

Reports on American and Foreign Patents Relating to Chemistry.

American Patents.

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

February 6th, 1880.

226,151.—*Distillation of oils.* WILLIAM ATWOOD.

The patent is for a special construction of the distilling apparatus.

226,153.—*Petroleum distillate for lubricating purposes.* WILLIAM ATWOOD.

Claims a fraction of the oil having a specific gravity of 20–16° Bé, and possessing lubricating qualities.

226,187.—*Apparatus for testing oil by electricity.* FRANCIS S. PEASE.

226,259.—*Vulcanisation of water-proof fabrics.* WILLIAM ABBOTT.

Claims the vulcanisation of fabrics containing an external or an intermediate layer of india-rubber, by submitting them to the action of chloride of sulphur.

Re-issue 9,144.—*Dye-stuff or coloring matter.* HEINRICH CARO.

Re-issue of patent 204,799.—*For "fast red."*

Consisting of the product made from diazonaphthalene-sulpho acid and beta-naphthol.

April 13th, 1880.

226,397.—*Process and apparatus for manufacturing gas.* MAHLON S. FROST.

A heating gas is produced first, by partial combustion in a generation of some carbonaceous material. This gas is mixed with air and passed through a second bed of coal, in a second generator, heating this coal to incandescence during its passage. When the coal is sufficiently hot, steam is passed through it, and water gas generated. This is finally carburetted in the first generator, for use as an illuminating gas.

226,398.—*Process of manufacturing glucose.* CLINTON FURBISH.

Claims the separation of the hull and germ from the starchy portion of the corn, and the treatment of this starchy portion, with water and steam under pressure, preparatory to its conversion into glucose.

226,400.—*Manufacture of iron.* ROBERT H. HAMILTON and WILLIAM GRIFFITH.

Into the molten metal is mixed a certain proportion of muriate of ammonia, or a mixture of muriate of ammonia, black oxide of manganese, sal-soda, common salt and nitrate of sodium.

226,484.—*Process of manufacturing glucose.* JOHN F. WOLFF.

The inventor proposes to force currents of air through the liquid during the ordinary process of the conversion of starch into glucose, by means of sulphuric acid, and claims to obtain a larger yield and a lighter color of the product.

- 226,447. — *Softening, plumping and depilating hides and skins.* JAMES FOLEY.

A solution of barium sulphide is employed.

- 226,467. — *Preservation of butter.* THOMAS F. WILKINS.

Uses metaphosphoric acid mixed with the butter.

- 226,506. — *Process of extracting the fibres from textile plants.* PAUL A. and M. A. FAVIER.

This process seems to consist essentially in a treatment of the plants, with steam under pressure.

- 226,547. — *Composition of matter.* JOHN L. POPE.

A mass consisting of pulverized cork, mixed with a suitable binder and with any substance susceptible to take a polish, the whole solidified by pressure.

- 226,572. — *Manufacture of hard rubber or vulcanite.* HEINRICH OTTO and MAX TRAUN.

Claim : the use of glass in the manufacture of vulcanite.

April 20, 1880.

- 226,583. — *Plastic composition of matter for the manufacture of jewelry and fancy articles.* ISAAC B. ABRAHAMS.

A compound consisting of glue, rosin and starch.

- 226,616. — *Anode.* JACOB KLEINHANS.

Makes nickel anodes with hook-shaped ends, whereby two or more may be readily united or detached.

- 226,632. — *Manufacture of nitrogen gas.* THOMAS B. STILLMAN.

Nitrogen gas is deprived of the last traces of oxygen by passing it over melted sodium, after it has been thoroughly dried by phosphoric anhydride or some other strong absorbent for water.

- 226,738. — *Composition for filling teeth.* THOMAS FLETCHER.

Consists of a solution of phosphate of tin in phosphoric acid, combined with lime, silica and alumina fused together, and reduced to powder.

- 226,758. — *Composition for white-wash.* ARCHIBALD H. KERR.

Lime, whiting, plaster of paris, glue, carbonate of soda, borax and sulphate of soda.

- 226,839. — *Apparatus for testing lubricating oils.* CHARLES N. WAITE.

April 27, 1880.

- 226,844. — *Substitute for hard rubber.* GUSTAVUS A. FUDICKAR.

Ebony wood saturated with oil at a gradually augmenting temperature, so as to render it flexible.

- 226,867. — *Process of manufacturing nitro-glycerine.* FREDERICK MANN.

Nitro-glycerine is separated from its acid mother liquid, often cooling the mixture, and causing the nitro-glycerine to crystallize.

226,920.—*Compound soap.* EDWARD LYON.

Water, sixty gallons; Babbitt's best soap, twenty cakes; aqua ammonia fortior, half a pint; sal-soda, ten pounds; salt, one gill; hypo-sulphite of soda, one pound.

226,933.—*Preparation for coating ingot moulds.* AUGUSTUS L. SIMONDI.

100 parts of tallow and 27 of lamp black.

226,965.—*Extracting gold, etc., from ores.* JOHN F. BOYNTON.

Consists in the treatment of the ore with chlorine gas, in an apparatus constructed for that purpose.

227,018.—*Process and apparatus for distilling alcohol.* GEORGE W. KIDD.

Distillation under a partial vacuum and at a low temperature.

227,027.—*Apparatus for the manufacture of nitric acid.* PAUL MARCELIN.

Brief: May use stem-valves in place of hand-holes.

227,032.—*Manufacture of bicarbonate of soda.* WILLIAM T. MENZIES.

In a solution of commercial carbonate of soda, the caustic soda is neutralized by carbonic acid, then the sulphur compounds are oxidized with chloride of lime, and, finally, bicarbonate of soda is precipitated from the clear solution by carbonic acid.

227,076.—*Galvanic Battery.* FERDINANDO TOMMASI.

227,080.—*Roofing and paving material.* CYRUS M. WARREN.

Coal-tar residuum is fused with wax tailings, candle-tar, fat or fat-oil, and a compound of natural bitumen, or asphaltum, with petroleum residuum.

Foreign Patents.

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

by OTTO H. KRAUSE.

O. BRAUN, Berlin: *Apparatus for cooling and warming gases mixed with vapors of liquids.* (Germ. P., No. 8585, July 19, 1879.)—A square tank with suitable openings for the admission of the vapors, &c., and for the exit of the condensed liquid and uncondensed gases. A second vessel, from the bottom of which wide cooling pipes, closed at their lower ends, project into the tank, forms the cover. A third vessel, with open tubes passing into and nearly reaching the bottom of the cooling pipes, is placed above it. The cooling liquid flows from the third vessel down through the tubes into the cooling pipes, and rises up in them into the second vessel, whence it is drawn off.

KARL MOELLER, Kupferhammer, near Brackwede: *Apparatus for filtering gases and vapors.* (Germ. P., No. 8806, June 17, 1879.)—The apparatus contains several independent, vertical, horizontal or inclined chambers. The gases to be filtered are made to pass through fine sieves, or through filters of cotton, mineral wool, or asbestos, which retain the suspended particles of liquid or dust.