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load, the points obtained fall approx. on a straight line. If this line is extended to zero rate, it gives the "yield value," which is the max. load which, theoretically, would produce no movement of the plunger. Stickiness is measured by detg. the load required to withdraw a knife from the putty in a given time. H. M. Stark

An improved method for the determination of the screen residue in clay. C. A. Carlton. *Rubber Age* (N. Y.) 49, 275-6 (1939).—A mixt. of clay (100 g.), aq. $\text{Na}_2\text{P}_2\text{O}_7$ (25 cc. of a soln. contg. 20 g. of $\text{Na}_2\text{P}_2\text{O}_7$ per 1000 cc.) and water (375 cc.) is stirred in a high-speed stirrer (Hamilton-Beach Model No. 25 or A. S. T. M. stirrer for Method D-422) for 7 min., poured onto a 325-mesh screen (previously wet) slowly with a stream of water, washed through and detd. in the customary way. By preliminary wetting of the clay and with a peptizing agent, time is saved, the results are more precise and can be duplicated by different labs., and the life of the screen is prolonged. C. C. Davis

Transparent foil. Julian Buchwic and Jan Sachs. *Przeglad Tech.* 77, 475-80 (1938).—A review. E. A. A.

Physical-chemical properties of the elastic high-frequency waves. Physical catalyzers. Ultrafiltration and centrifugal ultrasound waves. N. Marinisco. *Génie civil* 113, 317-22 (1938).—A review of recent investigations and their application in industry. Ann N. Hird

The use of sulfur dioxide. Wm. D. McNally. *Ind. Med.* 2, 234-8 (1939).— SO_2 can be detected by odor in a concn. of 3-5 parts per million; 8-12 parts causes irritation of the throat and 20 parts irritation of the eyes and coughing. For prolonged exposure a max. of 10 parts may be withstood; for 0.5-1 hr. 50-100 parts and for short exposures 400-500 parts. Workmen become habituated to the inhalation of SO_2 . No permanent injury follows long exposure to small concns. or sudden exposure to high concns. James C. Munch

Products made by sulfonating fats and (higher) alcohols and their use in cosmetic articles. H. Fiedler. *Felle u. Seifen* 46, 35-6 (1939).—Formulas are discussed. J. W. Perry

Modern paint removers. Fritz Ohl. *Seifensieder-Ztg.* 65, 1031-3 (1938).—Cellulose derivs. (e. g., nitrocellulose, methylcellulose, cellulose acetate or glycolate) or combinations of phenol resins and Al soaps are recommended as thickeners and evapn. retarders. Choice of proper solvents for use in removing various types of finishes is discussed at length. J. W. Perry

The efficacy of naphthalene, paradichlorobenzene and hexachloroethane as insecticides for the control of the clothes moth. Walter Frey. *Arb. physiol. angew. Entomol. Berlin-Dahlem* 6, 189-97 (1939).—Lab. tests on clothes moths (*Tineola biselliella* Hummel) showed paradichlorobenzene (I) to be much more toxic to moths, larvae and eggs than naphthalene (II) or hexachloroethane (III); the latter is less toxic than II, even though it vaporizes faster. The relative rates of vaporization are: II (balls) 0.225, II (flakes) 1, II (crystals) 1.03, III (crystals) 7.96, I (granular crystals) 16.6. I should be used for packing clothes in air-tight storage chests. If the material is to be stored for a long period of time II (balls) should be used in conjunction with I. W. G. R.

Preparations for repelling foraging animals. Walter Meyer. *Seifensieder-Ztg.* 66, 689-90, 712-13 (1939).—Review of preps. usable to prevent attacks of deer, rabbits, etc., upon shrubbery, etc. A. Guillaudeau

Refractory concrete [heat-insulating agent] (Movshevich) 20. Vapor pressure and accommodation coeffs. of 4 nonvolatile compds.—vapor pressure of tri-m-tolyl phosphate over polyvinyl chloride plastics (Verhoeck, Marshall) 2. Electrodeposition of synthetic resins (Gemant) 4. Tool steels for making molds (for pressing artificial masses) (Briefs) 9. Further notes on soybean oil and linseed oil [soybeans as source of moldable plastics] (Seve) 26. Occurrence of atm. Pb resulting from use of colored blackboard crayons (Ruf, Fluck) 26. Ten years' experience in industrial sanitation in viscose-spinning

plants (Barthélémy) 23. Acrylic resins in safety glasses (Grassin) 19.

Wedler, Hans-W.: Klinik der Lungenasbestose. Klinische, statistische und röntgenologische Ergebnisse aus Reihenuntersuchungen an Asbestarbeitern über Krankheitsbild und Verlauf der Asbestose. Leipzig: G. Thieme. 152 pp. M. 6.50. Reviewed in *J. Ind. Hyg. Toxicol.* 21, 319 (1939).

Plastic masses. G. S. Petrov, A. G. Golubkova and V. K. Kozlova. *Russ.* 51,584, Aug. 31, 1937. Organic fillers are satd. with an aq. alkaline soln. of urea-aldehydic resins, NH_2 salts of aromatic monobasic or dibasic acids and an excess of NH_3 .

Synthetic plastic products. I. G. Farbenind. A.-G. (Rudolf Schröter and Wilhelm Becker, inventors). *Ger.* 676,062, May 24, 1939 (Cl. 39b. 4.03). Addn. to 675,401 (C. A. 33, 5545). Practically odorless plastic products are obtained by the action of an alkali, alk. earth or NH_3 polysulfide on an acetal or mercaptal contg. at least 2 halogen atoms linked to different C atoms. Examples are given of the manuf. of products from, *inter alia*, formaldehyde bis(β -chloroethyl) acetal, butyraldehyde bis(β -chloroethyl) acetal and formaldehyde bis(β -chloroethyl) mercaptal.

Molding compositions. Roelf A. van Linge. *Brit.* 506,553, May 31, 1939. See Dutch 44,502 (C. A. 33, 3487).

Urea-formaldehyde molding-powders. James M. Walter and Imperial Chemical Industries Ltd. *Brit.* 506,003, May 19, 1939. An ester of H_3PO_4 in which all the replaceable H atoms of the acid are replaced by equiv. radicals, other than Ph_2PO_4 and Me_2PO_4 , is incorporated as accelerator during or after the production of molding powders of the urea- CH_2O type. Stabilizers, e. g., NH_4 carbonate or carbamate, may be incorporated. In examples, the sirup obtained by heating urea with CH_2O at pH 7.5-8.0 is incorporated with paper pulp, dried and ground with Zn stearate, cyclohexanol stearate and (1) Et_3PO_4 , (2) Monastral Blue and Me_3EtPO_4 , and (3) Cd yellow and tritolyl phosphate. In *Brit.* 506,004, May 19, 1939, Me_3PO_4 is added as accelerator to urea- CH_2O molding powders during or after their production.

Mold materials. René F. J. Ricard. *Brit.* 506,770, June 5, 1939. Material for making or coating molds and cores for casting Ni-Al-steel, stainless steel, Mn steel, bronze or other metal comprise foundry sand, graphite and hardenable synthetic resin, e. g., such as described in *Brit.* 409,397 (C. A. 28, 6330), or alkyd resin, $\text{PhOH-CH}_2\text{O}$ resin or urea resin.

Polished molded products of casein composition. Daniel Kasen. U. S. 2,168,127, Aug. 1. A method of producing a polished molded casein article comprises subjecting uncured casein material having a suitable water content for molding in a cool mold to the action of a polishing soln. (such as a 5-10% NaOH soln. or concd. H_2SO_4) capable of acting upon the uncured casein material to polish its surface, then heating the polished moldable casein material to render it plastic and subjecting it to pressure within a cool mold to mold the article while preserving the polished surface, the method being suitable for the production of articles such as sheets or rods.

Molding articles such as buttons, etc., from powdered horn meal, casein, blood, glass or the like. Heinrich Skolaude. U. S. 2,169,665, Aug. 15. Various details of app. and operation.

Phenolic resin molding compositions. Wm. E. Flood and Geo. B. Howells (to Catalin Corp. of America). U. S. 2,168,981, Aug. 8. A method of producing molding compns. comprises treating more than 1.5 mols of CH_2O with 1 mol of phenol in the presence of an alk. catalyst, rendering the mass slightly acid, dehydrating until the mass would gel on long-continued heating, mixing therewith a substantial proportion of melted novolak resin resulting from the reaction of approx. equal mol. proportions of phenol and CH_2O in the presence of an acid catalyst, substantially neutralizing and permitting the