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cond. of insulating materials at temps. below 0°. NH_3-cooled brine served as the refrigerant; Cu-constantan couples measured the temps. Frozen moisture had little effect on the heat cond. of felt, since felt is repellent to H_2O, thereby preventing the formation of a continuous moist heat conductor. Moist cork granules were poor insulators, but when waterproofed the presence of moisture had little effect on their heat cond. The waterproofing of rice hulls had little effect on their insulating value. Cotton cloth and flannel were little affected by moisture. If cotton cloth is waterproofed, the threads will not absorb the moisture and the air spaces between the threads are filled with moisture and the heat cond. will be altered.
H. E. Messmore

Compositions for coating the inside of barrels. E. Lehmann. *Seifensieder-Ztg.* 65, 770a–771(1938).
J. W. Perry

Phosphates, their role in detergency. J. M. Gillet. 3 *Soap* 15, No. 1, 25–6, 69(1939).—Three types of phosphates find use in detergency, orthophosphates, pyrophosphates and metaphosphates. The first is a water softener. The pyrophosphates have a powerful peptizing action and a marked specific solvent action on certain gums and resins. The metaphosphates bind Ca and Mg in hard water in sol. form so that water can be made alk. and treated with soap so that no pptn. of any kind will occur.
E. Scherubel

Bactericidal (waxing and polishing) products for floors. Carl Lüdecke. *Seifensieder-Ztg.* 65, 667–8, 691–3, 711–12, 731–2, 751–2(1938).—This review is concerned principally with the prepn. of floor-wax compns. contg. antiseptics and the effectiveness of such compns. J. W. P.

Brake linings and other friction materials. H. E. Blank, Jr. *Automotive Ind.* 79, 346–53(1938).—The production of various types and methods of testing them 5 are described. Suitable machines for examg. automotive brake linings are shown. Graphs indicate the water and moisture reaction of ideal (theoretical) as well as excellent and poor (both com.) types of linings and also aging characteristics of these linings. The manufacturers of brake linings in the U. S. are listed. Leopold Scheflan

Domestic (German) raw materials used in conduit construction. Giese. *Papier-Fabr.* 36, Tech.-Wiss. Tl., 437–41(1938).—An illustrated descriptive article, dis- 6 cussing briefly advantages and disadvantages in the use of *asbestos, wood, paper, glass, porcelain, Al* and *synthetic resins* for piping. Louis E. Wise

Tanning of casein by aldehydes. P. F. Dyachenko and K. F. Shelpakova. *Colloid J.* (U. S. S. R.) 4, 337–45 (1938).—In NaOH solns. (p_H over 10.4) casein takes up 25 mg. of HCHO per g. The Na methylenecasecinate formed is pptd. by acetone and then swells to a gel in 7 water. If the alk. soln. is pptd. by acid or the reaction between HCHO and casein takes place in a neutral or acid soln., 1 g. of casein takes up 12–15 mg. of HCHO. Analogous compds. are obtained from casein and acetaldehyde and acrolein. These compds. contain the group NHCH-RNH, which links together casein mols. and dets. the stability of the product. J. J. Bikerman

Specification for compound; sweeping. *New York City Specification* 5-C3:38T Tentative, Jan. 25, 1938. Board 8 of Standardization, Dept. of Purchase, New York, N. Y.
L. Wilson Greene

Observations on statistics of old-house borer. K. Escherick. *Anz. Schädlingskunde* 14, 113–16(1938); cf. *C. A.* 33, 2417.—The accepted means of control of the old-house borer (*Hylotrupes bajulus* L.) are (1) hot air, (2) HCN fumigation and (3) treatment with liquid poisons. The general problem of control is reviewed. L. N. M.

Destruction of rats. H. W. Jack. *Agr. J. Fiji* 9, 9 2–4(1938).—Na_2HAsO_3 or $BaCO_3$ is generally used for rat poisons and some tests have been made of Zelio Paste, a proprietary prepn. contg. Tl sulfate. These poisons are used with baits and the Na_2HAsO_3 is most satisfactory. About 0.2 g. of the paste is necessary to kill a rat and when not fatal is claimed to make the rats sterile. Because of the danger little use is made of $Ca(CN)_2$ dust.
J. R. Adams

Phosphinic acids of aliphatic hydrocarbons, etc. [detergents and wetting agents] (U. S. pat. 2,137,792) 10. Esters of pine-wood pitch [in elec. insulating compns.] (U. S. pat. 2,138,193) 22. Amino alc. acrylates (U. S. pat. 2,138,031) 10.

Kausch, O.: Handbuch der künstlichen plastischen Massen. 2nd revised ed. Munich: J. F. Lehmanns 2 Verlag. 584 pp. M. 21, bound M. 22.50.

Lanza, A. J.: Silicosis and Asbestosis. New York: Oxford Univ. Press. 439 pp. $4.25.

Muntsch, Otto: Leitfaden der Pathologie und Therapie der Kampstofferkrankungen. 5th revised ed. Leipzig: G. Thieme. 149 pp. M. 10.80.

Natta, Giuliano: Appunti di chimica industriale dalle lezioni di G. N. svolte nell'anno accademico 1937–38. Turin: A. Viretto. 286 pp.

Römpp, Hermann: Chemische Fundgrube. Eine Auslese von 250 unbekannten chem. Patenten und Erfindung aus allen Ländern. Stuttgart: Franckh. 193 pp. M. 4.20.

Shell, John S.: Dental Materials. St. Louis, Mo.: C. V. Mosby Co. 413 pp. $4.50. Reviewed in *Metals & Alloys* 10, MA63(1939).

Stammer, Friedrich: Pflanzliches und tierisches Eiweiss. 4 Seine Herstellung aus Magermilch, Pflanzensamen, Tierblut. Berlin: Elsner Verlags. 239 pp. M. 7.50.

Chemists' and Druggists' Year Book and Directory for Scotland, 1939. Edited by J. B. McVitae. Glasgow: Munro & Co. 320 pp. 2s. 6d. Reviewed in *Pharm. J.* 142, 11(1939).

Kempe's Engineer's Year-Book of Formulae, Rules, Tables, Data and Memoranda for 1939. 45th annual issue revised under the direction of L. St. L. Pendred. 5 London: Morgan Bros., Ltd. 1 £ 11s. 6d.

Determining the amount of gas in liquid or plastic materials such as those used in well drilling. Sylvan Cromer and Irwin F. Bingham. U. S. 2,138,141, Nov. 29. A method (suitable for detg. if a drilling mud is "gas cut") includes placing a sufficient quantity of the mixt. in a closed chamber normally substantially to fill the same, subjecting 6 the mixt. to variations in vol.-pressure relationships and computing the percentage of compressible fluid in the chamber in accordance with known laws for the behavior of gaseous fluids, to obtain an indication of the presence of gaseous content in the mixt. and an indication of the amt. of gaseous fluid therein. App. is described.

Injection-molding device for thermoplastic materials such as cellulose acetate. Celluloid Corp. Brit. 492,-642, Sept. 23, 1938. 7

Mold materials. Josiah Robinson. Brit. 492,718, Sept. 26, 1938. Semipermanent molds and cores are made wholly or in part from aluminous hydraulic cement, contg. CaO 42, Al_2O_3 48 or over and SiO_2 less than 7%, mixed with graphite or other refractory form of C. The H_2O used should be insufficient to hydrate the cement wholly. The molds may be dried up to 600°.

Molded laminated products. Henry W. H. Warren and Reginald Newbound (to Canadian General Electric 8 Co. Ltd.). Can. 376,832, Oct. 4, 1938. Sheets of paper, fabric, wood veneer, etc., are coated at room temp. with liquid, solvent-free polymerizable styrene contg. an oxidizing agent, e. g., benzoyl peroxide, in amt. (0.01–0.5%) sufficient to ensure polymerization of the styrene, and a modifying agent, e. g., tritolyl phosphate, in amt. sufficient to make the styrene nonelastic and less inflammable, and the coated surfaces heated and pressed simultaneously to polymerize the styrene in place and bond the 9 surfaces together.

Phenol-formaldehyde molding powder. Ludwig Cserny (to Resinous Products & Chemical Co.). U. S. 2,137,-568, Nov. 22. A process of prepg. infusible, weldable molding powders comprises partially condensing a phenol with more than an equimol. proportion of CH_2O in an alk. medium, adding to the partial condensate a modifying agent which is one of the group consisting of amide-form-