# Los Angeles Program Is Completed

**C** OMPLETION of all phases of planning for the 33rd fall meeting of the American Oil Chemists' Society at the Statler Hilton hotel, Los Angeles, September 28-30, 1959, is announced by Roger Olson and Fred Sawyer, publicity co-chairmen. The technical program, in charge of Roslyn B. Alfin-Slater, will include 54 papers, presented in two sessions Monday, one on Tuesday morning, and two on Wednesday.

Plant tours are being arranged for Tuesday afternoon. Among the plants to be visited are the Beckman Instrument Company, producers of technical tools for a range from fatty acids to rockets, and the Peterson Rendering and Manufacturing Company. The latter is known for high standards of production through the use of ingenious methods of material movement and technical control, including a closed circuit television.

#### **Technical Program**

- 1. Polymerization of Linseed Oil in an Electric Discharge, by C. Boelhouwer, T. Hoekstra, H. I. Waterman, and J. B. Westerdizk with the collaboration of J. van Dam and A. J. Kruidenier, Delft University, Delft, Holland
- 2. A Novel Continuous Countercurrent Epoxidation Process, by H. K. Latourett, H. M. Castrantas, R. J. Gall, and L. H. Dierdorff, Becco Chemical Division, Food Machinery and Chemical Corporation, Buffalo, N. Y.
- 3. Lipid Composition of Liver Parenchymal and Kupffer Cells and Hepatic Uptake of Administered Lipid, by N. R. Di Luzio, University of Tennessee, Memphis
- 4. Factors Affecting Particle Size in the Freezing and Thawing of Fat Emulsions, by W. S. Singleton, Ruth R. Benerito, and J. L. White, Southern Regional Research Laboratory, New Orleans, La.
- 5. Additional Properties of Diglyceride Esters of Succinic and Adipic Acids, by R. O. Feuge and T. L. Ward, Southern Regional Research Laboratory, New Orleans, La.
- 6. Vinyl Ketostearates. Preparation, Properties, Infrared Spectra, and Analyses of 4- and 12-Ketostearates, by Roberto Calderon, H. P. Dupuy, E. R. McCall, R. T. O'Connor, and L. A. Goldblatt, Southern Regional Research Laboratory, New Orleans, La.
- 7. Reaction of Fatty Acids with Methyl Taurine, by L. W. Burnett, General Aniline and Film Corporation, New York
- An Ultramicro Technique for the Measurement of Peroxides in Lipids, by Malcolm I. Peterson, Rockefeller Institute, New York

- 9. Evaluating Refined Cottonseed Oils Under Various Conditions of Storage in Drums, by L. A. Bauman, U.S.D.A., Washington, D. C.
- Quantitative Determination of Short-Chain (Ca-Ce) Fatty Acids by Gas-Liquid Chromatography, by Burton M. Craig, Prairie Regional Laboratory, Saskatoon, Saskatchewan, Canada
- 11. Gross Changes in Total Lipid in Flax and Safflower Seeds and Tissue as the Plants Progress from Fertilization to Maturity, by R. P. A. Sims, Canada Department of Agriculture, Ottawa, Ontario
- 12. The Effect of Relative Concentrations on the Efficiency of Separation of Polar and Nonpolar Lipids by Alumina-Column Chromatography, by R. P. A. Sims, Canada Department of Agriculture, Ottawa, Ontario
- The Intensity, Stability, and Absorption Spectra of Heteropoly Blue Prepared by Various Reduction Procedures, by R. P. A. Sims, Canada Department of Agriculture, Ottawa, Ontario
- Some Observations on Synergistic Effects of Amino Compounds on Phenolic Antioxidants, by H. S. Olcott and E. J. Kuta, University of California, Berkeley
- The Selective Hydrogenation of Linolenic Acid, by J. G. Willard, Maria Louisa Marinez, and W. H. Storey, Southwest Research Institute, San Antonio, Tex.
- Aliphatic Urethane. Effect of Chain Length on Some Physical Properties, by Sol Shulman, M. W. Formo, and A. E. Rheineck, Archer-Daniels-Midland Company, Minneapolis, Minn.
- 17. Effect on Fat Tissues of Excess Saturated Fatty Acids in the Diet, by D. C. Herting and N. D. Embree, Distillation Products Industries, Rochester, N. Y.
- Nutritional Effects of Fresh Fats Added to Oxidized Cottonseed Oil, by Hans Kaunitz, C. A. Slanetz, and R. E. Johnson, Columbia University, New York, and V. K. Babayan, E. F. Drew and Company Inc., Boonton, N. J.
- Thermal Dimerization of Fatty Ester Hydroperoxides, by E. N. Frankel, C. D. Evans, and J. C. Cowan, Northern Regional Research Laboratory, Peoria, Ill.
- Reactions of Unsaturated Fatty Alcohols. X. Some Copolymers of Nonconjugated Linseed Vinyl Ethers, by W. J. De Jarlais and H. M. Teeter, Northern Regional Research Laboratory, Peoria, Ill.
- 21. Reactions of Unsaturated Fatty Alcohols. XI. Preparation of Unsymmetrical Acetals and Their Conversion to Vinyl Ethers, by W. J. De Jarlais, J. L. O'Donnell, and H. M. Teeter, Northern Regional Research Laboratory, Peoria, Ill.
- The Oxidation of Lipid Film on Solid Surfaces, by H. J. Togashi, R. B. Koch, and A. S. Henick, Quartermaster Food and Container Institute, Chicago, Ill.
- Preparation of Nonconjugated Linseed Vinyl Ether by Vinyl Transesterification, by O. L. Brekke and L. D. Kirk, Northern Regional Research Laboratory, Peoria, III.



W. S. Singleton



Hans Kaunitz





B. M. Craig

**Raymond Reiser** 



HOLLYWOOD BOWL—This is the famous home of "Symphonies Under the Stars," which may be visited by members and friends of the American Oil Chemists' Society during their September trip to Los Angeles.

- 24. Quantitative Analysis of Fatty Alcohols by Gas Chromatography, by K. P. Dimick and Tao-Zuen Chu, Wilkens Instrument and Research Inc., Walnut Creek, Calif.
- 25. Comparison of GLPC Polyester Packings, by K. P. Dimick and Tao-Zuen Chu, Wilkens Instrument and Research Inc., Walnut Creek, Calif.
- 26. The Chloroisocyanuric Acid Compounds as Bleaching and Sanitizing Agents, by R. L. Liss and T. B. Hilton, Monsanto Chemical Company, St. Louis, Mo.
- Centrifugal Upgrading of Inedible Tallow and Grease, by T. H. Little and F. P. Downing, Sharples Corporation, Philadelphia, Pa.
- Amides of alpha- Sulfonated Fatty Acids, by J. K. Weil, A. J. Stirton, and R. G. Bistline Jr., Eastern Regional Research Laboratory, Philadelphia, Pa.
- 29. Separation of Hydroxy Acid Methyl Esters by Gas Chromatography, by K. P. Dimick, Wilkens Instrument and Research Inc., Walnut Creek, Calif.
- Oxidation of Oleic Acid at High Pressures and Temperatures, by Constance Willard Gould and R. W. Cohen, Stanford Research Institute, Menlo Park, Calif.
- Acidolysis of Vegetable and Marine Oils with the Phthalic Acids, by E. F. Carlston, California Research Corporation, Richmond, Calif.
- 32. Removal of Fatty Soil from Glass-Electrolyte Detergent-Builder Effect, by R. M. Anderson, J. Satanek, and J. C. Harris, Monsanto Chemical Company, Dayton, O.
- Cholesterol Vehicle in Experimental Atherosclerosis, by David Kritchevsky, Wistar Institute of Anatomy and Biology, Philadelphia, Pa.
- Sulfates of Ethoxylated Tridecyl Alcohol in Dishwashing, by Wayne C. Schar, Enjay Laboratories, Linden, N. J.
- 35. Studies in the Development of Antibacterial Surfactants. I. Institutional Use of Antibacterial Fabric Softeners, by W. M. Linfield, J. C. Sherrill, R. E. Casely, D. R. Noel, and G. A. Davis, Armour- and Company, Chicago, III.
- 36. Studies in the Development of Antibacterial Surfactants. II. Performance of Germicidal and Deodorant Soaps, by W. M. Linfield, R. E. Casely, and D. R. Noel, Armour and Company, Chicago, III.
- 37. Gas Chromatography as a Means of Quantitatively Estimating Mono-, Di-, and Triglycerides Derived from Coconut Oil, by V. R. Huebner, Armour and Company, Chicago, Ill.
- Analysis of Surfactant Mixtures, by L. E. Weeks, J. T. Lewis, and T. C. Tesdahl, Monsanto Chemical Company, St. Louis, Mo.
- Residual Solvent in Solvent-Extracted Meals, by E. A. Gastrock, Ross Brian, and J. J. Spadaro, Southern Regional Research Laboratory. New Orleans, La.
- 40. Detoxification and De-allergenization of Castor, by H. K. Gardner Jr., E. L. D'Aquin, S. P. Koltun, H. L. E. Vix, and E. A. Gastrock, Southern Regional Research Laboratory, New Orleans, La.

- Direct Solvent-Extraction of Jojoba Seed, by J. J. Spadaro, Joseph Pominski, A. J. Crovetto, and E. A. Gastrock, Southern Regional Research Laboratory, New Orleans, La.
- Preparation of Varnish and Varnish Type of Vehicles Containing Tung Oil, by P. H. Eaves, J. J. Spadaro, and E. L. Patton, Southern Regional Research Laboratory, New Orleans, La.
- Yatton, Boutern Regional Research Rabitatory, New Orleans, La.
  Tung Oil-Resin Varnish Vehicle: Preliminary Cost Analysis, by K. M. Decossas, S. P. Koltun, E. F. Pollard, and E. L. Patton, Southern Regional Research Laboratory, New Orleans, La.
- 44. Effect of Temperature on Critical Micelle Concentration, by M. E. Ginn, F. B. Kinney, and J. C. Harris, Monsanto Chemical Company, Dayton, O.
- The Fatty Acid Composition of Clothes Soil, by W. C. Powe and W. L. Marple, Whirlpool Corporation, St. Joseph, Mich.
- 46. Solvent Hydrogenation of Cottonseed Oil, by Lyle F. Albright, Chen-Hsuan Wei, and J. M. Woods, Purdue University, Lafayette, Ind.
- Isolation and Analysis of Polyunsaturated Fatty Acids, by O. S. Privett, E. Christense Nickell, and W. O. Lundberg, Hormel Institute, Austin, Minn.
- Studies on the Yellowing of Protective Coatings, by O. S. Privett, M. L. Blank, J. B. Covell, and W. O. Lundberg, Hormel Institute, Austin, Minn.
- 49. Methods of Detection and Estimation of Natural Epoxy Acids and Esters, by L. J. Morris and R. T. Holman, Hormel Institute, Austin, Minn.
- The Dynamic State of Tissue Lipids, by Raymond Reiser, Texas A & M College, College Station, Tex.
- Metabolic Studies of Polymerized Fats, by R. L. Shull, L. A. Gayle, R. D. Coleman, and Roslyn B. Alfin-Slater, University of Southern California, Los Angeles
- 52. Confectionery Fats. I. Preparation by Interesterification and Fractionation, by J. J. Spadaro, N. V. Lovegren, and P. O. Feuge, Southern Regional Research Laboratory, New Orleans, La.
- Continuous Refining of Crude Coconut Oil in a Pressure System, by F. E. Sullivan, De Laval Separator Company, Poughkeepsie, N. Y.
- Determination of Some Factors Influencing Soap Detergency Evaluations, by Walter Brooks and Robert B. Hull, Los Angeles Soap Company, Los Angeles, Calif.

A mailing to the membership will supply advance registration forms and pertinent convention information. Registration chairman is Richard W. Atwood, Pilot California Company, Los Nietos; on the advisory committee is John Morrisroe, of the same company, Los Angeles.

Exhibits for the meeting are in charge of Joseph Michaelson, Applied Biological Sciences Laboratory, and of Harold Gilmore, consultant. Mrs. L. O. Leenerts, ladies' chairman, has arranged a diverting program of events for the three-day period. A post-con-





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Chicago, Ill.

## • New Books

FREE RADICALS: AN INTRODUCTION, by A. F. Trotman-Dickenson (John Wiley and Sons Inc., New York, 135 pp., 1959, \$2.50). As the title of this brief work suggests, the subject of free radicals is not covered in an encyclopedic fashion. The author however has discussed the main aspects of this important and rapidly growing field in a concise and lucid way. If one is interested in obtaining a broad view of the field and beginning work on free radicals, this book is highly recommended as a jumping-off point. For its size the book is adequately documented with literature references, and it also contains a section at the end listing major publications and books on free radicals for those who wish to delve more deeply into the subject. There is not much here for the lipid chemist; the brief section on autoxidation is probably the most valuable and summarizes the present status of olefin autoxidation. The book is well-printed, easy to read, and free of errors.

DANIEL SWERN, Eastern Regional Research Laboratory, Philadelphia, Pa.

Analyse der Fette und Fettprodukte Einschließslich DER WACHSE, HARZE, UND VERWANDTER STOFFE I ALLGE-MEINER TEIL, II SPEZIELLER TEIL, by H. P. Kaufmann (Springer-Verlag, Berlin, I, 1104 pp.; II, 712 pp.). This treatise covering analyses of fats and fat products including waxes, resins, and related materials is divided in two parts. The first volume, "General Part," contains chapters on isolation and refining of vegetable and animal fats, a



discussion of fat chemistry and of fat analyses. The second volume, "Special Topics," covers a large variety of analyti-cal procedures for fats. The volumes actually cover a much larger area than analytical procedures; many fields of chemistry and technology involving fats are included.

Professor Kaufmann as editor-in-chief has a number of eminent co-authors for the various chapters. The purpose of these volumes is to provide up-to-date information and references in the field of fats and oils, particularly with respect to analyses. This has been accomplished exceedingly well, and the volumes are invaluable to chemists, biologists, pharmacists, and others concerned with analytical procedures of fats. Special consideration is given to the German Standard Methods of Fat Analysis and to our Official and Tentative A.O.C.S. Methods.

The printing and binding of these volumes are of the usual high quality of the Springer textbooks. A few minor misprints were noticed. The authors do not state to what date literature references were considered, but it appears that most of the literature through 1957 and some of 1958 is included. With more than 10,000 references the text is exceedingly well-documented. New methods, such as gas chromatography, are included and brought to the state of knowledge of early 1958. Tables and graphs as well as drawings of special equipment are used extensively. A name, subject, and patent index covering both volumes is found in Volume II.

Without going into details of the various subjects included in these volumes a quick survey of the chapter headings will give an idea of the coverage. Volume I has chap-ters on the constitution of fats and of their building blocks, on chemical modifications of fats, on by-products (hydrocarbons, sterines, lipochromes, phosphatides), and on the chemistry of natural waxes and resins. Chapters on analyses of these materials complete Volume I. The Special Topics volume has a chapter on microscopic examinations of animal and of vegetable fatty materials and is then divided into a section on edible fat analysis and one on industrial fat analysis. The edible fats are subdivided into animal and vegetable fats, hydrogenated fats, margarines, emulsions, synthetic fats, milk fats, cocoa butter, and problems of fat spoilage. The industrial fat section includes fats for textiles, soaps and soap products, synthetic detergents, sulfonated fats, and protective coatings. The last section covers analyses of the fatty constituents, resins, solvents, plasti-cizers, and siccatives, also of the finished products. Chapters on Factis (products from unsaturated oils and sulfur), on fats for the leather industry, and on wool fats follow. Qualitative and quantitative analyses of glycerol and polyfunctional alcohols complete this volume.

The treatise of Kaufmann is unique in its comprehensiveness. It is a must for a chemical library and of greatest help to chemists who are concerned in any way with fats or their derivatives.

HANS WOLFF, A. E. Staley Manufacturing Company, Decatur, Ill.

#### Obituaries

Rex W. Perry, one of the charter members of the American Oil Chemists' Society, died recently in Lo Jolla, Calif. He had been in ill health for some time. Mr. Perry was president of the Society in 1919.

Edward Randa (1945), manager, technical sales service department, Soap Division, Armour and Company, Chicago, Ill., died May 1, 1959, at the age of 59. He had been ill about a year. He had been a member of the Soap and Synthetic Detergent Analysis Committee of the American Oil Chemists' Society since 1946 and was active on various subcommittees.

Friends of C. P. A. Kappelmeier of Oegstgeest, Holland, will be saddened to learn of his death on March 29, 1959. He had been chairman of the board of editors of Verfkroniek from 1936 until a few months before his death. The standardization of paint raw materials was his major interest, and as president of the ISO/TC 35 committee he actively promoted international cooperation. Information about his death was sent by H. W. Talen of Verfinstitut T.N.O., Delft.



The Tecam Gelation Timer, used for determining the gelation time ("pot-life") of synthetic adhesives, silica sols, dry-ing oils, plastics, and other liquids that gel, relieves laboratory personnel of a tedious, time-consuming tedious, time-consuming task, eliminates uncertainties inherent in subjective tests, and can be left working over-night and on week-ends. More information is available from Arthur S. LaPine and Comfrom pany, 6001 S. Knox ave-nue, Chicago 29, Ill.

vention tour to Hawaii is another possibility for those who notify H. C. Bennett, general chairman, who is with the Los Angeles Soap Company.

The Governing Board will meet on Sunday, with N. D. Embree, president, in the chair. The special business session will be held Wednesday at 1:30 p.m.

### Problem Corner

Question

December 16, 1958

We are writing to ask your help on a problem which relates to fatty acids obtainable from coconut oil.

These fatty acids are obtained from splitting with sulphuric acid the soap stock derived from the refining of the crude coconut oil. The problem which we have is twofold, relating to: a) color and b) solubility of NaCl solution. We are not in a position to carry out extensive experiments on these fatty acids and wondered whether you might be able to give us some information which would help us along the following lines.

We would like to know the best means of bleaching this type of oil. From observation it would seem that, when stored in an iron drum, the color gets increasingly dark until it becomes around the range of 23-25 F.A.C. standard. We have also noticed that when the dark oil is left in a test tube exposed to sunlight for a matter of hours, the color reduces itself considerably and becomes somewhat reddish and not really comparable with any of the F.A.C. standards. The original color of freshly made fatty acids is about 13-15 F.A.C.

In carrying out a small experiment in our own laboratory, we have found that these fatty acids, when saponified, require about 20% salt before the soap will "grain" or be-come insoluble. This agrees with what happens in our kettles when we attempt to mix about 10% of fatty acid into our formula for soap. We find that a considerable portion of soap remains suspended in our hot lyes (which normally contain about 11% NaCl). Some of this solidifies out when the lyes cool, but some still remains in solution and has to be again displaced by H2SO4 in the glycerine plant.

We are not sure whether there is anything that can be done in order to change the solubility of this product. We do not think so, but we would like you to confirm whether what we have stated above is in agreement with the knowledge that you have as to these fatty acids.

We would take this opportunity to thank you for your service in the past and to wish your organization continued success for the coming year.

From BARBADOS

#### January 6, 1959

As long as this type of fatty acids is stored in iron drums, it seems very foolish to attempt to do any bleaching because the iron will be attacked by the fatty acids. It would be much better to store in lined drums or in any other type of container which is noncorrosive. If this is done and a better color is desired, we suggest bleaching with activated fuller's earth and activated carbon.



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## • New Literature

HYDROGENATION CATALYST BULLETIN. New information and previous uses of the G-43 platinum-base hydrogenation catalyst in commercial applications. Girdler Catalysts, Box 337, Louisville 1, Ky.

COMBINED GENERAL AND INTER-JOINT CATALOG 59. Combines the entire SGA line of laboratory apparatus, instruments, appliances, standard glassware, "Inter-Joint" glassware and general supplies into one 1567-page volume. Scientific Glass Apparatus Company Inc., Bloomfield, N.J.

VYCOR. Bulletin B-91 giving physical properties and typical applications of Vycor glassware. Corning Glass Works, Technical Products Division, Corning, N.Y.

USE OF CATALYSTS IN PREPARATION OF NEOPENTYL GLYCOL POLYESTERS. A 10-page report covering recent work in the catalytic reaction of neopentyl glycol with dibasic acids to form hydroxy terminated polyesters. Eastman Chemical Products Inc., 260 Madison avenue, New York 16, N.Y.

INDUSTRIAL FLOORS: HOW TO CLEAN AND CARE FOR THEM. Booklet F10593, 10 pages with charts; a list of cleaning compounds, and descriptions of cleaning methods; methods of sanitizing, stripping wax and paint, and absorbing liquids. Oakite Products Inc., 157 Rector street, New York 6, N.Y.

FREAS CONSTANT TEMPERATURE CABINETS. A 32-page catalog describing Freas constant temperature cabinets. Precision Scientific Company, 3737 W. Cortland street, Chicago 47, Ill.

NEW REYNOLDS REPORTS. Seven laboratory reports on properties and uses of aluminum foil packaging, summarizing research studies of the advantages of aluminum foil for flavor retention, cook-in packages, prevention of frozen food dehydration, overwraps, protective labels, vitamin retention, and vacuum packaging. Reynolds Metals Company, Department PRD-12, Richmond 18, Va.

APPARATUS REVIEW. A 48-page review of new apparatus for the laboratory. Arthur S. LaPine and Company, 6001 S. Knox avenue, Chigaco 29, Ill.

DESIGN AND COST COMPARISON OF HEAT EXCHANGERS USING WOLVERINE TRUFIN. New 19-page catalog explaining where Trufin <sup>®</sup>, the integral finned tube, should be used; how fins affect the design of heat exchangers and fouling factors; and a comparison of Trufin and bare tube exchanger costs. Wolverine Tube, Division of Calumet and Hecla Inc., 17200 Southfield Road, Allen Park, Mich.

TYPICAL PROPERTIES OF ATTAPULGUS CLAY PRODUCTS. Technical Information No. 1002 giving typical properties of the complete line of Attapulgus Clay products in four pages. Minerals and Chemicals Corporation of America, Essex Turnpike, Menlo Park, N.J.

THE PLASTIC BOTTLE COMES OF AGE. An 8-page brochure discussing the market of nondetergent uses for "Hl-fax" containers. Hercules Powder Company, Wilmington 99, Del.

ARMOUR ETHOXYLATED CHEMICALS. The revised 24-page booklet giving the physical properties and emulsification characteristics of the Armour trade-marked ethomeen, ethoduomeen, ethofat, and ethomid. Armour Chemical Division, 1355 W. 31st street, Chicago 9, Ill.

TECHNICAL SERVICE BULLETIN, "SLURRY GRIND." Discussion of an original method for the pigmentation of polyurethane coatings of the prepolymer type in a 14-page bulletin. Technical Service Department, Spencer Kellogg and Sons Inc., Buffalo 5, N.Y.

BROWN FINTURE. Specifications Manual M-100 serving as a 5-page guide for simplifying heat-exchanger specifications by using a single modular hairpin unit for all duties. Brown Fintube Company, 510 Huron street, Elyria, O.

SERVAL CENTRIFUGES. An 8-page folder covering the SS-3 automatic centrifuge, the SS-4 enclosed centrifuge, a tubecollection type of continuous flow system, the Szent-Gyorgyi and Blum system, and a laboratory cabinet, the Omni-Cab. Ivan Sorvall Inc., Norwalk, Conn. "A-TO-Z" ODOR MASK. Brochur containing four pages of information on properties, applications, available types, and prices of "A-to-Z" Odor Masks. Dodge and Olcott Inc., 180 Varick street, New York 14, N.Y.

AMINO ACID BIBLIOGRAPHY. A 10-page bibliography describing possible pharmaceutical uses of the amino acid Histidine. Department 33–154, General Mills Research Laboratories, 2010 E. Hennepin avenue, Minneapolis 13, Minn.

PREPARATIVE GAS CHROMATOGRAPH. Beckman/Scientific and Process Instruments Division, Fullerton, Calif., has developed a preparative gas chromatograph, the Megachrom, as a departure from the recent developments in gas chromatography which have emphasized smaller and smaller samples. Applications include studies on samples as large as 20 ml. of materials which are volatile at temperatures up to  $450^{\circ}$  C.

SIDE-DRAW SAMPLING TUBE. Fisher Scientific Company, Pittsburgh, Pa., offers a new chromatographic gas-sampling tube which simplifies the task of obtaining small samples. The special feature is a short side-arm with a self-sealing rubber cap through which the operator merely thrusts the needle of the syringe.

MODULAR UNITS. Research Specialties Company, Richmond, Calif., recently introduced gas chromatography equipment which permits the changing from one system to another by replacement of one or two modules. Detector systems may be changed readily from direction by thermal conductivity methods to detection by ionization methods or by other techniques. An optional feature of the new modular units is a capillary injection system designed to minimize sample loss with very small samples.

CATALOG OF INSTRUMENTS. Catalog 84, available from Burrell Corporation, Pittsburgh, Pa., lists and describes more than 134 instruments and accessories for gas and vapor chromatography as well as 158 different partitioning agents. The 52-page catalog includes an introduction to chromatography, a review of temperature programming, and curves of typical analyses.

KIMAX TEMPERED GLASS PIPE. A 15-page booklet describing standard pipe and fittings, special fittings, thermometer wells, spacers, valves, joints, flanges, gaskets, accessories, and technical data of the Kimax line of glassware of the Kimble Glass Company. Distributors are the Glass Products Division, Fischer and Porter Company, Hatboro, Pa.

CFC POROUS CERAMIC FILTER ELEMENT. The 2-page Bulletin GEO-515 containing information on the C.F.C. porous ceramic filter element. Commercial Filters Corporation, 2 Main street, Melrose, Mass.

HIGH-VACUUM DISTILLATION EQUIPMENT. Bulletin 3-1/May 1959, describing in 15 pages the entire family of consolidated high-vacuum stills. Consolidated Electrodynamics Corporation, Rochester Division, 1775 Mt. Read blvd., Rochester 3, N. Y.

LABLOG. New 16-page supplement to the Will Lablog, featuring the B and L "StereoZoom" microscopes and the 1959 Precision Freas ovens. Will Corporation, Box 1050, Rochester 3, N. Y.

ALKYL AND ALKYLENE AMINES. A 52-page booklet describing the properties and uses of alkyl and alkylene amines. Union Carbide Chemicals Company, Division of Union Carbide Corporation, 30 East 42nd street, New York 17, N. Y.

POLYETHYLENE, AND OTHER PLASTIC LABORATORY WARE. Bulletin No. 114-A containing 25 pages of information on an assortment of polyethylene, polypropylene, teflon, polystyrene, and other plastic laboratory ware. Arthur H. Thomas Company, Vine street at 3rd, Philadelphia 5, Pa.

FATTY ACIDS IN MODERN INDUSTRY. A 25-page revised edition of the catalog, "Fatty Acids in Modern Industry," including GROCO stearic and oleic acids, tallow fatty acids and glycerides, coconut, and other vegetable fatty acids and glycerine. A. Gross and Company, 295 Madison avenue, New York 17, N. Y.

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**Advantages.** Outstanding selectivity and activity. And, in many applications, maintains selectivity and activity on repeated use far better than other catalysts of this type.

Girdler Catalysts' unsurpassed *quality control* in production of G-53 results in improved uniform performance.

**Properties.** G-53 is a nickel-on-kieselguhr catalyst, dry-reduced and suspended in hardened vegetable oil or tallow, depending on application needs. Consists of approximately 25 weight per cent nickel, 10 weight per cent support material and 65 weight per cent hardened suspending oil. Supplied in granular form, 100% passing through 4 mesh screen. Bulk density approximately 37 pounds per cubic foot.

Try it! Sample and more detailed information will be sent on request.

CATALYSTS FOR: HYDROGENATION SYNTHESIS GASES AND HYDROGEN GENERATION DESULFURIZATION NEW CATALYTIC PROCESSES

**GIRDLER CATALYSTS** 

LOUISVILLE 1, KENTUCKY CHEMICAL PRODUCTS DIVISION · CHEMETRON CORPORATION *Thomas*-Schöniger combustion

# apparatus



sulfur, traces of metals, etc., in organic materials

A simplified technique for catalytic combustion of organic materials in oxygen. The procedure converts organic materials into soluble combustion products which are then analyzed by usual inorganic gravimetric or volumetric methods.

Consisting of a heavy wall flask, of borosilicate glass, with ground glass stopper with attached platinum wire gauze sample carrier and specially cut low ash paper sheets which serve as sample holders.

serve as sample holders. In use, sample is placed in the platinum carrier and the flask is charged with a small amount of absorbing liquid and with free-flowing oxygen. The paper is ignited; stopper with sample is seated in the flask and flask inverted at an angle. Combustion proceeds at high temperatures and com-bustion products are absorbed in the liquid. *Titrations can* there he made directly in the flask

pustion products are absorbed in the liquid. I utrainons can then be made directly in the flask. Results compare favorably, i.e., within  $\pm 0.3\%$ , with con-ventional methods. Because of low cost, time and space saving features, the method is finding wide use for many substances which undergo complete combustion. See Wolfgang Schöniger, Mikrochimica Acta, 1956, Heft 1-6, m 869.876

pp. 869-876.

6470-E. Combustion Apparatus, Thomas-Schöniger (Schöniger Flask), as above described, 300 ml capacity, for 6470-G. Ditto, as above but with 500 ml flask, for samples 



# **ARTHUR H. THOMAS CO.**

Laboratory Apparatus and Reagents

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More and More Laboratories RELY ON THOMAS

INDUSTRIAL GASES. A 28-page discussion of air-reduction gases, including oxygen, nitrogen, argon, hydrogen, helium, and carbon dioxide. Air Reduction Sales Company, General Offices, 150 East 42nd street, New York 17, N.Y.

NALCO. 23 pages of literature, charts, and graphs explaining the new Nalfining upgrading process. Nalco Chemical Company, Industrial Division, 6216 West 66th place, Chicago 38, Ill.

BARNES AUTOMATIC CASE PACKER. Fact sheet describing Barnes automatic case packed for bottled goods. W. F. and John Barnes Company, 301 South Water street, Rockford, Ill.

## • Industry Items

A fat-stability apparatus has been developed by E. H. Sargent and Company, Chicago, which determines the rela-tive stability of lards, fats, and oils in accordance with A.O.C.S. Method CD (12-57).

Girdler Catalysts, Louisville, Ky., has established a Chi-cago field office, 840 Michigan avenue, Chicago, Ill., which will handle sales and provide technical services to users of Girdler catalysts in the Midwest. R. J. Ambrosen will head the new office.

A new feature of the Freas laboratory ovens line of the Precision Scientific Company, 3737 W. Cortland street, Chicago 47, Ill., is an electronic control system, which eliminates the moving parts that are often the cause of failure in hydraulic thermostat systems. In addition, the electronic control coupled with improved construction makes possible a rated maximum temperature range of 325°C., the highest in the laboratory oven field.

The Colgate-Palmolive Company, New York, announces completion of arrangements for the acquisition of Sterno Corporation and its subsidiaries, which market "Sterno Canned Heat" and an extensive line of stoves, heaters, food warmers, chafing dishes, and other appliances utilizing this fuel for industrial and household use.

Glass heat exchangers, manufactured by Q.V.F. Ltd., England, are now being sold in the United States through Corning Glass Works, Corning, N.Y., and its nation-wide plant-equipment distributors.

The Scientific Research Society of America installed its 57th Industrial Research Branch at Foster D. Snell Inc., New York, at an April 9, 1959 meeting at the Chem-ists' Club, N.Y. The new group will be known as the Snell Conchemist Branch.

The A. E. Staley Manufacturing Company, Decatur, Ill., recently acquired the UBS Chemical Corporation of Cambridge, Mass., in order to aid Staley's research and polvmer chemical development and to diversify its product lines.

Central Scientific Company, Chicago, Ill., has introduced an electric laboratory hot plate, the Cenco hotplate magnetic stirrer, which is combined with a magnetic stirrer operated as an independent stirring unit, as a heating plate, or as both simultaneously.

National Starch and Chemical Corporation, New York, announces the purchase of Polimeros S. A., a manufacturer of vinyl acetate polymers in Mexico City.

A new soybean oil and meal plant under construction at South Norfolk, Va., by Cargill Inc., Minneapolis, Minn., will use the Rotocel solvent-extraction system supplied by the Chemical Plants Division, Blaw-Knox Company, Pittsburgh, Pa.

#### Call to Business Meeting

Active members of the American Oil Chemists' Society are hereby notified of the special business meeting to be held at the Statler Hilton hotel, Los Angeles, at 1:30 p.m. on September 30, 1959, for the purpose of hearing com-mittee reports and transacting Society business.

N. D. EMBREE, president

R. C. STILLMAN, secretary