

## • Names in the News

R. P. Hutchins (1942) has been appointed Vice President of the Solvent Extraction Division, French Oil Mill Machinery Co., Piqua, Ohio. Mr. Hutchins, well known in the oil chemical field is the author of several articles. Prior to joining French, was active in vegetable oil solvent recovery research.

E. T. Marshack (1950) announced the opening of Eugene Marshack Associates, an international consulting firm. Mr. Marshack, who heads the firm, had been associated with Bunge Corporation for eighteen years.

E. P. McFee (1944) has been elected Vice President of Research, Development, and Quality Control of Gorton's of Gloucester, Inc.

R. P. Trauth (1951) has been named Manager of the Chemical Division, Darling and Company. Mr. Trauth was formerly Sales Manager of the Division.



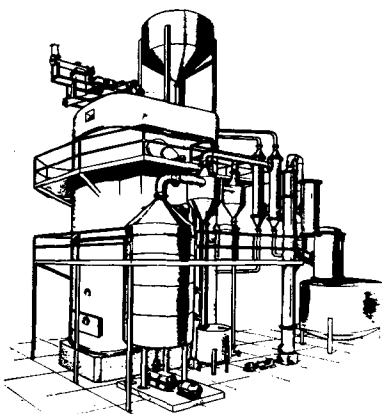
R. P. Hutchins



J. J. Ganuchau

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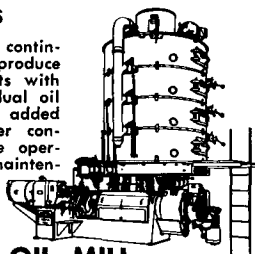


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J. J. Ganuchau (1918), has been appointed to serve as Consultant in Chemistry and Chemical Engineering for Woodson-Tenent Laboratories. Mr. Ganuchau, who has been very active in AOCS activities, is a retired District Chemist of Wesson Division, Hunt Foods & Industries.

R. S. Wayman (1962) has been appointed Conference Chairman of the 46th Annual Conference and Exhibition of the Chemical Institute of Canada. The conference will be held June 6-8, 1963 at the Royal York Hotel in Toronto. Over 1500 delegates from chemical industries, government, and universities are expected to attend.

## • Local Section News

### North Central Section

On January 23, the North Central Section met at the Builders' Club for the first meeting of the new year. Dinner was preceded by a social hour.

After dinner the section was introduced to Dr. McGee, President, of the National AOCS. Following the introductions and announcement, an intriguing talk was delivered by Mr. Herbert T. Iveson of Central Soya Company, Inc., on the role of "The Chemistry of Soybean Lecithin" in fats and oils.

## • New Products

MECHROLAB, INC., Mountain View, Calif., has released the new Model 501 High Speed Membrane Osmometer provides a rapid means of determining number-average molecular weights in the 20,000 to 1,000,000 region. Measurement of single concentrations ranges typically from 3 to 15 minutes.

HYDROPOISE, INC., Scottsdale, Ariz., has announced the new Hydropoise Model 1008 Preset Computing Totalizer, developed as a read-out instrument for turbine flowmeters. It is to be used primarily for batching operations in the chemical industry, food industry, and other related process industries.

BECKMAN INSTRUMENTS, INC., SPINCO DIVISION, Palo Alto, Calif., has designed the Accu-Flo Pump for the precise reproductible metering of small liquid volumes. It is expected to have wide application in column chromatography, industrial process systems, and laboratory control systems.

INSTRUMENTS INC., Tulsa, Okla., recently introduced a completely new concept in laboratory gas chromatographs, "The Valved Gas Chromatograph." One of its most unique features is "high temperature valves," which are offered for up-dating chromatographs already in service. The valves are thoroughly described and illustrated in their catalog #2500.

BAUSCH AND LOMB INC., Rochester, N. Y., has announced a new line of DynaZoom Phase Contrast Microscopes. Twelve individual models have been designed to meet the requirements of every microscopist for observing specimens which are colorless or differ little in refractive index from their surroundings.

ACE GLASS, Vineland, N. J., has developed the Dannley Pressure Filter Funnel, which is particularly useful with volatile solvents and hot solutions which leave a residue on the underside of the disc when vacuum is employed. This difficulty is eliminated by positive pressure.

NEEDS CORPORATION, Jackson, Michigan, has announced a new line of unbreakable graduated cylinders and hydrometer jars made of a new glass-transparent polycarbonate plastic. The plastic used is indestructible in normal use and will resist temperatures to 280°F. It has improved chemical resistance and is safe with petroleum ether, hexane, ethanol, water, aliphatic and cyclic hydrocarbons, alcohols, aqueous acids and salt solutions, mineral, animal and vegetable oils, ink soaps and detergents.

## New Literature . . .

(Continued from page 34)

PERKIN-ELMER CORP., has published a new report on recent developments in gas chromatographic analysis of fatty acids. Authors are L. S. Ettre, W. Averill, and F. J. Kabot, all of Perkin-Elmer. The report is available upon request. (Instrument Division, 1001 Main Ave., Norwalk, Conn.)

APPLIED SCIENCE LABORATORIES INC., has just released Catalog #5 which lists over 100 high purity fatty acid chemicals, triglycerides, cholesteryl esters, uniformly tagged C<sup>14</sup> fatty acid chemicals and calibration standards for gas chromatography. The catalog also lists over 20 different solid supports, 150 stationary phases, column packings and a variety of accessories for gas chromatography. (State College, Pa.)

THE NATIONAL ASSOCIATION OF MARGARINE MANUFACTURERS has released a 1963 edition of its "Directory of Margarine Manufacturers in the United States." It lists the headquarters, addresses, phone, plants and the known persons to whom inquiries should be directed for all known margarine manufacturers in the U.S. A \$5.00 per copy charge is the cost of production. (545 Munsey Building, Washington 4, D. C.)

(Continued on page 42)

### • Crude Glycerine Production Down

According to the U. S. Department of Commerce, production of crude glycerine (including synthetic) for the month of December 1962 was 22.1 million lb, down 1.3 million lb from November, and down 2.0 million lb from crude production reported for December 1961. Crude production for 1962 totalled 249.3 million lb, compared to 279.2 million lb for 1961.

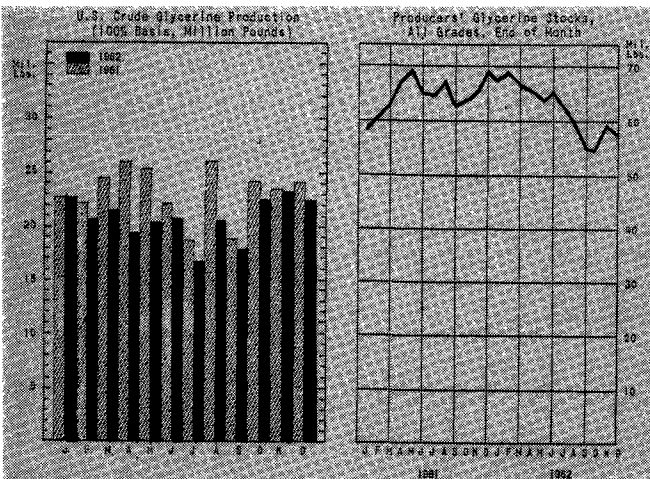
At the end of December, crude and refined glycerine stocks in the hands of producers totalled 57.5 million lb,

down 2.0 million lb from November and down 11.8 million lb from December the previous year.

Production of ethylene glycol, propylene glycol and pentaerythritol (Millions of lb)

|                   | Ethylene Glycol      | Propylene Glycol   | Pentaerythritol   | Total** |
|-------------------|----------------------|--------------------|-------------------|---------|
| <b>Year:</b>      |                      |                    |                   |         |
| 1957              | 1,199.9              | 98.4               | 56.5              | 1,354.9 |
| 1958              | 1,145.5              | 42.0 <sup>b</sup>  | 53.9              | 1,240.6 |
| 1959              | 1,214.5 <sup>a</sup> | 151.5 <sup>a</sup> | 64.1 <sup>a</sup> | 1,430.2 |
| 1960              | 1,297.5 <sup>c</sup> | 152.0 <sup>c</sup> | 64.3 <sup>c</sup> | 1,513.5 |
| 1961 <sup>d</sup> | 1,183.3              | 160.3              | 62.4              | 1,406.0 |
| <b>1960:</b>      |                      |                    |                   |         |
| October           | 111.7                | 18.7               | 5.6               | 121.0   |
| November          | 104.9                | 8.7                | 5.2               | 118.8   |
| December          | 108.6                | ...                | 5.1               | 113.8   |
| <b>1961:</b>      |                      |                    |                   |         |
| January           | 119.5                | 12.0               | 5.5               | 137.0   |
| February          | 101.0                | 12.7               | 4.4               | 118.1   |
| March             | 101.8                | 14.0               | 5.8               | 120.7   |
| April             | 95.7                 | 14.1               | 5.4               | 115.3   |
| May               | 92.4                 | 15.4               | 5.8               | 113.1   |
| June              | 97.0                 | 15.1               | 5.1               | 117.2   |
| July              | 94.4                 | 16.0               | 4.6               | 115.1   |
| August            | 99.3                 | 15.3               | 5.0               | 119.7   |
| September         | 87.7                 | 10.7               | 5.2               | 103.6   |
| October           | 97.5                 | 12.3               | 5.9               | 115.6   |
| November          | 95.2                 | 10.8               | 4.9               | 110.9   |
| December          | 37.8                 | 11.8               | 5.1               | 114.3   |
| <b>1962:</b>      |                      |                    |                   |         |
| January           | 91.5                 | 19.1               | 5.8               | 116.1   |
| February          | 86.8                 | 15.4               | 4.3               | 106.7   |
| March             | 87.9                 | 16.0               | 4.7               | 108.5   |
| April             | 88.8                 | 12.2               | 5.0               | 106.0   |
| May               | 96.4                 | 17.2               | 4.8               | 118.4   |
| June              | 105.7                | 13.6               | 4.5               | 123.7   |
| July              | 119.1                | 15.2               | 4.9               | 137.2   |
| August            | 122.0                | 12.7               | 5.4               | 140.0   |
| September         | 106.4                | 13.0               | 5.5               | 124.9   |
| October           | 112.9                | 9.9                | 6.6               | 129.4   |
| November          | 114.4                | 23.4               | 5.5               | 143.3   |

\* Totals may not agree exactly because of independent rounding of figures.  
<sup>a</sup> Revised, but does not agree with total of monthly figures.  
<sup>b</sup> Incomplete—sum of five monthly figures only. Tariff Commission did not publish an official 1959 annual figure for propylene glycol.  
<sup>c</sup> Official figure, but does not agree with total of the months.  
<sup>d</sup> Final, official figures.



DECEMBER (Million lb) Preliminary

| Glycerine 100% Basis | Factory production |                         | Factory & Warehouse Stocks (Producers') |                         |
|----------------------|--------------------|-------------------------|---|-------------------------|
|                      | Dec. 1962          | % Change from Nov. 1962 | End of Dec. 1962                        | % Change from Nov. 1962 |
| Crude                | 22.1 <sup>a</sup>  | -5.6                    | 29.0                                    | -0.1                    |
| Refined, all grades  | 21.3               | -7.4                    | 28.5                                    | -6.6                    |
|                      |                    |                         | 57.5                                    | -5.4                    |

<sup>a</sup> Includes Synthetic glycerine

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(Continued from page 29)

## • Drying Oils and Paints

**BINARY OIL-IN-WATER SURFACE COATING EMULSIONS.** R. J. Carney and F. J. Hahn (Monsanto Chemical Co.). *U. S. 3,069,368*. A stable non-flocculating oil-in-water emulsion consists of (a) 100 parts of a fatty acid ester of a copolymer of an ethylenically unsaturated alcohol and a styrene monomer, (b) from 2-30 parts of an etherified aminoplast, (c) an emulsifier consisting of an amino salt of a fatty acid present in a total molar proportion equivalent to (1) the molar proportion of the corresponding free fatty acid which would theoretically be required to provide an acid number of from 2-12 in comixture with the esterified copolymer plus (2) a molar proportion of free fatty acid equivalent to from 5-25% by weight of the etherified aminoplast and (d) from 65-900 parts of water. A similar composition is described in *U. S. 3,069,371* by the same inventors.

## • Detergents

**AN ULTRACENTRIFUGAL METHOD FOR THE QUANTITATIVE DETERMINATION OF EMULSION STABILITY.** R. D. Vold and R. C. Groot (Dept. of Chem., Univ. of So. Calif., Los Angeles 7, Calif.). *J. Phys. Chem.* **66**, 1969-75 (1962). A method was developed for the use of the ultracentrifuge to determine the rate of separation of Nujol from Nujol-water emulsions stabilized with sodium dodecyl sulfate (SDS). This rate remains constant throughout separation of a large proportion of the oil in the emulsion and can be used as a measure of the stability.

**GERMICIDAL DETERGENT COMPOSITION.** J. Blodinger (American Cyanamid Co.). *U. S. 3,069,358*. The described composition consists of (1) from 1 to 40% of a nonionic surface-active agent selected from the group consisting of the reaction product of octylphenol with from 6 to 30 moles of ethylene oxide and the reaction product of nonylphenol with from 6 to 30 moles of ethylene oxide, (2) from 5 to 40% of a water-soluble organic anionic detergent, (3) from 0.5 to 5% of hexachlorophene, (4) about 2.5% of a water-soluble derivative of lanolin, (5) from 0.1 to 3% of a therapeutically effective form of neomycin, and (6) sufficient water to total 100%. The resulting composition has a pH of between 5 and 7 and is storage-stable for at least a year at 25°C. A similar composition, described in *U. S. 3,069,359*, contains a water-soluble organic anionic detergent, neomycin, the nonionic active agent, a non-toxic organic acid, and water.

**DETERGENT COMPOSITIONS FOR REMOVING SILICONE GREASE.** A. Mankowich (Sec'y of the Army, U.S.A.). *U. S. 3,069,360*. The described composition consists of, by weight: (1) 4.5 to 7.5% of the monobutyl ether of oxyethylene-oxy-1,2 propylene diol in which the weight ratio of ethylene oxide to propylene oxide is 1:1 and in which the total molecular weight of the butyl derivative is greater than 3500; (2) 6 to 10% of a water-soluble alkali metal fatty acid soap such as sodium laurate or sodium oleate; and (3) sodium silicate.

**SOAP-SYNTHETIC BAR.** R. H. Chaffee (Procter & Gamble Co.). *U. S. 3,070,547*. A milled detergent bar characterized by good lathering performance and a reduced tendency to crack and smear during use, consists of a homogeneous mixture of: (1) a water-soluble, normally solid synthetic detergent that is a potassium salt of an alkyl sulfuric acid containing an alkyl radical of from 10 to 22 carbon atoms; (2) a water-soluble, normally solid alkali metal soap; (3) a hydrated magnesium soap; and (4) an alkali metal salting-out electrolyte (chloride, sulfate, or carbonate salts). The ratio of synthetic detergent to total soap is about 6:1 to 3:1; the magnesium soap constitutes from 15-85% of the total soap, the remainder of the soap being alkali metal soap; the amount of salting-out electrolyte, calculated as NaCl is from 5 to 30% of the sum of synthetic detergent plus alkali metal soap. The moisture content of the finished bar after milling is about 8%.

**EMULSIFIER MIXTURE.** S. Altscher and T. F. Groll, Jr. (Nopco Chemical Co.). *U. S. 3,071,550*. An emulsifier mixture for preparing emulsion concentrates for use with organic solvent solutions of water-insoluble toxicants consists of: (1) at least one anionic component having the formula (R-Ar-SO<sub>3</sub>)<sub>x</sub>M in which R is an alkyl group having from 8 to 18 carbon atoms in the chain, Ar is a phenylene radical, M is a cation selected from the group consisting of ammonium, morpholine, sodium, barium and calcium, and x is a whole number 1 or 2; and (2) a nonionic component which is an aliphatic diester of an

unsaturated carboxylic acid selected from the group oleic, linoleic, linolenic and abietic acids and mixtures and a condensate of glycerine and from about 15 to 27 moles of ethylene oxide. The ingredients (1) and (2) are present in an amount of from 35 to 55 parts by weight of the anionic component per 65 to 45 parts of the nonionic component.

## North Dakota State U. Announces New Coatings Symposium Program

A. E. Rheineck, Professor of Coatings Technology, has released the program for NDSU's 5th Annual Symposium on "New Coatings and New Coatings Raw Materials". The Symposium, sponsored by the University's Coatings Technology Department, will be held in the Memorial Union Ballroom at the University from June 3rd to noon on June 6th, 1963.

Housing will be available in one of the dormitories or at one of the local hotels. For further information, address inquiries to A. E. Rheineck, North Dakota State University, Fargo, North Dakota.

The program of speakers is as follows:

1. Address—(Subject to be announced), Lyman P. Hunter, President, Federation of Societies for Paint Technology.
2. Address—(Subject to be announced), Robert W. Roland, Ex. Vice President, National Paint Varnish and Lacquer Association.
3. Nitroparaffin Solvent Applications and Effects on Film Properties, R. F. Purcell, Commercial Solvents Corporation.
4. Organo-functional Silanes in Surface Coatings, R. C. Hedlund, Dow Corning Corporation.
5. New Developments in Chemical Resistant Resins, Richard E. Sraile, The Goodyear Tire and Rubber Company.
6. Diphenolic Acid: A New Building Block for Organic Coatings, H. H. Schultz, E. L. Schaut and D. Dill.
7. The Painting of Galvanized Steel, Joseph Bigos, United States Steel Corporation.
8. Methods for Measuring Particle Size in Latex Systems, William Graessley, Air Reduction Chemical and Carbide Company.
9. Recent Advances in New Polymeric High Temperature Coatings, James J. Mattice, Aeronautical Systems Division, United States Air Force.
10. Polymer Properties as a Function of Composition, W. C. Prentiss, Rohm and Haas Company.
11. Partial Formation in Emulsion Polymerization, R. M. Fitch, North Dakota State University.
12. Recent Development in the Chemistry of Epoxy Resins, Joseph R. Weschler, Ciba Products Company.
13. Rigid Urethane Foam; A Versatile Coating Material, Russell Sears, Rinsed-Mason Company.
14. The Improvement of Materials for Electrostatic Spray Methods and a Technique for Using these Methods on Wood and Other Non-Conductors, Emery P. Miller, Ransburg Electro-Coating Corporation.
15. Organic Phosphate Substrate Treatments and Coating Additives, William A. Higgins, The Lubrizol Corporation.
16. Isoparaffinic Solvents for Coatings, Ross A. Garrison and Arthur M. Thomas, Esso Research and Engineering Company.
17. Encapsulation: Versatility in Micro and Macro Packaging, John F. Hanny, The National Cash Register Company.
18. The Chemistry of Thermosetting Acrylic Resins, W. F. Rutherford, Freeman Chemical Corporation.
19. Progress reports on Research in the Coatings Technology Department: a. Titanium Polymers; b. Reaction of Oxirane Groups; c. Some Relationship between Peroxides and Allylic Monomers in the Cross-linking of Polyester Resins.

## Atlanta Plans . . .

(Continued from page 8)

Evening; the Golf Tournament, for an unusual assortment of fine prizes, will be played at the East Lake Country Club on Tuesday afternoon. Also there is to be a plant tour on Tuesday afternoon. This tour should be over in time for those who are interested to join the Ladies in the trip to the Cyclorama.

### Bond Award, Smalley Awards

Then the Awards Luncheon will be held at 12:30 P.M. on Wednesday, after the final technical sessions. Presentation of the Bond Award and Smalley Awards will be made at that time. A business meeting will follow, new officers will be installed, Committee reports will be made and other business will conclude the annual meeting.

### Reservations Directly to Hotel

Requests for hotel reservations should be made directly to the Biltmore Hotel, Atlanta, Georgia, indicating type of accommodations desired, time of arrival and departure, and also mention the connection with the AOCS Meeting.

This is destined to be an excellent Spring Meeting and Atlanta looks forward to your visit.



At the recent Cottonseed Processing Clinic meeting, Atlanta General Chairman, D. L. Henry (left) found a few moments to discuss the coming Spring Meeting with C. L. Hoffpaur, 1962 Spring Meeting General Chairman, and A. E. MacGee, AOCS President (right).

## Atlanta Abstracts . . .

(Continued from page 22)

### LIPID COMPOSITION OF BEEF BRAIN, BEEF LIVER, AND THE SEA ANEMONE: TOTAL FRACTIONATION BY COLUMN CHROMATOGRAPHY OR BY COMBINATION OF DIETHYLAMINOETHYL CELLULOSE COLUMNS WITH PAPER AND THIN LAYER CHROMATOGRAPHY

George Rouser, Gene Kritchevsky, Dorothy Heller, and Ellen Lieber, City of Hope Medical Center, Department of Biochemistry, Duarte, Calif.

Two approaches to the quantitative fractionation of complex lipid mixtures into individual lipid classes have been elaborated and applied to several tissues and organisms. The first approach involves the use of diethylaminoethyl (DEAE) cellulose column chromatography essentially as described previously [JAOCS 38, 544-555 (1961)] followed by examination of the fractions from the DEAE column by paper and thin layer chromatography. For more limited studies this approach offers a rapid means for obtaining percentages of certain lipids and for the detection of the variety of lipids that occur in complex mixtures. The second and more basic approach involves the use of DEAE cellulose columns followed by separation of the individual fractions from the DEAE columns into individual lipid classes on silicic acid or silicic acid-silicate-water columns [JAOCS 38, 544-555 (1961)]. Additional information on the elution schemes for DEAE and silicic acid-silicate-water columns has been obtained. That the information obtained about the lipid composition of tissues with the column methods is much more complete than when one or two dimensional thin layer or paper chromatography alone are used is clearly shown by the results with beef brain, beef liver, and the sea anemone. A new ninhydrin positive sphingolipid was isolated quantitatively from the sea anemone and shown to be a ceramide aminoethylphosphonate. The new sphingolipid gives upon acid hydrolysis sphingosine and allied bases, fatty acids, and 2-aminoethylphosphonic acid. A new and simple means of conclusively identifying hydrolysis products of lipids by infrared spectroscopy has been applied and shown to give unequivocal evidence for the presence of 2-aminoethylphosphonic acid in the hydrolysates of the new ninhydrin positive sphingolipid. It is concluded that examination of complex lipid mixtures by thin layer or paper chromatography alone is grossly inadequate and that these techniques fail to disclose the large number of lipid classes present in complex mixtures. The relative simplicity of the thin layer and paper methods should not lead one to suppose that they are precise and autoxidative changes must be appreciated since exposure to air is extensive when separations are carried out by thin layer or paper chromatography. The column methods make possible the detection of the numerous lipid components of complex mixtures and precise quantitation of each lipid class as well as precise fatty acid composition studies, particularly when the procedures are conducted carefully under nitrogen.

### STUDY OF BIOLOGICAL STRUCTURE AT THE MOLECULAR LEVEL WITH STEREOMODEL PROJECTIONS

F. A. Vandenheuvel, Animal Research Institute, Canada Dept. of Agriculture, Ottawa, Ont.

Considerable uncertainty still exists regarding the detailed arrangement in protein-lipid molecular associations found in serum lipoproteins, plasma-membranes of cell organelles, the myelin sheath of nerve, and many other structures of paramount importance to biological mechanisms both in health and disease. Working hypotheses concerning such structures must eventually be tested by comparing known properties with those suggested by exact stereomodels. In this type of study, orthogonal projections of the molecules offer several advantages over the tri-dimensional stereomodels from which they can be derived by a described photographic process. The rules governing the configuration to be given the molecular models used for this purpose are discussed, and the possible applications of the resulting diagrams are described and illustrated by numerous examples taken in the lipid field.

## New Literature . . .

(Continued from page 39)

GALLARD-SCHLESINGER CHEMICAL MFG., INC., has announced the availability of a looseleaf catalog on research and development of chemicals. The broad coverage of this brochure includes listings of compounds which are commercially available, compounds which are of pure research interest, a few analytical chemicals and between 10% and 20% inorganic materials. (1001 Franklin Ave., Garden City, N. Y.)

RESEARCH SPECIALTIES Co. describes and illustrates complete equipment for thin-layer chromatography in the RSCo Review, Vol. 4, No. 6, including new items for recent developments in application of the TLC technique. The bulletin lists seventeen different adsorbents for layering on five sizes of glass plates. Both crystal and borosilicate plates are offered. Spray application of the thin-layer is now possible with the new aerosol Chromatosprayer. Free copies of the Review may be obtained from the company. (200 South Garrard Blvd., Richmond, Calif.)

UNITED STATES TESTING Co., INC. offers a new bulletin describing the biological testing services available. The bulletin gives a comprehensive list of typical products evaluated. Other available services and facilities in the allied scientific disciplines are also listed. (Biological Services Division, 1415 Park Ave., Hoboken, N. J.) The company has released a second bulletin describing the chemical analysis and R/D services available. The services are designed to meet the requirements of companies needing specialized experience in the chemical field, help with peak loads, a control on their own laboratory, or independent laboratory evaluations. The bulletin also details the potentials of instrumental analysis for quick and accurate determinations of unknown organic compounds. (Chemical Division, 1415 Park Ave., Hoboken, N. J.)

THE EUROPEAN FEDERATION OF CHEMICAL ENGINEERING has published a duplicated typescript of their annual report for 1961. It was prepared by the General Secretariat of the Federation, Frankfurt (Main) Office, Rheingau-Allee 25, which is administered on an honorary basis by the DECHEMA Deutsche Gesellschaft für Chemisches Apparatewesen. The report is written in English, French and German and may be obtained from the General Secretariat of the European Federation of Chemical Engineering on application. (DECHEMA, 6 Frankfurt (Main) 7, Postfach 7746, Germany.)

SCIENTIFIC PRODUCTS, Division of American Hospital Supply Corp., has published a new laboratory supply catalog entitled "Adventures in Food Processing." The booklet also lists a new product called the S/P Agtron. (1210 Leon Place, Evanston, Ill.)

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Broad experience (5 years minimum) in surfactants applications, especially in field of household detergents. Should also be experienced in one or more of following areas: cosmetics, aerosols, textile chemicals, agricultural chemicals, functional fluids.

BS or MS—Chemistry or Chemical Engineering

Write in confidence to  
Mr. C. E. Holder, Dept. 54

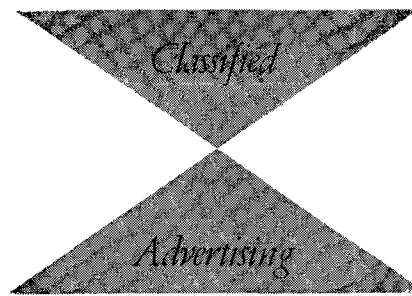


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### *Technical Safety and Engineering Group to Present Special Program at Atlanta*

In addition to the regular committee business, the Technical Safety and Engineering Committee—W. F. Bollens, Chairman—will present a number of speakers to talk on special subjects at the committee meeting to be held during the Spring meeting of the A.O.C.S. at Atlanta. The topics and speakers are as follows:

“Engineering Aspects of Normal and Emergency Venting for Tanks Containing Flammable Liquids”—by Miles E. Woodworth, Secretary of the Committee on Flammable Liquids of the National Fire Protection Association.

“Sanitation and Housekeeping”—by George B. Wagner, Entomologist—Director, Economic Biology Department, the Pillsbury Company.

“Earlier Payout Through Tight Project Scheduling and Control”—by Harry F. Betzig.

The above men are outstanding in their fields, and we feel that the members of the committee as well as others interested in production problems will find these talks both interesting and informative.

We urge the attendance of all committee members as well as others interested in these fields.