ABSTRACTS

Oils and Fats

Edited by
W. F. BOLLENS and M. M. PISKUR

which favor low protein content in wheat. (*Chem. Abs.*)

PATENTS

Controlled Oxidation of Organic Compounds Such as Oils. Andre E. Briod (to National Oil Products Co.). U. S. 2,050,689, Aug. 11. About 0.1 per cent of methoxyhydroquinone is added to an oil such as cod-liver oil or linseed oil to produce a practically straight oxidation line. (*Chem. Abs.*)

Process for Treating Fatty Oils to Remove Off Taste and Stabilize Same Against Rancidity. C. E. Macke. U. S. 2,058,162. Oils and fats are stabilized against rancidity by treatment with the aqueous extract of sage or celery which has solubility preference to the said oils and fats.

Bleaching and Deacidifying Fats and Oils. Ger. 634,043, **Cl.** 23*a* Gr. 3. Oils and fats are bleached and deacidified by treatment with zinc dust at temps. over 150° C.

Refining Oils and Fats. "Elact" Ges. für elektr. Apparate G. m. b. H. Austrian 146,506, July 10, 1936 (**Cl.** 23*a*). Oils and fats are deacidified, bleached and freed from unpleasant odor and taste by emulsifying them in skim milk or like dairy product, and subjecting the emulsion to electrolysis. An alkali may be added to the dairy product when oils or fats of high acid content are treated. The electrolysis may be effected between Pt electrodes at 50 v. and a c. d. of 10-25 milliamps. per sq. cm. (*Chem. Abs.*)

Splitting Wool Fat. Metalgesellschaft A.-G. Brit. 449,451. A predistillation by steam to 400° is carried to remove unsapon. and fat acids and until the residue resembles pitch. This treatment splits the fat, and the alcs. and unsapon. undergo a change to hydrocarbons. A final distn. in vacuum is performed. The process yields hydrocarbons which are useful as lubricants and fat acids.

Splitting Oils and Fats. Metallgesellschaft A.-G. Fr. 799,274, June 10, 1936. The hydrolytic splitting of oils and fats under 25-50 atm. pressure is carried out in the presence of a certain amt. of a mixt. of split oil and glycerinated water, e.g., left from a previous operation, whereby the time required is shortened. (*Chem. Abs.*)

Rendering Fish Livers. J. F. Ward. Brit. 449,246. About 5% caustic potash is added to minced livers in water and the material is allowed to set one or more days at 40°. The scum which rises to the top is removed, taken up in hot water, the pH is adjusted to 8 with HCl and the oil which then separates may be washed and dried.

Method for the Production of Vegetable Phosphatide Preparations. A. Schwieger (to American Lecithin Co.). U. S. 2,057,695. Process of production of vegetable phosphatide products which includes the steps of adding a fat solvent to raw vegetable phosphatide, removing the fatty constituent with the bulk of solvent, emulsifying the residue of phosphatide and solvent in water, evaporating the remainder of solvent and incorporating in said emulsion a carrier material in aqueous emulsion.

Polymerizing Oils. Robert A. Carleton. Brit. 448,956, June 18, 1936. Unsatd. vegetable, animal and marine oils are polymerized by passage in a continuously and rapidly flowing stream through a heated and restricted conduit of small cross section to heat the oil rapidly to polymerizing temp. and then through a conduit adapted to maintain the oil at polymerizing temp. sufficiently long to effect the desired polymerization, the oil being then rapidly cooled to arrest polymerization. App. is described. (*Chem. Abs.*)

ABSTRACTS

Soaps

Edited by M. L. SHEELY

The Properties of Soaps Containing Starch. W. Kröner and G. Steinhoff. *Seifensieder-Ztg.* **63,** 272-5 (1936). Additions of starch reduce the tendency of soap cakes to lose weight during storage. The foaming power passes through a maximum when the starch addition amounts to 15%. Soaps containing starch have good washing power and do not reduce vat dyes unless the wash water is excessively alkaline. (*Chem. Abs.*)

The Technic of Preparing Caustic Potash Solutions for Making Soft Soap. Heinz Zilske. *Seifensieder-Ztg.* **63,** 576-8, 595-6 (1936). A number of practical suggestions are given as to apparatus and procedure for preparing KOH solutions and their use in preparing soft soaps both with and without filling. (*Chem. Abs.*)

Distillation of Fatty Acids in High-Vacuum Apparatus. Heinz Sallentien. *Rev. brasil, chim.* (Sao Paulo) **1,** 269-70 (1936). Fatty acids for candles should be distilled with steam superheated to 200-250° at the highest possible vacuum. (*Chem. Abs.*)

Myristic Acid. Julius Schaal. *Seifensieder-Ztg.* **63,** 695-6 (1936). The properties, uses and industrial production of myristic acid from fats in which it is present, e.g., coconut oil, are reviewed. (*Chem. Abs.*)

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Soaps

Edited by M. L. SHEELY

Purification of Glycerol Waters. Z. Askinazi and E. Tobler. *Masloboino Zhirovoe Delo* 12, 301-3 (1936). For the reduction of the content of nonvolatile matter, glycerol water was treated with 2% $FeSO_4$ at about 100°, and then stirred with $Ca(OH)_2$ to alkali reaction by forcing compressed air. Equally good results were obtained with the use of siderite and magentite. (*Chem. Abs.*)

Glycerine Simplifies Vulcanizing Process. *Chemical Industries* 34, 242 (1936). A departure from regular methods of vulcanizing and curing rubber which is expected to be of particular value for experimental work and other small-scale operations is the use of a hot liquid bath of glycerine. This process, which has given excellent results in practical application, greatly simplifies the processing by eliminating the vulcanizer and the air-bath. In a technical treatise on the manipulation of India rubber and the preparation of rubberized fabrics, Dr. T. O'Connor Sloane, expert on problems of rubber processing, emphasizes the importance in this process of a fluid which will not act injuriously upon the rubber and which will give a curing temperature without boiling away.

The use of glycerine meets both these requirements since it is not only entirely safe for use with rubber but, having a high boiling point of 290° C., can be heated to the necessary degree. The directions for glycerine-curing, as given by Dr. Sloane, are comparatively simple.

Glycerol Versatile Aid in Silk and Rayon Processing. *Am. Silk Rayon J.* 55, 19-20 (1936). The value of glycerol in textile processing lies in its high value as a dispersing agent and in its hygroscopic properties. In printing operations, it serves as a medium for wetting out the dry dyestuff powders; in aging its hygroscopicity is important, and in the steaming of printed fabrics it causes absorption of sufficient moisture properly to fix and fasten the printing colors. (*Chem. Abs.*)

PATENTS

Soap Compositions. U. S. 2,055,581. Granted to Jack Leben of Bushey, England, and assigned by him to Ormul Products, Limited, London.

1. A soap consisting essentially of an alkali metal salt of a higher fatty acid, associated with from 5 to 20% of an alkylolamine salt of salicylic acid, as a retarder of hydrolysis.

2. A soap consisting essentially of an alkali metal salt of a higher fatty acid in association with an alkylolamine salt of an aromatic carboxylic acid in a proportion of between 5 and 20% of the amount of the former, whereby the degree of hydrolysis of the alkali metal salt when dissolved in water, is reduced.

Soaps. U. S. 2,049,055, July 28, 1936. Stewart C. Fulton and Hans G. Vesterdal (to Standard Oil Development Company). An olefin containing more than 7 C atoms such as a product from oil cracking is treated with fuming sulfuric acid at a reaction temperature below 5° and the acid strength is reduced to below about 60% while the temperature is kept below about 5°; free acid is removed from the reaction mixture and an excess of aqueous alkali is added; the alkali mixture is heated to hydrolyze unstable compounds in it, and a stable soap is separated suitable for use with sea water, etc. (*Chem. Abs.*)

New Detergents Patented. French Patent 707,201. Raymond Vidal. Detergent compounds are formed by the union of anhydrous alkali carbonates with fatty and resin acids giving compounds soluble in water. Examples are the addition compounds of anhydrous sodium carbonate with abietic, oleic and copra fatty acids. Organic solvents such as cyclohexane, carbon tetrachloride, mineral oils and benzines may also be added to the reaction mass and these are rendered miscible with water. (*Soap* 12, No. 11, 70.)

Wetting and Foaming Agents Suitable for Use with Hard Water or Sea Water. U. S. 2,049,670, August 4, 1936. Arnon O. Snoddy and Wilfred S. Martin (to Procter & Gamble Company). A higher alcohol such as lauryl alcohol is caused to react with the reaction product of SO_3 on a metal chloride such as KCl (suitably in a porcelain ball mill). Alcohols formed from coconut oil also may be used. (*Chem. Abs.*)

Grooved Ridge Protects Advertising Matter in Center of Bar of Soap. U. S. 2,051,625. James Arthur Watt, Chicago. Manufacture of a bar of soap with a grooved outer ridge to protect advertising matter in center of soap from being rubbed out as soon as the soap is used. (*Chem. Ind.* 39, 513.)

Emulsions of Fatty Acids. German 632,481, July 8, 1936 (Cl. 23c. 2). Fettsäure-und Glyzerin-Fabrik G. m. b. H. Commercial fatty acids, consisting mainly of unsaturated acids of the oleic acid series, are fractionally distilled and the fraction b_3 above 200° is partly sulfonated and then emulsified in water. The products are useful in the textile industry, e.g., as lubricants for wool. (*Chem. Abs.*)

Glycerine Used in Shortening Compound. Canadian 359,911, August 18, 1936. Herbert S. Coith, Albert S. Richardson and Verling M. Votaw (to Procter & Gamble Company). Previously refined and deodorized edible fat having a substantially lard-like consistency at room temperature and consisting essentially of triglycerides or predominantly unsaturated higher aliphatic acids is improved by mixing glycerol with the molten fat, and heating sufficiently to increase the combined glycerol content of the fat in amount not less than 0.3% of the total weight of the resulting glycerides. (*Chem. Abs.*)

Glycerine Used in Shortening Compound. Canadian 359,912, August 18, 1936. Herbert S. Coith, Albert S. Richardson and Verling M. Votaw (to Procter & Gamble Company). Plastic shortening is produced by steam-deodorizing a hard fat, adding an amount of glycerol sufficient to produce a synthetic fat containing not less than 19% combined glycerol and mixing with a softer edible fat consisting essentially of triglyceride as a plasticizer and to render it suitable for cakes containing more sugar than flour. (*Chem. Abs.*)