

On the Action of Phosphorus Pentachloride and Phosphorus Oxychloride on Cinchonine Chloride, W. KOENIGS (13, 285).—Phosphorus pentachloride and phosphorus oxychloride do not react singly with cinchonine, but a mixture of both does. A new derivative of cinchonine, containing chlorine, is produced. Its formula is either $C_{19}H_{21}ClN_2$ or $C_{19}H_{19}ClN_2$.

On the Production of Anthranilic Acid from Orthonitrotoluole, PH. GREIFF (13, 288).—A substance of the empirical formula of a bibromnitrotoluole, had been prepared by Wachendorff from orthonitrotoluole and bromine. But, being soluble in alkalies, its constitution might be expected to be different from that of bodies of the class mentioned. The author finds that it is, in fact, bibromanthranilic acid, and calls attention to the remarkable reaction by which oxygen and hydrogen, contained in the nitro and methyl groups, change their places within the molecule during the reaction with bromine. $C_6H_4Br_2.NO_2.CH_3$, bibromnitrotoluole. $C_6H_2Br_2.NH_2.CO_2H$, bibromanthranilic acid.

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.

May 4, 1880.

227,168.—*Insulating compound for telegraph wires.* WILLIAM W. JACQUES.
Bees-wax and Venice turpentine.

227,268.—*Coating iron surfaces.* JOSEPH KINTZ.

Claim: The process for bronzing iron surfaces, which consists in cleaning and buffing the iron surfaces, then electroplating with copper, then dipping in acid solution, then again buffing, then boiling in a salt-of-tin solution, and then finishing by subjecting the article to heat, until the copper and spelter coatings are fused into bronze.

May 11, 1880.

227,352.—*Composition for insulating telegraph wires, coating metals, covering roofs, and for other purposes.* EDGAR EVERHART.

Consists of resin or lac, asphalt, coal-tar or pitch, powdered charcoal and infusorial earth.

227,395.—*Triturating and mixing apparatus.* JAS. TREGURTHA.

227,396.—*Dissolving apparatus.* JAS. TREGURTHA.

227,448.—*Galvanic Battery.* ROBERT SCHLUMBERGER.

227,463. *Preparation of paper stock from colored rags.* GEORGE F. WILSON and PHILIP O'REILLY.

Claim 4 : The process of preparing colored rags for paper pulp, by boiling the stock with alkali to remove oil and grease, washing, treating it with a salt of manganese and then with chloride of lime, washing and subjecting it to the action of oxalic acid.

227,464.—*Manufacture of wood pulp for paper.* GEORGE F. WILSON and PHILIP O'REILLY.

Claim 3 : The process of making pulp from the Yucca or other wood, by inducing fermentation in the pores of the wood, washing, treating with alkali, washing and bleaching.

227,470.—*Manufacture of artificial indigo.* ADOLF BAEYER.

This patent contains the latest discoveries of A. Baeyer with regard to the artificial production of indigo. He found that several derivatives of orthonitrocinnamic acid can be, by smooth reactions, transformed into indigo. Orthonitrobromhydrocinnamic acid, boiled with alcoholic potassa, yields orthonitrophenylpropionic acid, $C_6H_4NO_2.C\equiv C-CO_2H$. A solution of the latter, in an excess of alkali, boiled with a reducing agent like glucose, or milk sugar, yields indigo in a crystalline form.

Another derivative of orthonitrocinnamic acid, orthonitrophenyl oxacrylic acid, can be converted into indigo blue by the mere action of heat.

227,480.—*Method of preparing absorbent cotton.* LUCINDA A. BUCKNAM.

This method consists in a preparatory treatment of the cotton with a solution of chloride of lime and a solution of caustic soda, for its preparation as an absorbent for surgical purposes.

227,559.—*Safety paper and method of preparing the same.* JAMES H. McMAHON.

Treating the paper with an alcoholic solution of tannin.

227,561.—*Manufacture of bicarbonate of soda.* WILLIAM T. MENZIES.

A process for the purification from, and removal of, the ammonia and organic coloring matter existing in bicarbonate of soda manufactured by the ammonia process, which consists in passing a current of carbonic acid through dry bicarbonate of soda while under heat and pressure.

227,564.—*Apparatus for manufacturing vinegar.* VICTOR MICHAELIS.

227,588.—*Manufacture of anthracene.* FRITZ SALATHÉ.

The patent is based on the fact that petroleum hydrocarbons can be converted into aromatic hydrocarbons, including anthracene, by heat. According to the patent, petroleum is passed through iron retorts filled with charcoal and heated to a dull red. The product is called anthracitic tar, and is claimed to be free from acid matters.

227,601.—*Explosive compound.* ROBERT W. WARREN.

One part of nitro-cellulose is dissolved in ten parts nitro-glycerine in the cold. To this mixture pulverized nitro-cellulose is added until the mass is brought to the consistency of a dry powder. This is further mixed with gunpowder.

May 18, 1880.

227,629.—*Method of producing multiple copies of writings.* EMIL HOLTZ-MANN.

This patent is for the well known hektograph. The method was patented in Germany, April 30, 1878. Claim 1 describes the process as consisting in causing a surface of glue or gelatine, rendered uniformly moist and absorbent by soaking it in water, to take up the colors from an original drawing or writing, so as to form the desired negative impression, and pressing the damp paper, on which the impression is to be reproduced in a positive form, upon the gelatine thus prepared.

227,676.—*Manufacture of paper pulp from straw.* CHARLES O. and HENRY A. CHAPIN.

The straw is roasted previous to chemical or mechanical treatment.

227,698.—*Apparatus for collecting natural mineral water and charging liquids with natural carbonic acid gas.* ALBERT K. McMURRAY.

227,801.—*Galvanic battery.* WILLIAM V. LOCKWOOD.

The porous cell contains peroxide of lead and sulphuric acid.

227,849.—*Anti-friction composition for bearings.* JOHN SMALLEY.

Consists of graphite and shellac.

Reissue 9,203.—*Chlorinating ores.* J. HOWELL MEARS.

The ore is treated with chlorine gas under pressure.

May 25, 1880.

227,902.—*Extracting copper from ores.* THOMAS S. HUNT and JAMES DOUGLAS.

The solution of cupric chloride, which is extracted from the ore, is treated with sulphurous acid. Cuprous chloride is precipitated, and the remaining acid solution, containing hydrochloric and sulphuric acids, is utilized in the further extraction of the ore.

227,945.—*Process and apparatus for reducing asphaltum to a liquid.* DAVIS W. BAILEY.

The process consists in melting together crude or refined asphaltum with the residuum of petroleum, or with wax tailings.

227,963.—*Depositing gold from its solutions.*—WILLIAM MORRIS DAVIS.

Solutions of gold filtered through charcoal deposit it in the metallic state.

228,004.—*Process for recovering precious metals from liquids in which they are suspended.* JOHN TUNBRIDGE.

Claim: The process of separating metals from jewelers' waste, mining waters, etc., by treating said waters with soapy solutions and subsequent filtration.

228,005.—*Insulating compound for telegraph wires.* JOHN VAN WINKLE and FELIX DONELLY.

Consists of coal-tar, pitch, tallow and potash.

228,016.—*Compound for preserving meat.* FILIPPO ARTIMINI.

A compound called "boric tartrate," the composition of which is not given in the claim.

228,028.—*Coating the interior of vessels for holding oils.* DANIEL F. BOWKER.

After two coatings with a mixture consisting of glue, molasses, alum, glycerine, potter's clay and water, a solution of bichromate of potash is applied to the surface of the coatings.

228,029.—*Asphalt varnish.* JULIUS BRACE.

A solution of asphaltum in naphtha and some heavier part of petroleum.

228,140.—*Process of obtaining gold from its ores.* ANSON C. TICHENOR.

Claim 2: The process of treating gold ores for the subsequent recovery of the precious metals, said process consisting in subjecting the the said ores to the action of a chloride of gold.

Foreign Patents.

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

by OTTO H. KRAUSE.

H. BUESSING, Braunschweig: *Precipitation of white lead from solutions of basic acetate of lead.* (Germ. P., No. 4505, June 16, 1878.)—Carbonic acid is admitted to a vessel having a conical bottom fitted with pipes for heating the lead solution it contains. A shaft, to the arms of which blades of wicker work are attached, stirs the liquid, and an endless screw conveys the precipitated white lead to the discharge opening.

RAPHAEL MELDOLA, Hackney Wick: *Coloring matters from the sulphonic acids of phenols and from diazosulphonic acids derived from amines.* (Engl. P., No. 1864, May 10, 1879.)—The diazosulphonic acids of benzole, naphthalene, &c., are made to react on phenol-, naphthole-, resorcine-, etc., sulphonic acids. Various shades of orange and scarlet dyes are formed. Orange, for instance, by dissolving 10 parts sulphanilic acid in 20 times its weight of water, and treating with 4 parts sodium nitrite and hydrochloric acid. The diazobenzo-sulphonic acid produced, is poured into a solution of 19 parts of sodium β -naphtholedisulphonate in 8 times its weight of water. After neutralizing with ammonia, the coloring matter is precipitated with sodium chloride. Scarlet is prepared in a similar manner from xylidinesulphonic acid and β -naphtholesulphonic acid.