Alkali-Silico-Aluminate. A. H. Cowles, Jan. 5, 1915. U. S.

Pat. 1,123,693. Alkali-silico-aluminate and hydrochloric acid are produced by subjecting clay to the action of vapors of salt and water at a high temperature. A mixture of the salt and clay is fed into the furnace from the hopper 5, steam being introduced through the pipe 6. The suction of a fan, 3, draws the whirling charge up into the dust chamber 2 where it is electrified by

the passage of electricity between the highly charged points 10, whereby, according to the process set forth by Cottrell and others, the dust particles attract each other into small masses and fall back into the furnace, the hydrochloric acid passing over into the acid-condensing systems where it is condensed.

BRITISH PATENTS

By D. GEDDES ANDERSON

Chemical Engineer and Patent Chemist, Glasgow, Scotland

The following abstracts are taken from the latest published British specifications. The date at the end of the abstract is the date of acceptance.

Process for Converting Unsaturated Fatty Acids into Saturated Compounds. W. J. Mellersch-Jackson, Sept. 23, 1913. Brit. Pat. 21,477. A basic heavy metal salt of a fatty acid of high molecular weight is dissolved in, or intimately mixed with, the substance to be treated, and the material hydrogenated between 100 and 180° C. Basic oleates of nickel and copper are mentioned.—Feb. 2, 1915.

Improvements in the Manufacture of Tungsten. C. Gladitz, Oct. 23, 1913. Brit. Pat. 24,028. This invention relates to a new form of spool on which cold drawn tungsten wire is received, previous to undergoing heat treatment. By means of an auxiliary rotatable pin the periphery of the spool is increased for the winding operation and decreased for the heat treatment. In this way any tension in the wire, caused by the differences in coefficients of expansion of the metal of the spool, and of the wire, during the heat treatment, is eliminated.—Feb. 4, 1915.

Submarine Varnishes. G. Paterno and C. Mannelli. Dec. 22, 1913. Brit. Pat. 29,524. Fluorides or fluosilicates of aluminum, zinc, or lead are used as ingredients in antifouling compositions.—Feb. 18, 1915.

Apparatus for Distilling Liquids. Crossley, Wheeler and Smith, Jan. 10, 1914. Brit. Pat. 707. A new type of apparatus for distilling liquids such as oil or tar, which are liable to froth. A superheater, L, passes through the center of the still, and is heated by means of the burner M. The superheater breaks

up the froth and in addition is stated to increase the yield of distillate.—Feb. 10, 1915.

Preparation of Vegetable Textile Fibers for Bleaching. Jardine and Nelson, Jan. 12, 1914. Brit. Pat. 802. The process consists in treating the fibrous material in a digester with a solution of a magnesium or sodium bisulfite. The gases liberated

in the course of the cooking are continuously removed.—Feb. 12, 1915.

Coagulation of Rubber Latex. N. W. Barritt and A. Street, Feb. 12, 1914. Brit. Pat. 3,632. Rubber latex is subjected to partial evaporation under reduced pressure, and exposed to the action of hot, dry vapors of acetic acid and formalin. The exposure is effected on a revolving drum.—Feb. 12, 1915.

Accelerating the Vulcanization of Caoutchouc. S. J. Peachey, Feb. 19, 1914. Brit. Pat. 4,263. A small quantity of para-nitrosodimethylaniline, or of one of its homologues is added before vulcanization. It is stated that the isomeric nitrosamines produce no acceleration.—Feb. 18, 1915.

Nitrogen Compounds from Pulverized Carbides. T. Fujiyama, April 14, 1914. Brit. Pat. 9,259. Process does away with the application of external heat. A small quantity of pulverized carbide is ignited in an unheated chamber in presence of air. When the temperature has risen sufficiently nitrogen is introduced, and fresh carbide fed in, in such a manner that a heat insulating layer of the carbide is formed over the carbide undergoing reaction.—Feb. 11, 1915.

Treatment of Iron or Steel for the Prevention of Rust. Rudge-Whitworth, Ltd. and H. L. Heathcote, April 22, 1914. Brit. Pat. 9,926. Relates to iron and steel articles already coated with rust-resisting phosphates of iron. The phosphate coating is treated with linseed oil and stoved, or with celluloid varnish and subsequent stoving.—Feb. 18, 1915.

Rubber Composition for Outer Covers of Pneumatic Tires. C. Pacchetti, June 6, 1914. Brit. Pat. 13,779. Rubber when in a plastic state is mixed with lengths of horse hair or hog's hair and the mixture subsequently vulcanized. Said to give non-skid properties.—Feb. 18, 1915.

New Substituted Ureas. Fabriques De Produits De Chimie Organique De Laire, July 23, 1914. Brit. Pat. 17,501. Relates to tetra-substituted ureas of the general form

R and R₂ represent alkyl radicles; R₁ and R₃, aryl radicles.

The chloride of an aryl-alkyl urea is first formed and then caused to react with an aromatic base having different radicles from those of the aryl-alkyl urea.

They are viscous liquids or solids of low melting point, and claim is made for their use in stabilizing nitro-derivatives of organic compounds.—Feb. 11, 1915.

Impregnating Liquids with Carbonic Acid or Other Gases. A. A. Pindstoffe, Sept. 14, 1914. Brit. Pat. 19,769. The gas and liquid passing through the pipes f and d, respectively, are forced up the impregnating chamber a. The gas-charged liquid flows through the pipe i to the bottling chamber, and the superfluous carbonic acid and expelled air flow through j into the liquid reservoir b and fill the space caused by the displaced liquid: m is a supply reservoir connected with an air-discharge controller, q. The partitions of the impregnating chamber are perforated and are shown in plan in Fig. 2.—Feb. 11, 1915.