

Report on Foreign and American Patents relating to Chemistry.

Foreign Patents.

Condensed from R. BIEDERMANN'S Report to the German Chemical Society, by H. ENDEMANN.

HENRY BRUNNER, Appleton, Wisnes: *Innovations regarding the manufacture of alkali.* (Engl. P., No. 3166, Aug. 10, 1878.)—The inventor proposes, in order to prevent the formation of cyanides, to heat the mixture of sulphate of soda and lime, with from 25 to 75 per cent. of the quantity of carbon required for the complete reduction, until the mass melts, and to add the rest of the carbon at the end of the operation.

AUG. BEHNE, Harburg: (Germ. P., No. 6046, Dec. 3, 1878.)—*Plans for the concentration of brine*, combined with drying apparatus, and mechanical arrangement to remove the salt crystals from the solution.

CHARLES DE LA ROCHE, Paris: *Method to remove calcium carbonate from phosphorite.* (Germ. P., No. 6615, Jan. 19, 1879.)—The phosphorite is calcined in a shaft furnace, while steam is injected. The caustic lime thus formed is extracted with dilute acids. The method is used for the manufacture of high grade superphosphates.

WILL. THORNE, Montpellier: *Lead-lined sheet copper and iron.* (Germ. P., No. 5966, Oct. 13, 1878.)—The lead is applied to the previously tinned sheet iron or copper. A lead-tin alloy, which is formed, thoroughly unites the outer layer of lead with the other metal.

GEORGE BOWER and ALB. SPENCER BOWER, St. Neots: *Method to protect iron or steel against rust.* (Engl. P., No. 1280, Apl. 1, 1878; Germ. P., No. 5339, Oct. 8, 1878.)—The inventors use magnetic oxide as a protector. In order to produce this, carbon dioxide is allowed to act on the metallic surface of these goods, at high temperature; or carbon monoxide on the surface of the goods, previously oxidized to sesquioxide.

S. GILCHRIST THOMAS, Battersca: *Liquid glass for the production of a mass used for lining stoves.* (Germ. P., No. 6080, Mar. 26, 1878; compare Germ. P., No. 5869.)—A mixture of pure ground quick-lime, with from 5 to 10 per cent. of liquid glass, 1.5 spéc. gravity; or one consisting of 80 to 85 quick-lime, 5 liquid glass and 10 parts clay or blast-furnace slag, are pressed into moulds.

JOHN COWDERY MARTIN, Richmond: *Drying white lead.* (Engl. P., No. 2998, July 29, 1878.)

CARL KURTZ, Cologne: *Method and apparatus for the manufacture of nitro-glycerine.* (Germ. P., No. 6208, Dec. 24, 1878.)—The glycerine is pressed from below into the acid mixture, which it enters in minute currents. To complete the intimate mixture, currents of air are blown into the fluid. The ready formed nitro-glycerine is continually drawn from the surface, and washed by allowing it to pass through a series of water vats, where a more thorough mixture, for the purpose of washing, is likewise obtained by blowing air into the

fluid. The washed nitro-glycerine is likewise continually drawn from the bottom of the last vat.

ELISÉE COLTE : *Explosives*. (Engl. P., No. 3119, Aug. 7, 1878).—The raw material for the preparation of explosives by this patent, is rye straw. Treatment with soda removes the fat, and produces disintegration of the fibres. These are then mechanically reduced to a pulp, washed, and formed into paper, which is cut into small pieces of 3 square millimeters surface. These are converted into nitro-cellulose. The nitro-cellulose pieces thus produced, are soaked in solutions of nitre containing dextrine or charcoal powder, in varying proportions, depending on the kind of explosive sought to be manufactured. Moist nitro-cellulose may be ground with 2 per cent. of soda, and then be mixed with 50 per cent. of nitro-glycerine; this mixture is called "palein;" it is said to possess superior stability, and to be an exceedingly energetic explosive.

HOYER and STADELMANN, Dresden : *Carburetting illuminating gas*. (Germ. P., No. 4723, Aug. 2, 1878).—This is sought to be reached by means of benzine.

PRZYBRAM and Co., Vienna : *Method for the manufacture of violet and blue dyestuffs from mono and bisazo, and mono and binitro anthrachinone respectively*. (Germ. P., No. 6926, July 2, 1878).—The substances named are heated with Nordhausen oil of vitriol, containing 40 per cent. anhydride. Thus dyestuffs and, on continued treatment, their sulfo-acids are formed.

G. H. E. BERING, Bromberg : (Germ. P., No. 6202, Oct. 26, 1878).—*Varnish for paperhangings*. Casein dissolved in sodium tungstate.

J. J. HOLTZ, Berlin : *Phenolith*. (Germ. P., No. 6498, Aug. 17, 1878).—Mixture of phenole with boric acid and various salts, to be used as an antiseptic or preservative for meat, hides, &c.

H. A. CLARK, West Cowes : *Composition for covering the bottom of ships*. (Engl. P., No. 2976, July 26, 1878).—This consists of 1 blue vitriol, 1 white lead, 1 green verditer, 10 rosin, $\frac{1}{2}$ boiled oil, 1 rouge, 1 graphite, $\frac{1}{2}$ turpentine, 1 Swedish tar, 1 copper blue.

JOHN SCHWARTZ, Stepney : (Engl. P., No. 3163, Aug. 10, 1878).—Proposes to remove potash salts from molasses, by converting them into sulphates (?)

American Patents.

Condensed from the Official Gazette of the U. S. Patent Office, by ARNO BEHR.

September 2, 1879.

219,097.—*Alloys for jewelry*. WM. WHEELER HUBBELL.

66.7% gold, 10% silver, 23.3% copper.

219,168.—*Process for preserving meat*. AZEL S. LYMAN.

The meat is placed in a closed vessel, and cooked with steam under high pressure. In slowly reducing the pressure, by letting the steam escape, volatile substances are carried away which give to the meat an objectionable taste and smell. The meat is, after this treatment, enclosed in tight packages.