appears to be no preferential hydrolysis of particular fatty acids. The amts. of free fatty acids which occur normally in tissues are very small, averaging 2.2 mg. per g. of dry, fat-free mouse tissue and 2.3% of the acetone-sol. lipids of cat liver. These values, due to limitations of the exptl. methods may be regarded as max. Autolysis, even for short periods of time, greatly increases the amts. of free fatty acids in these tissues.

ROLE OF FAT IN INCISOR DEPIGMENTATION OF VITAMIN E-DEFICIENT RATS. H. Granados and H. Dam. *Science 101*, 250-1 (1945). Depigmentation of incisors in vitamin E-deficient rats requires the presence of fat, presumably unsatd. fatty acids, in the diet, a finding which suggests that the phenomenon is related to some abnormal deposition or reaction of fat in the ameloblasts. A previous observation of persistence of dental pigment in rats reared on an E-deficient diet for 167 days cannot be compared with our findings, due to the fact that the diet used was not reported. It is possible that this contradictory finding could be explained by differences in dietary fat content.

PATENTS

FINISHING COMPOSITION AND METHOD OF MAKING. Jacob M. Fain (Foster D. Snell, Inc.). *U. S. 2,368,126.* A finishing compn. comprises the product of reaction of shellac with a soln. in a fatty drying oil of a bivalent metal oxide that is sol. in hot drying oils and substantially ineffective as an accelerator of oxidation thereof, a paint oil drier, and a volatile solvent for the product of reaction.

COATING COMPOSITION. Laurence L. Rector and Charles L. Cron. *U. S. 2,367,376.* Blown castor oil is one of the constituents of this cellulose contg. prepn.

METHOD OF PREPARING HYDROXY HEAVY METAL SOAP COMPOSITIONS. Arthur Minich. *U. S. 2,368,560.* Process of producing a dispersed hydroxy Cu soap in a dehydrated org. vehicle comprises: thermally dehydrating in a substantially water immiscible org. vehicle an aq. magma comprising the reaction product of an alkali soap of at least one substantially water-insol. non-volatile org. acid, free alkali hydroxide and a sufficient quantity of a water-sol. Cu salt to completely react with the alkali soap and the free alkali hydroxide, whereby said hydroxy Cu soap is finally dispersed in substantially insol. form in said dehydrated org. vehicle: The products are used as fungicides and insecticides.

TREATMENT OF OIL OR FAT CONTAINING MATERIAL FOR THE RECOVERY OF OIL OR FAT THEREFROM. Joseph Charles Kernot and Victor Sieberstein. *U. S. 2,368,028.* This rendering app. makes use of rendering under water with steam under pressure. Novelty in the invention deals with means of stirring, means of skimming fat and the use of 0.5% soda ash in the water.

METALLIC SOAPS OF TALL OIL. Eduard Färber (Polyxor Chemical Co., Inc.). *U. S. 2,367,462.* The process consists in mixing tall oil at above 100° with a neutralizing agent selected from the group consisting of the inorg. oxides and hydroxides, the quantity of the neutralizing agent being not more than about 1/3 and not much less than about 1/20 of the quantity calcd. for the neutralization of the total acidity of the tall oil heating the mass to about 300° and evapg. therefrom at about atm. pressure until the residue is substantially neutral. The product can be used as a lubricant or to rust proof metals.

SEALING COMPOSITION. Laurence L. Rector and Charles L. Cron. *U. S. 2,367,375.* This cellulose product is placticized with castor oil and/or Bu stearate.

METHODS AND MEANS FOR TREATING GLYCERIDE OILS OF THE UNSATURATED ESTER TYPE. Robert A. Carleton. *U. S. 2,367,666.* This invention comprises a system of improving the drying properties of oils by polymerization of the unsatd. constituents, hydrolyzing the oil and removing the satd. fat acids (or non drying components) by distn. The equipment as described is novel in that it operates in a continuous manner rather than by intermittent steps.

ANTIOXIDANT. Percy A. Wells and Roy W. Riemenschneider (Claude R. Wickard as Secretary of Agriculture of the U.S.A.). *U. S. 2,368,435.* Fat acid esters of ascorbic acids are used as antioxidants, i.e., preservatives, for fats and oils.

BETAINE ESTERS. John Lee (Hoffmann-La Roche, Inc.). *U. S. 2,367,878.* Among the compds. illustrated in this invention are many which contain a fat acid radical, a halogen and in some cases an aromatic radical. The products are suitable antiseptic, disinfecting, preserving and wetting agents.

Abstracts

Soaps

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FATTY ACIDS IN POST-WAR SOAPS. Dale Stingley. *Soap 21*, No. 2, 63-65 (1945). The post-war future of the use of fatty acids in soaps is reviewed. War restrictions necessitated the use of larger quantities than had formerly been used. However, soap-makers have found many advantages in using fatty acids. These include: ease in saponification, more complete saponification resulting in more uniform soap products, flexible operation of plant equipment and operating economies.

RAPID SETTLING IN THE COURSE OF LABORATORY SOAP BOILING. H. G. Kirschenbauer. *Soap, Perfumery & Cosmetics 18*, 47-8 (January, 1945). This article describes a method in which gravity settling is replaced by centrifugal separation of neat soap and nigre. Advantages gained include the following: time required is reduced to about 8 hours, results are definitely reproducible and samples can be made to duplicate quite closely corresponding soaps made on the kettle floor, with regard to appearance and comp.

SPECIAL DETERGENTS: STANDARD METHODS OF SAMPLING AND CHEMICAL ANALYSIS. *Soap, Perfumery & Cosmetics 18*, 53-6 (1945). This article surveys various inorganic alkaline detergents such as caustic soda, soda ash, modified soda sesquicarbonate type, sodium metasilicate and sodium sesquisilicate, trisodium phos-

phate, and tetrasodium pyrophosphate. Methods of sampling, analyses for total alkalinity and various constituents are described giving procedure and method of calculation.

SYNTHETIC DETERGENTS FOR HARD WATER AND SEA WATER USAGE. Jay C. Harris. *Rayon Textile Monthly 26,* 83-86 (1945). This article compares synthetic detergents or their combinations with soap or alkaline builders under extremely hard water or sea water conditions. Results are graphically depicted and discussed.

BY-PRODUCTS OF PETROLEUM. *Soap, Perfumery & Cosmetics 18,* 32-3 (1945). Naphthenic acids produced in the refining of petroleum may be used in soap production. The most useful acids are those with an acid number of 200-275, boiling point of 240-300 degrees, iodine number 0-12 and an unsaponifiable content of 10 per cent. The chief disadvantages are colour and odour.

PRODUCTION OF RAW MATERIALS FOR THE SOAP INDUSTRY FROM PARAFFIN. Richard Neu. *Pharm. Zentralhalle 84,* 239-44 (1943). Known methods of prepg. carboxylic and sulfonic acids suitable for making detergents by oxidation or sulfonation of long-chain paraffin hydrocarbons are discussed. (*Chem. Abs.*)

DEODORANT SOAP. *Soap, Perfumery & Cosmetics 18,* 145 (1945). An improved deodorant toilet soap is described in which chromium oxide, hexamethylene tetramine and aluminum acetate are added to the soap base.

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BAR SOAP. Harold G. Houlton (The Procter & Gamble Co.). *U. S. 2,358,976.* A low glycerine content bar soap is prepared, characterized by its property of dispersing the insoluble alkaline earth salts of fatty acids and made from fats consisting not more than about twenty per cent of tropical nut oils combined as sodium and potassium soaps.

CHEMICAL PROCESSES AND PRODUCTS THEREOF. Robert Bangs Colgate and John Ross (Colgate-Palmolive-Peet Co.). *U. S. 2,359,404.* A process of hydrogenating fatty acids for soap making by treating the unsaturated compound with elements from the group consisting of selenium, sulphur and tellurium under non-oxidizing conditions at high temperatures.

SOAP CUTTER. Robert V. Burt (The Procter & Gamble Co.). *U. S. 2,359,405.* A soap cutting machine is described which will cut a continuously formed segment of relatively soft materials into segments such as bars.

SOAP MANUFACTURE. Vance N. Jenkins and Chester E. Wilson (Union Oil Co.). *U. S. 2,361,457.* A process is described in which soaps are manufactured and separated by preparing water-soluble soaps of a mixture of strong acids and oil-soluble soaps of weaker organic acids, and separating layers formed.

HYDROGENATION OF FATTY ACID SOAPS. John Ross and Joseph Abraham Valentine Turck, Jr. (Colgate-Palmolive-Peet Co.). *U. S. 2,363,694.* A process is described of hydrogenating water-soluble soaps of unsaturated higher fatty acids which comprises treating a soap of higher unsaturated fatty acids while dissolved in water with hydrogen in the presence of a nickel hydrogenation catalyst.

CONDENSATION PRODUCTS. Th Boldschmidt A.-G. *Belg. 444,625.* Alkyl oxides are caused to react with alcs. contg. 7 or more C atoms. prepd. from olefins by the action of CO and H in presence of catalysts. The products are suitable as wetting agents and emulsifiers. (*Chem. Abs.*)

PRODUCTS OF HIGH MOLECULAR WEIGHT. I. G. Farbenind. A.-G. *Belg. 445,580.* Compds. contg. several ethylene oxide groups are made to react with substances contg. more than 2 OH, amino, COOH and (or) amido groups, each of which contains at least one reactive H atom. The products can be used as detergents, coatings, etc. (*Chem. Abs.*)

WASHING COMPOUNDS. I. G. Farbenind. A.-G. *Belg. 443,917.* During the manuf. of soaps from fats or fatty acids, sapon. is carried out by compds. of the nature of sulfonic acid halides which contain halogens, O and S and can be obtained by the action of halogens and SO_2 on nonaromatic hydrocarbons. (*Chem. Abs.*)