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Processing citrus juices. Everette M. Burdick and James S. Allen (to Texsun Citrus Exchange). U.S. 2,563,705, Aug. 7, 1951. Scale-forming compds. are removed from citrus juice so that it may be concd. in an evaporator, in the production of citrus molasses, without depositing scale. The juice is made alk. with lime and heated with a submerged flame to ppt. pectin, acids, and other compds. which might form a scale. W. B. Esselen, Jr.

Thickening fruit composition. Albert C. Edgar and Orville J. Pickens. U.S. 2,563,996. The fruit is prepd. for processing. The thickening agents usually used in baking, plus sugar and spices, are well mixed, the juice is partially thickened, added to the fruit, and the fruit processed. The canned fruit is ready for immediate use in pastries, etc. The thickening agents employed are flour, gums, and starches. R. W. Elliott

Nut butter. Paul J. Mitchell, Jr. U.S. 2,562,630, July 31, 1951. The process consists of dispersing a stabilizer in nut butter at the time that it is ground, cooling rapidly, and storing at a temp. below the beta crystn. temp. Hydrogenated fats in concn. of 2-5% of the nut butter are employed as stabilizers. R. W. Elliott

Whipping composition from soybeans. Raymond S. Burnett and James K. Gunther (to Central Soya Co., Inc.). U.S. 2,489,173, Nov. 22, 1949. A stable, whipping agent of desirable odor, flavor, and color is prepd. by leaching solvent-extd. soybean flakes with water acidified to pH 4.0-5.0 to remove the bulk of sol. N-free ext., partly hydrolyzing the proteinaceous residue by the action of

pepsin at 100°F. and pH 2.5, adding about 0.2% of a peptizing salt, such as NaCl or a Na phosphate, to dissolve part of the unhydrolyzed protein, removing the insol. material by filtration at about pH 3.0, adjusting the pH of the filtrate to 4.5, and drying it. E. O. Whittier

Reversible gel from soybeans. Arthur C. Beckel and Paul A. Belter (to the United States of America, as represented by the Secy. of Agr.). U.S. 2,561,333, July 24, 1951. A reversible gel is prepd. by extg. an alc.-extd. proteinaceous soybean residue with water, adding to the ext. contg. 10-25% solids 30-50% alc. by vol. of the water present, heating the soln. to between 75° and boiling, and cooling to below 30°. Flavorings, seasonings, fruit, or nuts may be added as the basis of food products, including desserts. The alc. may be added in the form of spirituous liquors to produce solidified cognac or wine. The gel may be whipped either with or without the added flavorings or other materials. Cf. C.A. 44, 3177g. E. O. Whittier

Soluble coffee. Roger Gilmont. U.S. 2,563,233, Aug. 7, 1951. A process of producing sol. coffee consists of solvent-extg. ground roasted coffee, fractionating the solvent ext. by mol. distn. into sepd. aroma and fat constituents, decaffeinating the solvent-extd. grounds, H₂O-extg. the solvent-extd. decaffeinated grounds and recombining the sepd., molecularly distd. aroma constituent with the H₂O-extd. constituent. The fatty constituent, not required in the beverage powder, is a useful edible fat. A heavier residue fat, useful for soap or other purposes, is also obtained. W. B. Esselen, Jr.

13-CHEMICAL INDUSTRY AND MISCELLANEOUS INDUSTRIAL PRODUCTS

C. L. MANTELL

Taxes and the chemical industry. World War II tax amortization revived. Robert A. Irwin (Ring Bldg., Washington, D.C.). *Chem. Eng. News* 29, 2369-72, 2437 (1951). Impact of tax structures on industrial research. Fred Olsen and T. Gaynor Blake (Olin Inds., Inc., East Alton, Ill.). *Ibid.* 2724-8. E. J. C.

The effect of government regulations on commercial chemical development. Coördination with the government. John L. Burns. *Chem. Eng. News* 29, 1716-19 (1951). Chemicals and plastics. F. H. Carman (Manufg. Chemists' Assoc., Inc., Washington, D.C.). *Ibid.* 1719-21. Pattern for coöperation. Burton B. Biggs (Munitions Board, Washington, D.C.). *Ibid.* 1721-23. Labor, capital, and materials. Wesley Lindow (Irving Trust Co., New York, N.Y.). *Ibid.* 1816-19. NPA's Chemical Division. Joseph S. Bates (Natl. Production Authority, Washington, D.C.). *Ibid.* 1820-22. NPA's role in defense. Frank R. Creedon (Natl. Production Authority, Washington, D.C.). *Ibid.* 1822-3. Chemicals in foods. Isaac Fogg (Atlas Powder Co., Wilmington, Del.). *Ibid.* 1933-5. E. J. C.

World chemical trade. C. C. Concannon (Natl. Production Authority, Washington, D.C.). *Chem. Eng. News* 29, 3612-15 (1951). E. J. C.

Transportation of chemicals. Transportation by railroad. J. Robert Spraul (General Am. Transportation Corp., East Chicago, Ind.). *Chem. Eng. News* 29, 2028-32 (1951). Chemicals take to the road. C. Austin Sutherland (Natl. Tank Truck Carriers, Inc., Washington, D.C.). *Ibid.* 2460-3. About transportation by truck. **Seagoing chemicals.** Oliver E. Beutel (Dow Chem. Co., Freeport, Texas). *Ibid.* 3526-8. A discussion of the transportation of chemicals by ship. E. J. C.

Organization for development in a chemical company. Edward A. O'Neal. *Lectures, Monographs and Repts.* 1951, No. 2, 21. 12th Gluckstein memorial lecture. The organization of a chem. company is discussed and charts of typical administrative systems for a company and for the development departments are shown. H. L. Williams

The application of isotopes in chemical industry. Henry Seligman. *Chemistry & Industry* 1951, 724-7. E. H.

Research and development personnel in industrial laboratories. Myron J. Rand (Natl. Research Council, Washington, D.C.). *Chem. Eng. News* 29, 3604-8 (1951). E. J. C.

Accident trends in the chemical industry. S. M. MacCutcheon (Dow Chem. Co., Midland, Mich.). *Chem. Eng. News* 29, 3609-11 (1951). E. J. C.

Organizing for disaster control. Will H. Shearon, Jr. *Chem. Eng. News* 29, 3694-7 (1951).—Of interest to chem. industry. E. J. C.

Recent work on toxic war agents. BAL (British anti-lewisite). Z. M. Bacq (Univ. Liège, Belg.). *Actualités biochim.* 8, 1-48 (1947).—A review with 60 references. W. C. Tobie

Diseases of the lung resulting from occupational dusts other than silica. Kenneth M. A. Perry. *Thorax* 2, 91-120 (1947).—A review on the toxic and pathol. effects of dusts contg. Mn, Be, V, Os, Pt, As, Ba, Al, graphite, china clay, talc, sillimanite, mica, asbestos, and various org. materials. Many references. W. C. Tobie

Study of dusts in industrial atmospheres. VI. Photoelectric apparatus and apparatus for collection of large samples. P. F. Holt (Univ. Reading, Engl.). *Metallurgia* 44, 108-10 (1951); cf. C.A. 45, 9197i. H. describes the photoelec. methods of obtaining instantaneous readings which are a measure of the dustiness of the atm. App. for the collection of large samples for fundamental research purposes is also described. H. Stoertz

The problem of reduction of atmospheric pollution. I. Pollution by sulfur compounds. S. R. Craxford. *J. Roy. Sanit. Inst.* 71, 209-12 (1951).—No economic process has been developed for the removal of S compds. from flue gas. Rachel Brown

The control of air pollution in the chemical industry. Marcus Sittenfield. *Chem. Eng. Progress* 47, 481-3 (1951).—A review. C. L. Mantell

Eye irritation caused by Los Angeles smog. Richard D. Cadle and Paul L. Magill (Stanford Research Inst., Stanford, Calif.). *Arch. Ind. Hyg. Occupational Med.* 4, 74-84 (1951).—A mixt. contg. HNO₃, SO₂, SO₃, oil, particulate lampblack, O₃, NaCl, and gasoline was considered by human subjects to simulate natural smog in odor and irritating properties. While removal of all particulate components had little effect, removal of all gaseous components eliminated eye irritation of the artificial smog. C. L. C.

Industrial radium poisoning. Helmut Roth. *Deut. med. wochschr.* 76, 776-7 (1951).—Ra poisoning in contrast to many other industrial poisonings takes a course which lingers over years, is comparable in some respects to the latent phase of an infection, and occasionally causes general injury to the hardness of the organism. Care must be devoted to the avoidance of occupational injury from radioactive substances through intensive industrial hygiene protective measures such as sufficient ventilation of the work-