INFLUENCE OF pH, TYPE OF FAT AND PANCREATIC EXTRACT UPON LIPOLYSIS IN HOMOGENIZED MILK. I. A. Gould. J. Dairy Sci. *25*, 869-76 (1942). Opt. pH for lipase action in a homogenized rennet whey-fat emulsion was within the range of pH 8 to pH 9. Low pH values adversely and permanently affect lipase activity. Milk lipase is a nonspecific fat splitting enzyme capable of producing lipolysis upon a wide variety of fatty substrates under favorable conditions. Homogenization creates a condition which greatly enhances lipolysis as produced by pancreatic ext.

PATENTS

CHEMICAL TREATMENT OF BLACK LIQUOR AND TALL OIL. J. Ross and J. H. Percy (Colgate-Palmolive-Peet Co.). *U. S. 2,296,952.* The process of recovering by-products of black liquor comprises partially acidifying and extg. the black liquor with tall oil to obtain a tall oil ext. and an improved black liquor raffinate, and salting out the tall oil soaps from the black liquor raffinate in the presence of excess caustic alkali under non-oxidizing conditions.

ACIDIFIED DIATOMACEOUS EARTH FILTER AID. M. A. Harrison (Dicalite Co.). *U. S. 2,296,850.* In the clarification of a fatty substance the color of which is darkened by contact with diatomaceous earth, there is the step of adding to said fat a diatomaceous earth filter-aid and a quantity of a free acid only sufficient to offset said darkening effect and thereafter removing from said fat said filter-aid and substances entrained therein.

WATER-DISPERSIBLE LECITHIN. S. Jordan. *U. S. 2,296,933.* A water-dispersible lecithin comprises com. lecithin free of oil or fatty material dissolved in 20-25% by wt. of the lecithin in a mixt. of 75% monoethyl ether of diethylene glycol and 25% diethyl ether of diethylene glycol.

PHOSPHATIDIC COMPOSITION. Benjamin H. Thurman (Refining Inc.). *U. S. 2,280,427.* The process of prepg. a non-foaming high ratio shortening contg. modified phosphatidic material, comprises, addg. a small amt. of phosphatidic material to said shortening, heating the same in the presence of an adsorbent to a temp. and for a time sufficient to destroy the foaming characteristics but insufficient to destroy the high ratio properties of said phosphatidic material, and filtering the resulting mixt. in the presence of an adsorbent.

GELATINOUS SHEETS, FILMS, AND PLASTIC MASSES. A. W. Ralston (Armour and Co.). *U. S. 2,298,162.* A hardened gelatin film contains a monoglyceride of a fat acid as a softening agent.

METHOD OF SEPARATING FATTY ACIDS. L. D. Myers and V. J. Muckerheide (Emery Industries, Inc.). *U. S. 2,298,501.* The method of conditioning a fatty acid stock to promote the formation of crystals having good filtering characteristics in solvent soln. of the stock cooled to a predetd. temp. comprises adding neutral fat to the stock in such amt. that the total fat content of the stock resides within the range of from approx. .2% to approx. 3½%.

PROTECTIVE COATING. H. E. Rogers (Teletype Corp.). *U. S. 2,298,513.* The anticorrosive dip soln. is a 12-20% soln. of wool fat in trichloroethylene which is used at a temp. of 150-90°F.

MANUFACTURE OF MODIFIED ORGANIC ISOCOLLOIDS. L. Auer. *U. S. 2,298,270-1.* Oils are bodied by heating in the presence of polar org. compds.

MODIFICATION OF FATTY OILS. L. Auer. *U. S. 2,298,-914-9.* In bodying, the oils are heated with a small amt. of org. halogen, nitrosulfonic or cyclic compds., or org. or inorg. acid.

PLASTIC MASSES SIMILAR TO FACTICE AND LINOXYN. W. Wolff (General Aniline & Film Corp.). *U. S. 2,298,078.* Plastic masses similar to factice and linoxyn comprises interpolymerization products of glycol divinyl ethers and of esters of satd. alcs. with tall oil.

METHOD OF PRODUCING ALKYD RESINS. R. H. Potts and J. E. McKee (Armour and Co.). *U. S. 2,297,716.* A synthetic alkyd resin comprises the reaction product of glycerol, phthalic anhydride and a special cottonseed oil fatty acid compn. having the lower boiling constituents of normal cottonseed oil fatty acids eliminated.

SYNTHETIC PROTEIN RESIN AND METHOD OF MAKING THE SAME. F. C. Atwood (Atlantic Research Associates, Inc.). *U. S. 2,298,269.* The product is a stable, water-dispersible hydrated casein straight chain alkyl amine higher fat acid soap resin.

PROCESS OF FLOTATION SEPARATION OF ORE. H. M. Corley, A. W. Ralston, and E. W. Segebrecht (Armour and Co.). *U. S. 2,298.281.* The process of sepg. ores comprises subjecting the ore to flotation sepn. in the presence of a flotation agent comprising a mixt. of at least 1 primary aliphatic amine and at least 1 aliphatic nitrile, each contg. at least 6 C atoms, the amt. of nitrile being about 20% to about 65% of the combined quantity of amine and nitrile.

Abstracts

Soaps

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ROSIN AND TALL OIL: APPLICATION IN THE SOAP INDUSTRY. Anon. *Soap, Perfumery and Essential Oil Record 33*, 260-62 (1942). Characteristics of rosin and of tall oil, and methods of using these in soap products are given.

Notes from Germany describe the following: (1) A potash paste soap is prepd. using caustic potash, 8 parts; water, 10 parts; tall oil, 20 parts. KCl, or linseed and soybean fatty acids reduce the viscosity. (2) For a curd soap, use 50 parts of hard fat, 20 parts tall oil, 20 parts coco fatty acids, and 10 parts peanut oil fatty acids; 2% bleach (Blankit) makes a light yellow, odorless soap. (3) For a toilet soap there has been used a blend using: hard fat, 53.7%; tallow, 29%; and purified tall oil, 12.1%.

THE MEXICAN SOAP MARKET. Alic. R. Gerstell. *Soap 18*, No. 10, 25-27 (1942). Consumption was 5 lbs. per capita 10 yrs. ago, is now 10 lbs. Brown laundry soap

is by far the most common. Toilet soap, liquid soap and household cleaners are little used.

Shaving soaps, household insecticides and other products are briefly discussed.

MAKING A LIQUID COCONUT OIL SOAP. Technical Correspondence. *Textile Colorist 64,* 458 (1942). Directions are given.

COCONUT OIL SOAPS SAPONIFIED 100% IN THE COLD. Harry Cook. *Tacnoquimica (Buenos Aires) 2,* No. 6, 35, 34-35 (1942). Shop practice and chem. control suitable for small factories are described.

SOAPS FOR GLOVE CLEANING. Paul I. Smith. *Soap 18,* No. 10, 23-4 (1942). Method of prepn. of a standard cleaning soap and of a standard wet process soap are given. Procedures in com. glove-cleaning are described.

SALTING OUT. Andreas Treffler. *Soap 18,* No. 1, 24 (1942). Na soaps are normally purified by salting out with NaOH and salt. This is possible if the protein content is not too high and the water supply is not too hard. The reactions of proteins in soaps and their removal are discussed.

Proteins are formed by the condensation of two amino acids at the CONH group; they swell through the action of water and are split by alkalies. Water combines to form COOH groups which are subject to saponification; soaps are formed both from fatty acids and amino acids. Emulsions are produced by these acids which can be broken by (a) pet. ether, in which the f. a. are soluble, (b) distillation and (c) centrifuging at the iso-electric point of amino acids with sulfuric acid. These methods are normally not necessary as the protein content is usually not high enough to warrant such expensive operations.

Amino acids have a higher specific gravity than fatty acids; when saponified the higher molecular wt. acids remain emulsified in the soap layer; the lower amino acids are found in the soap lye which necessitates further salting out. These amino acids exert a high emulsifying power and may hold some soap back in the lye. If the amino acid content is low, it may settle at the bottom of the soap layer; if the content is high, it will remain emulsified in the soap.

This difficulty can be alleviated by adding a SiO_2 radical to amino acids which increases their specific gravity so much that after salting out, they drop as precipitates through the soap and lye layers to the bottom of the soap kettle. For best results the soap should be neutral, the 40 Bé Na silicate must be equal in wt. to that of the amino acids present. and the volume of water added to the soap in the first treatment must be twice as large as usual. The silicate process also ppts. the Ca, Mg and Fe cations present in hard water.

RELATION OF CALCIUM SOAPS TO STAPHYLOCOCCAL INFECTIONS IN THE SKIN. K. K. Jones and Marie Lorenz. *J. Investigative Dermatol. 4,* 69-80 (1941). Ca ions in oil-water mixts. contg. bacteria facilitate the passage of bacteria into the oil layer. Bacteria are viable for at least 2 wks. time in Ca soap ppts. The incorporation of avirulent strains of staphylococci into Ca soap-oil mixts. increases the ability of the organisms to enter follicles and sebaceous glands and produce infection. The prevention of Ca soap formation in wash water and its deposition on skin, hair or clothing is an active prophylactic measure. Ca soaps may protect bacteria against disinfecting and bacteriostatic agents. (*Chem. Abs.*)

PATENTS

METHOD OF AND APPARATUS FOR INSERTING INDICIA IN SOAP. J. Garvey, A. Garvey, and Horace M. Garvey. *U. S. 2,296,842.*

SHAVING CREAM. L. D. Myers (Emery Industries, Inc.). *U. S. 2,298,019.* A shaving compn. contg. soap 60% to 80% by wt. of sapond, palmitic acid and 40% to 20% by wt. of sapond. stearic acid, the said shaving compn. being devoid of cocoanut oil soaps and being characterized by its latherability and by the stability of the lather produced from it is described.

DETERGENT COMPOSITION. Coleman R. Caryl (American Cyanamid Co.). *U. S. 2,295,831.* A wetting, sudsing detergent agent comprises a spray-dried mixt. comprising 5-15% by wt. of an alkali metal salt of dioctyl sulfosuccinate, 5-20% by wt. of tetra sodium pyrophosphate and at least 50% by wt. of Na_2SO_4.

GERMICIDAL SOAP. James A. Smith. *U. S. 2,296,121.* A germicidal soap compn. comprises the combination of a soap base having a moisture content within the range of 0.3% to 20% with finely divided crystals of Chloramine-T dispersed throughout the soap, said Chloramine-T crystals being coated with mineral oil and being in such proportion as to release from 11.5% to 13% of chlorine by wt. thereof, when the compn. is in contact with water.

PROCESS FOR THE SEPARATION OF UNSAPONIFIABLE MATTER FROM SAPONIFIABLE MATERIALS CONTAINING THE SAME. Henry W. F. Lorenz. *U. S. 2,262,950.* A continuous process for the manufacture of soap and glycerol and recovery of the cholesterol, phytosterol and other volatile matter, consists in the treatment of fats and fatty oils with an alkaline medium sufficient to effect saponification, the subjection of a flowing stream of the composition thus formed to heat, without local overheating, to a temperature in excess of 250° C. with the exclusion of air, in a closed vessel with the aid of diminished pressure, in countercurrent flow with a current of steam, for the volatilization and recovery of the glycerine produced, and for the volatilization and removal of cholesterol and/or phytosterol, and other volatile matter.

TEXTILE TREATMENT AGENT. Reginald John W. Reynolds, *et al.* (Imperial Chem. Ind., Limited). *U. S. 2,292,479.* New types of di-quaternary ammonium compds. are described.

COSMETIC PREPARATION. Benjamin R. Harris. *U. S. 2,294,233.* A cosmetic prepn. adapted for application to the face, being essentially devoid of the tendency to lather, comprises stearic acid, aq. material, soap, and a proportion of a higher fatty acid ester of a polyglycerol, said ester having at least one free polyglycerol hydroxy group.

CAPILLARY-ACTIVE AGENT. Adrianus Johannes van Peski and Willem Coltof (Shell Development Company). *U. S. 2,294,259.* A capillary-active agent is a triethanolamine salt of an acid ester prepd. by reacting a substituted succinic acid anhydride wherein the substituent is an alkenyl group containing at least 10 carbon atoms, with an alc., said reaction taking place without the elimination of water.