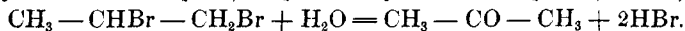
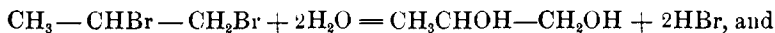


gave about 76 per cent. of the theoretical quantity of *benzyl alcohol*, and other products which were not examined.

Haloid compounds of the olefines. Preparation of *ethyleneglycol*. 60.5 per cent. of the theoretical quantity of ethyleneglycol was obtained by heating ethylenebromide for 130 hours, with 26 parts of water in champagne bottles, in the water bath.

Propyleneglycol. By boiling propylenebromide with an excess of water, *propyleneglycol* (b. pt., 186°) and *acetone* were obtained. The reactions are represented in the equations:



Amylene bromide (from commercial amylic alcohol), after 30 hours boiling with an excess of water, had been completely decomposed. The only product obtained (b. pt., 94–96°), appears to be amylenoxide.

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.

January 6, 1880.

223,212.—*Galvanic battery.* ROBERT C. ANDERSON.

223,265.—*Electro-plating with nickel.* JOSEPH WHARTON.

Brief: This improvement consists in the substitution for the nickel anodes now in use, which are usually of the cast metal, rarely pure and often alloyed, of an anode of wrought or rolled malleable nickel.

223,363.—*Manufacture of printing ink.* JULIUS KIRCHER.

Suitable for cancelling ink and postal stamps. For method of using and composition, the specification must be seen.

January 13, 1880.

223,442.—*Preparing a sizing material used by paper-makers.* ROBT A. FISHER.

A solution of sulphate of alumina is treated with oxide of zinc.

223,443.—*Manufacture of a white compound for paper-makers' use.* ROBT A. FISHER.

The ferric sulphate contained in impure sulphate of alumina is first reduced to ferrous sulphate, and then the solution treated with oxide of zinc, as in the preceding patent.

223,459.—*Sizing for paper.* GEORGE VINING.

The sizing consists of caseine, or a mixture of caseine and borax.

223,463.—*Method of preparing an aqueous bleaching solution of soda or potassa.* PETER T. AUSTEN.

Claim: A bleaching solution composed of silicates of sodium or potassium, barium peroxide, and the hydrates of sodium, potassium or ammonium.

223,558.—*Apparatus for aging liquors.* JOSEPH C. VETTER.

Effects the aging by means of galvanic currents through the liquid, for which purpose a special apparatus is constructed.

223,571.—*Manufacture of anhydrous sulphuric acid.* JOHANN A. W. WOLTERS.

Sulphuric anhydride is prepared by heating a mixture of pyrosulphate of sodium and sulphate of magnesium. The residue is a double salt of sulphate of sodium and magnesium, which can be separated into its component parts by crystallization and used again in the process.

223,602.—*Treatment of hops for preservation.* LOUIS NAUMANN and CARL POHL.

The hops are moistened with alcohol and compressed into suitable receptacles.

223,608.—*Apparatus for drying and deodorizing liquid manures.* ADALBERT BARON VON PODEWILS.

January 20, 1880.

223,735.—*Manufacture of artificial stone or marble.* WM. H. HOOPES.

223,738.—*Process of tempering steel.* JOSEPH C. JENKINS.

Application of yellow prussiate of potassium, nitrate of potash and cyanide of potassium.

223,747.—*Apparatus for refining camphor.* WM. V. MCKENZIE.

223,762.—*Preparation of gelatine for vitriifiable prints.* EMILE SALVY.

January 27, 1880.

223,814.—*Preparing paper and other fabrics and materials for wrapping silver and other metals to prevent them from tarnishing.* JOHN C. PENNINGTON.

The paper is impregnated with a solution of oxide of zinc or lead, in caustic soda potassa or ammonia.

223,815.—*Manufacture of cement and artificial stone.* FREDERICK RANSOME.

223,860.—*Electro-deposition of nickel.* JOSEPH H. POTTS.

Claims a solution for nickel-plating, composed of acid solution of nickel sulphate to which carbonate of lime has been added.

223,880.—*Composition for elastic rollers.* JAMES BURBRIDGE, ROBERT C THORPE and THOMAS OAKLEY.

Consists of "sulphurized oil," fibrous material and gum, resin or pitch.

223,913.—*Extracting metals from ores.* OTTO KAR HOFMANN.

A process of successive treatment with chlorine and washing, for the particulars of which, the specifications must be seen.

Foreign Patents.

Condensed from R. BIEDERMANN'S Report to the German Chemical Society
by OTTO H. KRAUSE.

F. W. DUPRÉ and C. N. HAKE, Stassfurt: *Manufacture of potassium sulphate from schoenite.* (Germ. P., No. 8021, Jan. 21, 1879).—100 parts of finely ground schoenite ($K_2SO_4 \cdot MgSO_4 \cdot 6H_2O$), are mixed, dry, with 14 parts of slaked or unslaked lime. The water of crystallization of the schoenite suffices for the decomposition of the mixture into calcium sulphate, potassium sulphate and magnesia. The plastic mass is either calcined or allowed to remain at rest for several days, whereupon it is ready for lixiviation.

G. LOEWIG, Dresden, and F. LOEWIG, Goldschmieden: *Process of purifying alumina which has been used for clarifying liquids, &c.* (Germ. P., No. 6713, Oct. 13, 1878).—Spent colloid alumina is mixed, in equivalent proportions, with lime, evaporated, and heated to destroy organic matter. The calcium aluminate is re-dissolved, and the alumina precipitated. Or, the spent alumina is evaporated and heated with hydrochloric acid or magnesium chloride, to destroy organic matter. The aluminum chloride or magnesium aluminate formed, are treated in known manner to obtain aluminum hydrate.

AD. HERRAN, Paris, and A. CHAUDÉ, Terres: *Method of obtaining coloring matters by the action of nitrobenzole or nitrotoluole upon mixtures of aniline or its homologues and metallic double chlorides.* (Germ. P., No. 7991, Dec. 28, 1878).—The inventors employ, among others, the following double chlorides: Aluminium-magnesium chloride, aluminium-zinc chloride, aluminium-ferrous chloride, ferro-magnesium chloride, ferri-zinc chloride.

A red, and a grey, coloring matter may be obtained by heating 2 parts of toluidine with $1-1\frac{1}{2}$ parts double chloride, and addition of $1\frac{1}{2}$ parts nitrobenzole, or $1\frac{1}{2}$ parts nitrotoluole, until the mass becomes viscid. The red is soluble in boiling water, and the grey coloring matter is rendered soluble in water after conversion into the sulpho-acid.

A blue coloring matter is obtained when a mixture of 2 parts aniline and $1-1\frac{1}{2}$ parts aluminium-zinc chloride, is heated to near the boiling point of aniline, $1-1\frac{1}{2}$ parts of nitrobenzole added, and the heating continued for several hours. The mass is dissolved in concentrated sulphuric acid, the coloring matter precipitated by water, and dissolved in alkali.

MEISTER, LUCIUS and BRUENING, Hoechst: *Method of preparing coloring matters by the action of chlorinated quinones upon secondary and tertiary aromatic amines.* (Germ. P., No. 8251, June 24, 1879).—I. Violet dyes are obtained by allowing