and vacuum treatment before removal of soap stock by centrifuging is described.

RECOVERY OF REFINED PRODUCTS FROM TALL OIL. Isador Miller. *U. S. 2,291,824.*

OIL TREATMENT. Eddie C. Glenn (Industrial Patents Corp.). *U. S. 2,292,027.* The method of bleaching refined glyceride oils comprises heating the oil to a temp. of from 160° F. to 220° F., addg. thereto from 0.1% to 1% of a solid adsorbent, agitating the mixt. of adsorbent and oil, sepg. the adsorbent from the oil, heating the oil to a temp. of from 365° F. to 400° F. under a vacuum and treating the oil with steam.

METHOD OF SEPARATING FATTY ACIDS. Latimer D. Myers and Victor J. Muckerheide (Emery Industries, Inc.). *U. S. 2,293,676.* Stearic and palmitic acids are sepd. from unsatd. fats by crystn. from methyl alc. soln. contg. water (less than 15%).

LIQUID PHASE EXTRACTION OF GLYCERIDE OILS AND ACIDS. Stephen E. Freeman (Pittsburgh Plate Glass Co.). *U. S. 2,291,461.* A process of selectivity separating a fraction rich in glycerides of relatively short chain length from a glyceride oil contg. them, in admixt. with glycerides of relatively long chain length comprises contacting the oil with an organic polar solvent contg. as a polarizing group one of the class consisting of amino and amido, which solvent at low temps. is relatively immiscible with the long chain glycerides, the conditions of contacting the glyceride and solvent being such that the system remains liquid and the glycerides are incompletely dissolved, separating the two resultant liquid phases and removing the solvent phase to obtain said desired fraction.

PROCESS FOR HYDROGENATING SOYBEAN OIL. Arne Gudheim (Lever Bros. Co.). *U. S. 2,293,729.* A method of stabilizing soybean oil against reversion under deep frying conditions utilizing temp. in the nature of 375° F. comprises hardening the oil and reducing the iodine value to at least 75 by passing H through the oil mass in the presence of a Ni catalyst while maintaining the oil at a temp. of less than 110° C.

WAX COATING COMPOSITION. J. D. Ingle (Industrial Patents Corp.). *U. S. 2,292,323.* This invention relates to a method of inhibiting the growth of mold on cheese. The wax compn. comprises paraffin, a small proportion of palmitic acid and propionic acid.

SIMULATED FAT AND METHOD OF PREPARING SAME. Frank H. Hoy (Hoy Equipment Co.). *U. S. 2,290,854.* A meltable meat coating composition consists of an intimate mixt. of from 50 to 90% by wt. of fat and from 50 to 10% by wt. of a binder composed of finely subdivided, partially-solid, cooked skin.

THICKENING OF SOLUTIONS. Morris B. Katzman and F. J. Cahn (The Emulsol Corp.). *U. S. 2,291,634.* An aq. soln. of at least 5% of a monoethanolamine salt of the sulphoacetic acid amide of the lauric acid ester of monoethanolamine, and contg. a proportion of a salt of monoethanolamine with a water-soluble aliphatic acid, which latter salt is soluble in said soln. sufficient to appreciably thicken the same.

MODIFYING CASTOR OIL. Alexander Schwarcman (Spencer Kellogg and Sons, Inc.). *U. S. 2,292,902.* In modifying castor oil, the process comprises heating it in the presence of a minor amt. of dissolved camphor sulfonic acid for a period at least sufficient to make the oil miscible with mineral lubricating oils.

CATALYTIC OXIDATION. Donald J. Loder and P. L. Salzberg (E. I. du Pont de Nemours & Co.). *U. S. 2,292,950.* A process for the prepn. of a satd. polycarboxylic acid from non-drying and semi-drying hydroxylated fatty acids and unsatd. fat acids of more than eight carbon atoms and their esters comprises simultaneously oxidizing and cleaving the chain of said compds. by subjecting them to oxidation by means of an oxygen-contg. gas in the presence of an oxidation catalyst, a solvent for the substance to be oxidized and a co-oxidizer.

COATING AND IMPREGNATING PRODUCT AND PROCESS. Ivor M. Colbeth (Baker Castor Oil Co.). *U. S. 2,291,794.* A composition of matter comprises substantially solid oxidized castor oil that is insoluble in ether alcohol, acetone, benzol, carbon disulphide, water and turpentine, and a sufficient amt. of diethylene glycol ethyl ether to form an emulsion when mixed with water.

CONDENSATION PRODUCT. Eugene Lieber (Standard Oil Development Co.). *U. S. 2,291,396.* A compn. comprising a waxy mineral lubricating oil having added thereto a small amt. of a substance having pour depressor properties and comprising essentially a condensation product of a polyalkylene polyamine and a fatty acid.

Abstracts

Soaps

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SOAP SPECIFICATIONS DEVELOPED BY A.S.T.M. Anon. *Oil, Paint and Drug Reporter 142*, No. 8, 47 (1942). Summary of the work of the committee D-12. Changes in the old soap specs. are given.

SOAP FACTORY EQUIPMENT. I. HANDLING RAW MATERIALS. N. G. Weir. *Soap, Perfumery and Cosmetics 15*, 378-81 (1942). Convenient arrangements for melting-out, handling caustic and salt, bleaching, and pumps, motors, etc. for the small and medium-size plant are reviewed.

MAKING MODERN SHAVING CREAMS. David I. Day. *American Perfumer 44*, 47-49 (1942). Manufacturing formulas and advertising angles are discussed.

(REPORT ON) BIOCHEMISTRY: GLYCEROL FROM COCONUT OIL. R. R. Worsley. *East African Agr. Research Sta., Amani, Ann. Rept. 13*, 11-12 (1940). (Pub. 1941). In making soap from coconut oil, the soap can be salted out only by having at least 20% NaOH in the lye, the neutralization of which would require large quantities of H_2SO_4. The use of H_2SO_4 was avoided by using the spent lye for a second soap making and then neutralizing the excess of soda with another oil, such as cottonseed or kapok, which produced a soap capable of being salted out with NaCl. A lye with a good concn. of glycerol resulted and crude glycerol was readily obtained from it. *(Chem. Abs.).*

Determination of glycerol in whey. G. Schwartz and B. Hagemann. Vorratspflege u. Lebensmittelforsch. *4*, 50-4 (1941). The Kolthoff reaction of glycerol with fuchsinsulfurous acid is dependent on temp. and time. Lactose solns. treated with alkali and mineral acid give the same reaction. For an exact detn. of glycerol the most suitable procedure is the micromethod of Zeisel-Fanto (Landw. Versuchsw. Osterv. 4, 977; 5, 720), in which Pregl micro methoxy app. is used. The whey should be first dealbuminized with dialyzed Fe oxide and decolorized with bone char. *(Chem. Abs.).*

Determination of glycerol, ethylene glycol and 1,2-propylene glycol in the presence of one another. G. Hoepe and W. D. Treadwell. *Helv. Chem. Acta 25*, 353-71 (1942). By the procedure recommended the following reactions take place: $CH_2OH \cdot CHOH \cdot CH_2OH + 2KIO_4 = 2HCHO + HCO_2H + 2KIO_3 + H_2O$; $CH_2OH \cdot CH_2OH + KIO_4 = 2HCHO + KIO_3 + H_2O$; $CH_3CHOH \cdot CH_2OH + KIO_4 = HCHO + CH_3CHO + KIO_3 + H_2O$. The glycerol can be estd. on the basis of the HCO_2H formed, the propylene glycol from the AcH formed and the ethylene glycol from the total aldehyde minus that corresponding to the two other compds. Take 0.4-0.5 g. of sample, mix with 50 ml. of water and add 2.5-3.0 g. of solid KIO_4 (cf. Malaprade, C. A. 28, 7251). Shake the mixt. in a glass-stoppered bottle for two hrs. mechanically. Filter off the excess KIO_4, wash the residue with a little water and dil. to exactly 100 ml. in a volumetric flask. To det. glycerol, take a 20-ml. aliquot, add methyl red indicator soln. and titrate with 0.1 N NaOH. To det. the total aldehyde, take a 25-ml. aliquot, add 50 ml. of 12.5% Na_2SO_3 soln., a few drops of thymolphthalein indicator and 0.1 N HCl to the end point. In a blank test, det. the alky. of the Na_2SO_3 soln. to the same indicator. To det. the HCHO content of the oxidized soln., take a 25-ml. aliquot, add 0.5 ml. of 50% HNO_3 and 30 ml. of 0.1 N $AgNO_3$. Filter off the $AgIO_3$ and $AgIO_4$ ppt., wash the ppt. with a little very dil. HNO_3 and titrate the excess Ag in the filtrate by the Volhard method. In this way the Ag equiv. to the KIO_4 and KIO_3 is obtained. Now take another 25-ml. aliquot of the oxidized soln., treat with 30 ml. of 0.1 N KCN and add exactly the same quantities of HNO_3 and $AgNO_3$ as were used in the previous test. In this way, the excess cyanide is pptd. as well as the periodate and iodate anions. Filter and titrate the excess Ag in the filtrate with 0.1 N NH_4CNS. The results obtained in the analysis of a mixt. contg. about 0.11 g. of each glycol and of glycerol were within about 1.5% of the actual content. *(Chem. Abs.).*

Solubilization of water-insoluble dye in aqueous solutions of commercial detergents. J. W. McBain and R. C. Merrill, Jr. *Ind. Eng. Chem. 34*, 915-9 (1942). Solubility of Orange OT, and in two cases, Yellow AB is given. Data for K oleate at various normalities and for less sol. soaps in 0.1% soln. indicate superiority of long chain compds. as solubilizers. Effect of added salts is studied; observations are made on solubilizing in nonaqueous solvents. There is no connection between effectiveness as a solubilizer and as a wetting agent.

Transitions between homogeneous and heterogeneous systems. J. Stauff. *Z. Elektrochem. 47*, 820 (1941). By detg. the state of aggregation as a function of the total concn. with the aid of the laws of mass action distinction can be made between homogeneous and heterogeneous equil. in a colloid system. Such equil. measurements can be made in the case of paraffinic chain salts (soaps) by means of color indicators. The concn. of the aggregate is shown by the indicator color which can be measured spectrophotometrically. *(Chem. Abs.).*

PATENTS

Stabilization of fatty acid derivatives. G. D. Martin (Monsanto Chemical Co.). *U. S. 2,293,350.* A soap is stabilized against deterioration and development of rancidity by having incorporated therein a small proportion of a compd. selected from the group consisting of alk. metal and ammonium thiocyanates, mercury thiocyanate, alkyl thiocyanates, guanidine thiocyanate and aryl mustard oils.

Detergent composition. Robert B. Colgate and Emil E. Dreger (Colgate-Palmolive-Peet Co.). *U. S. 2,294,075.* A detergent compn. having high efficiency in hard water, contains soap, sulfonated org. compds. and water wol. salts of acids of P.

Cosmetic preparations. George W. Fiero. *U. S. 2,294,229.* A cosmetic preparation, contains as the base thereof hydrogenated castor oil having a melting point above about 40° C. and an I value less than about 70.

Solid comminuted soap. Victor Mills (Procter & Gamble Co.). *U. S. 2,287,698.* Powdered soap consisting of solid feathery particles is formed by spray drying.

Improvements in germicidal soap. Kunz and Gump (Givaudan-Delawanna, Inc.). *Brit. 545,648.* Use is claimed of $2,2^1$ dihydroxy diphenyl methanes as $2,2^1$—dihydroxy-$3,5$-$3^1,5^1$—tetrachloro diphenyl methane, $2,2^1$—dihydroxy-$3,5$-$3^1,5^1$—tetrabromo diphenyl methane and $2,2^1$—dihydroxy-$3,5,6$-$3^1,5^1 6^1$—hexachloro diphenyl methane (I). Phenol coefficients detd. against Staphylococcus aureus indicate that I is capable of killing the organism in concn. of less than 1:5000. *(Perfumery and Essential Oil Record).*