Higher alcohols. I. G. Farbenind. A. G. *Ger. 675,658. Cl. 120 Gr. 5.02.* High mol. wt. alcs. are prepd. from low mol. aldehydes by condensation in the presence of oxides or hydroxides of metals of the second and third groups of the periodic system.

Cake. M. B. Katzman (to The Emulsol Corp.) *U. S. 2,176,077-8.* Reaction products of tetra-phosphoric acid with alcs. derived from fats are added to cake mixes or batters.

Preparation of alkylolamine derivatives. M. B. Katzman and A. K. Ejstein (to The Emulsol Corp.). *U. S. 2,173,448.* Esters of alkylamines with fat acids are prepd. by heating the compds. in the presence of steam.

Egg composition. M. B. Katzman (to The Emulsol Corp.) *U. S. 2,176,078.* Reaction products of phosphoric acid and fat alcs. are added to eggs.

Acid substituted hydroxy alkyl-amines and process of making same. W. Kritchevsky. *U. S. 2,173,058.* Method of prepg. an ester comprising triethanolamine in which one H of the OH groups is substituted by a higher fat acid radical.

Isomerising fatty oils and fats. N. V. De-Bataafsche Petroleum Maatschappij. *Brit. 502,390.* Fats and oils are hardened by isomerization. Isomerization is by treating with SO_2 at 100-200° C. and at press. sufficient to maintain the SO_2 in a liquid state.

Polymerization of drying oil. S. Caplan (to Harvel Research Corp.). *U. S. 2,176,058.* Diethyl sulfate is dissolved in China wood oil and the charge is heated at about 105°C. to a predetermined degree of polymerization.

Polymerized nitriles and processes of preparing the same. A. W. Ralston (to Armour & Co.). *U. S. 2,175,092.* The process comprises reacting fatty acid nitriles with $Al\ Cl_3$ and hydrolyzing the resulting reaction product.

Process of producing nitriles. Otto Nicodemus and Otto Wulff (to I. G. Farbenindustrie Aktiengesellschaft). *U. S. 2,177,619.* Fatty acids or their volatilized esters and NH_3 are passed over a dehydrating catalyst at a temp. between 320°-420° C. to produce nitriles.

Alcoholysis of glycerides. Virgil L. Hansley (to E. I. du Pont de Nemours & Co.). *U. S. 2,177,407.* Fatty acids and monohydric aliphatic alcs. are reacted in absence of catalyst at 175° to 300° C. under press. corresponding to the above temps.

ABSTRACTS

Soaps

Edited by M. L. SHEELY

Further investigations in the soap industry. Jar. Hojka. *Ceskoslov. Mydlar Vonavkar 16,* 62-3(1938) *Chem. Obzor* 14, *Abstracts* 187. H. discusses some expts. with Tetrom B, a prepn. consisting principally of tetrahydroxymethane, which combines with acids and OH groups, forming compds. of unusual properties. The compds. formed with long-chain hydrocarbons will have some significance in the soap industry.

Soap detergency study. R. L. Dutta and P. K. Ghose. *Indian Soap J. 6,* 4-5(1939). A normally grained soap in which the entire stock charge is converted into a neat soap shows far greater detergency than a fitted soap. Experimental results show that although no great difference in the constants could be noticed, the nigre has a much greater detergency than the fit, and the detergency of the original soap equals that of the nigre. The figures obtained after standard detergency tests were:

	Optimum Concentration
Original soap	0.15%
Fitted soap	0.25%
Nigre	0.15%

It can be deduced that some molecular fatty acids favoring wetting and some highly unsaturated fatty acids favoring emulsification had passed into the nigre thereby maintaining its detergency to the level of the original soap mixture and lowering the detergency of the fitted soap to a considerable degree.

Sweating of soaps. P. N. Das Gupta. *Indian Soap J. 5,* 324-6(1939). As a result of a study of different workers, the causes of sweating of milled toilet soaps can be stated as follows: (1) presence of free glycerol, (2) presence of low-mol, fat acid soaps, (3) presence of oleate soap and (4) presence of free alkali.

Irritation of the throat from cigaret smoking. H. C. Ballenger. *Arch. Otolaryngol. 29,* 115; *Med. Times 67,* 232-3(1939). No relation was found between irritation produced by cigarets and the hygroscopic agent used in their manufacture (diethylene and glycol and glycerol).

PATENTS

Making soap. Lorenz Patents Corporation. *Brit. 504,117.* This corresponds to *Fr. 828,022.* The anhyd. soap falls as a dry powder to the floor and is removed by a screw conveyor through a door. In *Brit. 504,118,* the temp. of the super-heated steam is maintained above the m.p. of the anhyd. soap, the reaction being effected in a retort at subatm. pressure. In app. described, the soap particles are fed by a rotary hopper into a chamber beneath the retort that is filled with inert gas at a temp. below the melting point of the soap, the soap being thereby sepd. into particles that harden as they fall to the bottom of the chamber.

Separating a glycerol-water mixture. Karl Muller and Volkmar Hanig and Comp. *Ger. 674,525.* In sepg. a mixt. of glycerol and water by fractionation, the steam laden with glycerol is passed into a mech. separator, such as a centrifugal separator, prior to entry into the condenser. App. is described.

Synthetic resins. Kenneth R. Brown to the Atlas Powder Company. *Brit. 505,016.* Resins are prepared by heating together under esterifying conditions polybasic org. acids capable of withstanding resinification temps. without decomposition prior to resin formation (or their anhydrides) and a straight-chain hexahydric alc. or a polyhydroxy inner ether derived therefrom, the ratio of equivs. of acid to alc. or ether being not greater than about 3:1. In examples, mannitol is condensed with malic acid or phthalic anhydride (1) and sorbitol is condensed with I or

ABSTRACTS

Soaps

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(and) maleic anhydride, with succinic or citric acid or with tartaric acid monohydrate. Air-drying resins are produced if part of the polybasic acids which should comprise phthalic acid (II) or I is replaced by air-drying acids, e.g., eleostearic, linoleic, or linolenic acids or chinawood, linseed, menhaden or perilla oil fatty acids. Oil-modified resins are produced where the polybasic acid comprise II or I and part thereof is replaced by a monobasic, semi- or non drying acid, preferably contg. at least 12 C atoms and not more than I double bond, e.g., lauric, myristic, oleic palmitic, recinoleic or stearic acids, lard or tallow fatty acids, castor, coconut, cottonseed, maize, olive or soybean oil fatty acids. Among examples, sorbitol is condensed with I and oleic or ricinoleic acid. The products, with or without other materials, e.g., cellulose derivs., solvents, plasticizers, colors, may be used in coating compns. impregnants, binders, adhesives, insulating material or molding compns.

FATTY ACID SALTS. Raymond Vidal. *Fr. 838,279.* A fatty acid is caused to react with an alkali carbonate in a dimixt, with an alkali sulfite or bisulfite, the proportion of alkali carbonate being at least 1 mol. to each mol. of fatty acid. Sulfite carbonic derivs. of oleic acid or other fatty acid are obtained. The products may be used for washing and bleaching textiles, for removing wool from sheep skins, and scouring silk.

LACQUERS. Fritz Seebach to Bakelite Ges. m.b.H. *Ger. 678,366.* A phenol-aldehyde resin is heated with a fatty oil, e.g., wood oil, and an org. acid, e.g., a resin acid or fatty acid or a sulfonic acid having a dispersing action, and the mixt. is stirred into alk. water, which may contain a stabilizing agent, e.g., glue or casein. Pigments, plasticizers, natural resins and other appropriate substances may be added at any stage. Examples are given.

HOUSEHOLD DETERGENT. Colgate-Palmolive-Peet Co. *Can. 383,985.* A product suitable for use as a domestic detergent is formed by causing 1 molecular proportion of fatty oil to react with 2 molecular proportions of anyhdrous glycerine and an excess over 3 molecular proportions of fuming sulfuric acid. The quantity and strength of sulfuric acid should be such that the concentration of excess sulfuric acid will be about 99.3%.

GLYCERYL OLEO STEARATE. Frank Atkins to Tokalon, Ltd. *Brit. 511,827.* A mixture of dairy cream, olive oil and pancreatin, preferably slightly warmed, is treated with an alkaline bicarbonate and heated. After the resulting effervescence has subsided, the desired and improved cosmetic ingredient will be found as a highly aerated or spongy mass on the top of the mixture, from which it can be removed if desired. The process is carried out in a single stage.

The resulting product, "glyceryl oleo stearate," will consist mainly of the glyceryl esters of stearic, oleic, palmitic, myristic, and other fatty acids which are present in the cream and olive oil, and which are obtained in a form suitable for incorporation in face creams and similar cosmetic products without further treatment, also in face powders.

PROCESS FOR MAKING PROTECTIVE COATING AND PRODUCT THEREOF. Jean Paul Crouet and Kam Nath Kathju to Weeks and Company. *Brit. 502,797.* A process for making a pigmented base material for protective coatings, wherein the pigment particles shortly after being enveloped in a monomolecular layer of a fatty acid or an ester of an acid are incorporated in a natural or synthetic resinous product which is neutral or practically neutral, soluble in the solvents of cellulose lacquers, synthetic enamels, enamel paints and the like, or a non-drying type and non-hygroscopic in order to protect the monomolecular layer from oxidation or destruction.

WASHING AGENT. Kurt Jochum, Herman Geier and Karl Pauser to General Aniline Works. *U. S. 2,159,381.* A washing agent composed of sodium pyrophosphate and fatty acid taurides.

PREPARING A RUBBER DISPERSION FROM LATEX. Nicolaas Hendrik van Harpen to Algemeene Vereeniging Van rubberplanters ter Oostkust van Sumatra. *U. S. 2,161,731.* The process of preparing a concentrated rubber dispersion from latex, comprising mixing the latex with a dispersion of a colloid in a soap solution and centrifuging the mixture whereby the lighter cream layer is separated from the heavier layer of the under latex.

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Committee Reports