and Its Subsequent Processing, by F. B. White, Foster Wheeler Company, New York; E. O. Barnes, Union Bag-Camp Paper Company, Savannah, Ga.; and R. H. Potts, Armour and Company, Chicago, Ill.

Inexpensive Apparatus for Fractional Distillation of Tall Oil and Related Products Without Bubblecaps or Packing: Complete Separation, by Andrew Spence, Spence and Green Chemical Company, Crosby, Tex.

Corrosion Testing and Corrosion Problems in Processing of Tall Oil, by Harold C. Templeton, Alloy Steel Products Company

Treatment of Tall Oil Products with Sulphur Dioxide, by M. E. Hannah, W. M. Sale, and A. F. Wicke, Heyden-Newport Chemical Corporation

A number of papers cover the use of tall oil and its derivatives, Mr. Rini continues:

The Nomenclature of Tall Oil and Its Derivatives, by E. H. Sheers and B. D. Beckman, American Cyanamid Company, Stamford, Conn.

Methods of Analysis for Tall Oil Products, by Richard Herringer, Arizona Chemical Company, Panama City, Fla.

Mixture of Tall Oil and Other Fatty Acids in Conventional and High Polymer Alkyds, by W. M. Kraft, G. T. Roberts, and D. Staff, Heyden-Newport Chemical Corporation

Large-Scale Recovery and Uses of a Lanolin-type of Material from Tall Oil, by M. G. Bestal, I. A. Stine, and J. C. McManus, West Virginia Pulp and Paper Company

Use of Tall Oil Fatty Acids in Isophthalic Alkyd Formulations, by Remy Burkel and R. W. Stephenson, Oronite Chemical Company

Monomer and Amino Resins Modification of Tall Oil Fatty Acid Alkyds, by W. M. Kraft and A. Forschirm, Heyden-Newport Chemical Corporation

Mr. Rini indicates also that D. R. Zilversmitt of the University of Tennessee has gathered together a group of papers which will be of the greatest interest to all in the field of edible fats and fatty foods. These deal with many phases of the research now going on with respect to the atherosclerosis problem and include:

Effects of Some Dietary Components on Cholesterol Metabolism, by David Kritchevsky, Wistar Institute

Separation of Lipide Classes with Special Emphasis on Silicic Acid Chromatography, by Jules Hirsch, Rockefeller Institute for Medical Research

Mechanism of Cholesterol Absorption, by Carleton R. Treadwell, George Washington University

Analytical Methods for Chemical and Radio-assay of Lipide Classes, by E. Van Handel, University of Tennessee

Fat Transport Mechanism, by Duncan L. McCollester, National Institutes of Health

Use of Gas Chromatography in the Separation of Fatty Acid Esters, by C. H. Orr, Procter and Gamble Company

Processing and process engineering papers, in addition to those on tall oil, will be presented in a session with C. E. McMichael, Girdler Process Equipment Division, Louisville, Ky., as chairman. Mr. Rini reports that these should be of particular interest to production and design people:

Self-cleaning Centrifuge for Processing Oils, by A. J. Lieberman

Flash Desolventizer Operation to Produce Soybean Protein Flakes, by O. L. Brekke, G. C. Mustakas, M. C. Raether, and E. L. Griffin, Northern Regional Research Laboratory, Peoria, Ill.

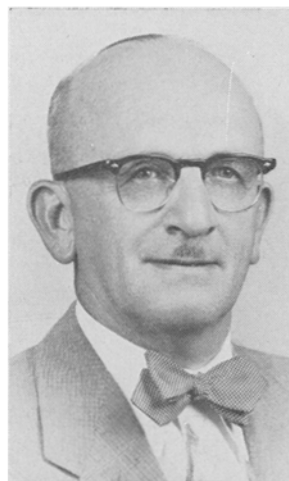
Continuous Low-temperature Animal Fat Rendering, by F. E. Sullivan, De Laval Separator Company, Poughkeepsie, N. Y.

Evaluation of Refined Cottonseed Oils in Storage: a Preliminary Report on the Economic Aspects of the Storage of Vegetable Oils, by L. A. Baumann, U.S.D.A., Washington, D.C.

Papers such as that by David Hull and Leonard Smith, National Cotton Council of America, Washington, D. C., will be of importance to the entire Society, Mr. Rini believes. The chemistry and analysis of fats and fatty materials will be well covered in papers such as:

Glyceride Structure of Vegetable Oils by Countercurrent Distribution. IV. Safflower Oil, by C. R. Scholfield and H. J. Dutton, Northern Regional Research Laboratory, Peoria, Ill.

Bulk Sampling of Soybean Oil Meal, by V. B. Shelburne and R. L. Reynolds, Spence Kellogg and Sons Inc., Buffalo, N. Y.



**R. H. Potts**



**F. B. White**



**Richard Herrlinger**



**H. J. Dutton**

Antioxidant Activity of Quercetin, by R. V. Pozina, Weyerhaeuser Timber Company

Tocopherol Oxidation in Fats. II. Hydrogenated Soybean Oil, by C. D. Evans, E. N. Frankel, and Patricia M. Cooney, Northern Regional Research Laboratory, Peoria, Ill.

Improved Techniques for Judging Fat Stability by the Oxygen Bomb Method, by B. N. Stuekey, Eastman Chemical Products, Kingsport, Tenn.

Selective Hydrolysis of Soybean Oil Phosphatides, by R. E. Beal, Northern Regional Research Laboratory, Peoria, Ill.

Castor Polyols for Methane Foams, by Arthur Ehrlich, M. K. Smith, and T. C. Patton, Baker Castor Oil Company, Bayonne, N. J.

Reaction of Unsaturated Fatty Alcohols. VI. Guerbet Reaction with Soybean and Linseed Alcohols, by L. E. Gast, E. D. Bitner, J. C. Cowan, and H. M. Teeter, Northern Regional Research Laboratory, Peoria, Ill.

The social program for the Memphis meeting will include a mixer on Sunday evening, sponsored by the Woodson-Tenent Laboratories; a cocktail party sponsored by HumKo, followed by a buffet supper and entertainment on Monday evening, also the Past Presidents' dinner at the home of Mr. and Mrs. J. R. Mays Jr., assisted by Mrs. G. W. Agee; and the banquet on Tuesday, for which Don Reid's orchestra will play. Plant trips and the annual golf tournament are also planned.

A fashion show and luncheon at the Ridgeway Country club is arranged for the ladies by Mrs. Rini and her committee, also a boat trip on the Memphis Queen on the Mississippi river.

Monday morning will be devoted to annual reports. On Sunday the outgoing Board will meet, with H. C. Black presiding; at the end of the three-day session the incoming Board will convene, with J. C. Konen presiding. Allen Smith, Perkins Oil Company, Memphis, is general chairman.



**C. D. Evans**



**J. C. Cowan**

# ANNOUNCING CROLL-REYNOLDS' NEW Convactor

If you never heard of a CONVACTOR, do not be surprised. It is an entirely new design of special condensing tower which offers important processing advantages.

In the refining of edible oils it recovers fatty acids, most of which were formerly waste. It offers another advantage of totally eliminating stream pollution from this source or the expense of cleaning cooling towers which collect such deposits. It has similar application in fatty acid stills, some other types of distillation processes, dryers, and other large vacuum processing units.

The CONVACTOR is a combination of two condensers and a vacuum cooling chamber. One condenser is of conventional barometric design, the other a highly improved condenser working on the jet principle. The latter condenses the vapor from the process and discharges directly into the vacuum cooling compartment for the immediate removal of condensation heat. The cold water is then recirculated through the same jet condenser. The flashed vapor from the cooling operation is condensed in a conventional barometric condenser using water from a river, cooling tower or other industrial source. Periodic blow-down or continuous bleed-off from the flash chamber permits recovery.

Several large industrial installations have been made.

It is significant that this new contribution to vacuum equipment should come the year we are celebrating our Fortieth Anniversary.

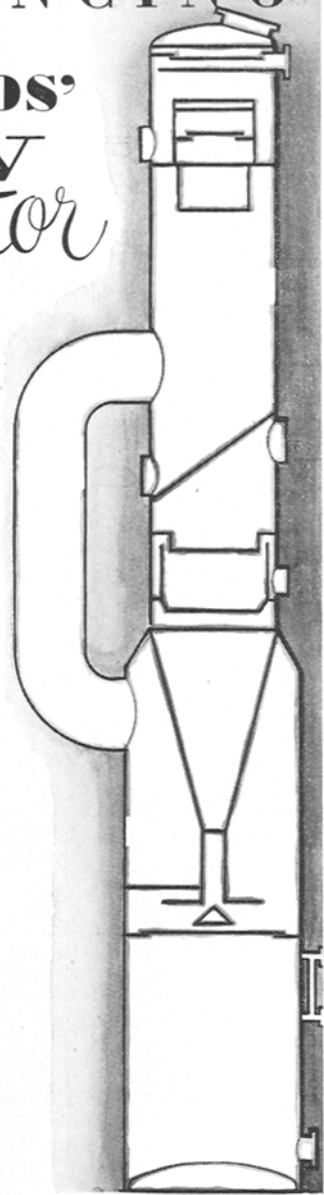


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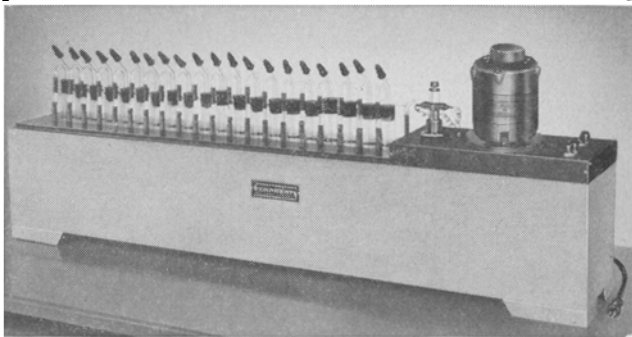
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**Mercury Regulator—Electronic Relay  
High Operating Temperatures—95° to 115°C  
Air pre-heating prevents sample cooling**

Designed by E. H. Sargent & Co. for use in the determination of relative stability or keeping quality of lards, fats and oils, based on the formation of peroxides and aldehydes in the process of oxidative decomposition.

Adopted as standard, company-wide equipment by principal packing firms. This improved apparatus is now offered with a highly sensitive and extremely reliable temperature regulating system employing an adjustable mercury thermoregulator and the Sargent electronic relaying system.

The apparatus consists of a thermostatically controlled bath to maintain the samples at operating temperature, a pre-heating and distribution system to condition and regulate air passing through the sample, and twenty aeration tubes.



The mineral oil heating bath is contained in a sheet metal tank and is heated by three electrical immersion heaters supplying, respectively, auxiliary power for rapid attainment of operating temperature, constant power to supply in part that heat normally lost through conduction and radiation, and intermittent heat to an extent determined by the thermoregulator. Oil circulation to ensure uniformity of temperature is accomplished by a centrifugal immersion pump. Operating temperature may be adjusted over the range of 95° to 115° C with a regulation of  $\pm 0.1^\circ$  C.

The air distribution system consists of a glass manifold suspended from the cover and surrounded by the heating medium. Outlet tubulatures extend through the cover to each aeration position and are connected by segments of Neoprene rubber tubing through capillary orifices standardized at 2.33 milliliters of air per second. Inlet to the manifold is through a one-fourth inch diameter glass tube of which a forty inch section is immersed in the heating bath and which terminates in a tee connection at the cover.

Aeration tubes are 25x200 mm, Pyrex brand test tubes equipped with rubber stoppers carrying inlet and outlet tubes oriented for convenience in connection to the manifold and in organoleptic testing.

Length, 42 inches; width, 7½ inches; total height, 14¼"; maximum power consumption, 1100 watts.

**S-63940 OIL STABILITY APPARATUS** — Fat, Peroxide Method, Thermostatic, Electric. Complete with twenty aeration tubes, capillary orifices, pressure regulating columns and cord and plug for attachment to standard outlets but without wet test meter or gas purification train. For operation from 115 volt, 60 cycle A.C. circuits .....\$400.00

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A GROUP of sectional leaders from the solvent extraction subcommittee of the Technical Safety Committee met January 6, 1958, at the LaSalle hotel in Chicago to discuss revised Tentative Standard for Solvent-Extraction Plants N.F.P.A. No. 36-T. Present were A. E. MacGee, Skelly Oil Company, chairman of the Technical Safety Committee; P. R. Sheffer, Corn Products Refining Company, chairman of the solvent extraction subcommittee; and N. H. Witte, Central Soya Company, chairman of the task group appointed to study 36-T.

Others, each representing a study group assigned to a chapter of the standard, were R. P. Hutchins, French Oil Mill Machinery Company; E. B. Rumble, "Automatic" Sprinkler Corporation of America; F. P. Parkin, Borden's Soy Processing Company; J. E. Miller, Spencer Kellogg and Sons Inc.; H. E. Marxhausen, Cargill Inc.; M. R. Wingard, Davidson-Kennedy Associates Company; and W. F. Bollens, Swift and Company. The insurance expert of Swift and Company, G. A. Quandee, also attended.

Much of revised 36-T was acceptable to those at the all-day session and to the other members of the task group whom they represented. A number of recommendations for changes were developed however, based on the work of the entire task group, and it was believed by those present that their adoption would make the standard much more readily acceptable to the A.O.C.S. committee.

The recommendations of the subcommittee were carried by Dr. MacGee, representing the A.O.C.S., to a meeting of the sectional committee on solvent extraction of the National Fire Protection Association, held January 20 in New York. Also present at that meeting was H. D. Fincher, of Anderson, Clayton and Company, who is a member of the Technical Safety Committee and officially represents the National Cottonseed Crushers' Association on the N.F.P.A. sectional committee.

At this meeting, upon the recommendation of Dr. MacGee and Mr. Fincher, the N.F.P.A. sectional committee agreed to continue 36-T as a tentative standard for another year but in the meantime to revise it to incorporate some of the ideas and recommendations developed by the Technical Safety Committee task group.

A collaborative effort with the N.F.P.A. sectional committee in the development of a standard for the construction and general operating practices of solvent extraction plants, this booklet 36-T, has been a major project of the Technical Safety Committee.

It is planned for the spring meeting in Memphis to relate these activities to the main body of the Technical Safety Committee. Pertinent suggestions have been made regarding safety phases not covered by N.F.P.A., such as waste-water disposal and personnel screening, which likewise will be open for discussion. It is hoped that members will feel free to present ideas so that the A.O.C.S. safe-practices recommendations will be not only useful but highly desirable.

## Survey Waste-Water Disposal

A SURVEY of extraction-plant waste-water treatment and disposal has recently been made by means of a questionnaire sent to the members of the Technical Safety Committee, of which A. E. MacGee, Skelly Oil Company, Kansas City, Mo., is chairman. It was prepared by W. F. Bollens, Swift and Company, Chicago, of Group I of the subcommittee on solvent extraction, for which Paul Sheffer, Corn Products Company, Argo, Ill., is chairman. Head of Group I is Norman H. Witte, Central Soya Company, Decatur, Ind.

Answers in response to the questionnaire covered 30 plants and showed great interest in the safe disposal of waste water from solvent-extraction units. Results have been summarized and sent to the members of the Technical Safety Committee of the American Oil Chemists' Society.