Abstracts

Soaps

Edited by M. L. SHEELY

DERMATITIS CONTROL. Joseph Klaude. *Ind. Med. 9,* 221-31 (1940). Soaps and other cleansing agents are responsible for an enormous number of cases of industrial dermatitis. The application of protective hand cream is helpful and 8 formulas are given. A mixture of sulfonated neatsfoot oil and liquid petrolatum, 45 parts each, with 10 parts of 25% aq. solution of gelatin, or 10 ppts. of corn meal, is very effective as an abrasive soap. Dermatitis develops after continued exposure to soaps either because of an allergy or because the threshold of the skin to irritation from the alkalies liberated on hydrolysis is decreased. *(Chem. Abs.)*

CHAIN-CONVEYOR SOAPS. A. H. Warth. *The Crown 28,* No. 5, 16, 38 (1940). A lubricant for the conveyor chains in a bottling plant should be made of an olive oil foot base, contain no alkali, be sol. in 10 pts. of hot alc. and be somewhat soluble in cold water. *(Chem. Abs.)*

STABILIZATION OF SUSPENSIONS BY ADSORPTION LAYERS. *XX.* STABILIZATION OF SUSPENSIONS OF TITANIUM DIOXIDE IN HYDROCARBON MEDIUM BY SOAPS OF MULTIVALENT METALS. L. R. Solov'eva. *Colloid J. (USSR) 5,* 883-97 (1939). From sedimentometric analysis of TiO_2 suspensions in benzene their largest (r_1), smallest (r_2) and most probable ^{2}(R) radius were calculated. Addn. of 1% of oleic acid to benzene contg. 2% TiO_2 reduced, e.g., r_1 from 29 to 14, r_2 from 17 to 6 and R from 24 to 7.5 mu.^{2} Addition of 1% of Mg oleate, Ca oleate, Al oleate or Ca stearate lowers r from 28 to 10, from 34 to 6, from 25 to 7.5 and from 22 to 8 mu, resp.; 0.1% of Al stearate lowers r from 26 to 7.5 mu. *(Chem. Abs.)*

PROPERTIES OF COMMERCIAL TOILET AND MEDICINAL SOAPS. Seizi Kawai. *J. Soc. Chem. Ind. Japan 43, Suppl. binding* 80 (1940). Av. analyses of 13 toilet soaps were as follows: soap 95.93, free alkali 0.029, free fat and unsaponifiable 0.55, chlorides 0.62, glycerol 2.13%. Consts. of mixed fat acids were I no. 44.7, neutralization no. 213.3, liquid acids 37.79 and solid acids 62.21%. Av. phys. properties of a 0.25% solution of the 13 soaps were: relative surface tension at 20°, 0.178; 40°, 0.237; lathering coeff. at 20° after 1 min. 62,770, after 5 min. 26,000, at 40° after 1 min. 85,450, after 5 min. 32,140. *(Chem. Abs.)*

PATENTS

NONHYDROSCOPIC MATCH COMPOSITIONS. Albert B. Doran to Herbert MacMillan. *U.S. 2,193,124.* An igniting material is used with a bulk filler and with a combined hardener and binder formed by esterifying a polyhydric alc. such as glycerol with a polybasic acid such as phthalic anhydride.

PREPARING TABLETS OF MATERIALS SUCH AS HYGROSCOPIC MEDICINES. Ferdinand W. Nitardy and Lionel T. Andrews to E. R. Squibb and Sons. *U.S. 2,191,678.* A water-insol. soap such as Mg stearate is used as a lubricant in compressing granular material such as NH_4 mandelate into tablets.

METAL-FREE SOAP. Robert Divine and Lauren Hitchcock to Hooker Electro-chemical Company. *U.S. 2,202,103.* The process for production of soap relatively free from metals tending to promote deterioration of soap which comprises saponifying a suitable fatty material by means of an aqueous solution of caustic soda, containing sensible quantities of such metals, in presence of a commensurate quantity of a sulphur compound which forms with said metals compounds that are relatively innocuous with respect to soap as well as relatively insoluble and tend to settle in fluid soap, allowing the products to settle and separate and removing the relatively metal-free upper or "neat soap" layer.

SOAP WRAPPER. Lawrence Strattner to West Virginia Pulp and Paper Co. *U.S. 2,206,829.* In combination, a cake of soap and a wrapper of paper therefor, said wrapper having one surface in contact with the soap and its outer surface adapted to carry printing or decoration, said wrapper containing a filler comprising calcium sulfite in an amount sufficient to prevent a substantial discoloration from alkali contained in the soap.

DETERGENT. Fred Weaver Muncie and Kenneth Russell (Colgate-Palmolive-Peet Co. *U.S. 2,204,433.* As a new composition of matter, a chemical compound consisting of beta methyl glycerine, one hydroxy group of which has been esterified by a long-chain fatty acid and another hydroxy group of which has been replaced by a sulphonate radical.

CONTINUOUSLY CRUTCHING. Robert Burt to the Procter and Gamble Co. *U.S. 2,203,980.* In the process of proportioning and mixing a viscous material similar to molten soap with a secondary ingredient of fluid nature, the steps which comprise causing a viscous material to flow under pressure through a conduit, causing said viscous material to develop power at a speed proportional to its flow, amplifying said power without altering said speed, continuously introducing by means of said amplified power an added ingredient of fluid nature into the flowing stream of viscous material in predetermined proportion to the quantity of viscous material flowing and automatically stopping the flow of said viscous material when the proportion of said added ingredient falls below a predetermined limit.

BITUMINIZING MINERAL ROAD AGGREGATE SUCH AS GRANITE GRAVEL. Ammund B. C. Dahlberg to A. Johnson and Co. *U.S. 2,192,284.* A method of bituminizing mineral road aggregate of acid character involves applying to the aggregate when wet a coating of slaked lime which is itself capable of forming water-insol. soap with oleic acid, and which chemically attacks the acid aggregate to form thin layers of a salt capable of reacting with oleic acid to form a water-insoluble soap, allowing the lime to act on the aggregate for at least 15 min., then applying oleic acid to the coated aggregate to form water-insoluble soaps with the lime and with the salt produced by the reaction between the lime and aggregate, and applying bituminous road binder which forms a close adhesion to the soaps and thus also to the mineral aggregate.