T. S. Hodgins, and C. J. Meeske (Reichhold Chemicals, Inc.). *U. S. 2,315,708.* The resin is made from soybean oil, pentaerythritol and phthalic anhydride.

DICHLORETHYL ETHER EXTRACTION PROCESS. J. Robinson and H. Lowery (Standard Oil Company). *U. S. 2,338,384.* The method of preventing emulsification difficulties and increasing the effective capacity of a Chlorex extn. system comprises introducing into the Chlorex a small amt. of a green acid soap, employing approx. 1 gallon of the green acid soap per 10,000 gallons of Chlorex and withdrawing a green acid soap soln. from the system as a separate phase.

Abstracts

Soaps

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THE CHEMISTRY OF GLYCERIN MANUFACTURE. 3. GLYCERIN LYE EVAPORATION. J. L. Boyle. *Mfg. Chemist 14*, 313-5, 326 (1943).

SURFACE ACTIVE AGENTS. Earl K. Fischer. *Soap 20*, No. 1, 28-30, 67-8 (1944). Empirical testing procedures for the evaluation of surface-active agents have the advantage of direct application to process control. Standard tests should be accepted when possible. The Draves-Clarkson and Canvas Disc Methods are convenient for wetting of textiles. For spreading of solutions over water-repellent surface, a simple drop test on paraffin-impregnated filter paper or on oil-covered glass gives a qualitative evaluation. Emulsifying agents can be rated for ease of emulsification and for stability of the product. Centrifuging test emulsions under standard conditions provides a comparison of stability in hours instead of months. Detergency is usually tested by standard laundering methods. Dispersion of powdered solids in liquids can be rated on the basis of settling tests in graduated cylinders where the solid content is low, or by rheological measurements where the solid contents are higher, resulting in a pasty consistency. Data obtained from empirical test procedures in one laboratory are often not comparable with data obtained in other laboratories. Fundamental physical data, on the other hand, are comparable, and it is urged that whenever possible the empirical test be calibrated with additional measurements. For comparative studies of surface-active agents, the determination of surface and interfacial tension values are the most important.

FAT SAVERS IN THE DETERGENT INDUSTRY. A. Foulon. *Seifenseider-Ztg. 69*, 23 (1942). The use of water glass in detergents is recommended in these times of fat scarcity because of its cleansing, emulsifying and thus dirt-binding effect. Another advantageous characteristic is its non-corrosive nature in solns. of not over 6-10 g./l. in Al boilers, etc., in contrast to soda and Na_3PO_4. *(Chem. Abs.)*

LINSEED-OIL SOAP—A NEW LURE FOR THE MELON FLY. M. McPhail. *J. Econ. Entomol. 36*, 426-9 (1943). Linseed-oil soap proved strongly attractive to *Dacus cucurbitae*; cottonseed-oil soap and corn-oil soap also possessed strong attractive properties. The attractive component of linseed-oil soap is probably a fat acid. Field trials to protect melons from fly attack were unsuccessful, owing to prompt reinfestation. *(Chem. Abs.)*

THE ANTIBACTERIAL ACTION OF SURFACE ACTIVE CATIONS. E. I. Valko and A. S. DuBois. *J. Bact. 47*, 15-25 (1944). The "killing" action of surface-active cations on bacteria can be reversed, under certain conditions, by detoxication with a high molecular anion. The antibacterial behaviour of surface-active cations is in agreement with that of toxic metallic ions and dye cations. They can be considered as a phenomenon of ionic exchange by bacteria. Observations are presented that demonstrate the protective action on bacteria of relatively harmless cations against toxic cations. This can likewise be considered as a case of ionic exchange.

ANALYSIS OF PETROLEUM OIL-SOLUBLE SODIUM SULFONATES BY ADSORPTION. J. M. Koch. *Ind. Eng. Chem. Anal. Ed. 16*, 25-8 (1944). The chief advantages of the adsorption procedure are freedom from emulsion difficulties, rapid convenient physical operations, and sharp separations of oil and sodium sulfonate components.

FORMATION OF INVISIBLE, NON-PERCEPTIBLE FILM ON HANDS BY CATIONIC SOAPS. B. F. Miller, R. Abrams, D. A. Huber, and M. Klein. *Proc. Soc. Exptl. Biol. Med. 54*, 174-6 (1943). Certain cationic soaps deposit an invisible, non-perceptible film on the hands. This film retains bacteria underneath it, and is very resistant to mech. trauma. The inner surface of the film has a low bactericidal power whereas the outer surface exerts a strong germicidal action.

SOLUBILIZATION AND THE COLLOIDAL MICELLES IN SOAP SOLUTION. J. W. McBain and K. E. Johnson. *J. Am. Chem. Soc. 66*, 9-13 (1944). The solubilization of water insol. dye by 4 K soaps has been measured for equilibrium conditions over a range of concns. The solubilization increases so rapidly with the higher soaps as to cast doubt upon the suggestion that it is soln. in the hydrocarbon fraction of the molecule, but rather to favor its incorporation between the layers of lamellar micelles. KCl not only greatly increases the solubilizing power of fully formed micelles, but it produces in dil. soln. micelles of still higher solubilizing power.

PATENTS

SOLID ROSIN SOAPS. Fritz Arledter. *Ger. 729,115.* Molten rosin is treated in an autoclave with steam and CO_2 and then saponified, in the same operation with NH_3. The latter is taken in an amount insufficient to bring about complete saponification. This soap is especially suitable for paper. *(Chem. Abs.)*

SOAPS CONTAINING NONE OR ONLY VERY LITTLE FILLER. Ernst Trommsdorff (Rohm & Hass). *Ger. 729,200.* Such soaps contain water-sol. polymers of acrylates and methacrylates. *(Chem. Abs.)*

FAT ACIDS AND GLYCEROL FROM SAPONIFIABLE OILS AND FATS. Otto Bruche (Metallgesellschaft). *Ger. 728,638.* The oils or fats are autoclaved with water under pressure. The mixt. is decompressed, thus evapg. part of the H_2O and the rest remaining in the fat acid-glycerol-H_2O mixt. is driven off in vacuo. The fat acids and crude glycerol are dist. off together and the two sepd. in the distillate by sedimentation. *(Chem. Abs.)*

CONTINUOUS MANUFACTURE OF SOAP. A. T. Scott (The Sharples Corporation). *U. S. 2,336,893.*