

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 3, 1880.

224,014.—*Process of manufacturing fine salt.* THOMAS HIGGIN.

A mechanical process of disintegrating the coarse or lump salt, followed by sifting.

224,036.—*Process of manufacturing buttons and other articles from fibrous material and powdered hoof.* WILLIAM F. NILES.

224,101.—*Process for the manufacture of sulphate of soda.* WILLIAM T. MENZIES.

Brief: This manufacture is based upon improvements in the treatment of salt cake and nitre cake, so as to obtain a pure sodium sulphate free from acidity, and not containing an iron salt.

224,170.—*Manufacturing paper pulp from pine leaves.* CHARLES FULTON.

The claim gives no idea of the process.

224,186.—*Manufacture of beer.* GEORGE C. HOLDERER.

The first and second fermentations are effected at a temperature of from 41° to 68° F. After the beer has lost its new taste, the temperature is reduced to about 32° F., and the beer charged with carbonic acid.

224,240.—*Manufacture of carbonates and bicarbonates.* ALBERT STEARNS.

The absorption of carbonic acid by solid substances is facilitated by moulding these substances into blocks, which are perforated by a number of holes.

224,246.—*Production of cold in ice machines.* C. M. TESSIÉ DU MOTAY and AUGUSTE T. ROSSI.

The inventors have found that ether dissolves a large proportion of sulphurous acid gas at ordinary temperature and pressure. They use the resulting liquid in ice machines. In the working of the machine, the vapors of sulphurous acid and ether pass over into the condenser and cooler together, and are easily condensed under formation of the original liquid, a slight pressure only being required, owing to the chemical affinity between the two substances.

224,263.—*Electro-deposition of nickel.* JOSEPH YATES.

Claims the use of a solution of acetate of nickel.

February 10, 1880.

224,295, 224,296 and 224,297.—*Water-proofing and moth- and water-proofing compounds.* DANIEL M. LAMB.

A solution of paraffine in naphtha, or of caoutchuc in naphtha, or a mixture of the two solutions, is treated with hydrochloric acid gas. After the treatment, air is blown through the solution and the yet remaining acid removed by washing with water and alkali.

224,328.—*Galvanic battery cell.* GEORGE A. CONVERSE.

224,343.—*Galvanic battery.* WASHBURN MAYNARD.

Claim: A galvanic battery composed of a zinc positive, and a platinum plate surrounded by a mass of retort carbon in grains, these elements constituting a complete battery, for use with a suitable exciting liquid.

224,404.—*Galvanic battery.* JOHN DOYLE.

224,419.—*Process for manufacturing alcoholic spirits.* JOHN R. GLADNEY.

To the mash is added "California beer seed for generating a rapid vinous fermentation."

224,426.—*Manufacture of hydrogen sulphide.* W. E. A. HARTMANN.

Claims the production of sulphuretted hydrogen for industrial purposes, by bringing together at a red heat, in a suitable apparatus, sulphurous acid, "carbon in a liquid form," and steam.

February 17, 1880.

224,549.—*Process of making white pigments from lead sulphurets.* GEORGE T. LEWIS.

Passes powdered galena, intimately mixed with air, through retorts heated externally. The resulting fumes are collected in suitable apparatus.

224,611.—*Apparatus for effecting interchange of temperatures of fluids.* STANISLAS H. ROUART.

224,649.—*Composition for aiding the ignition of coal, etc.* JOHN M. CHILD.

A compound of ammonium sulphate, soda ash, saltpetre and ammonium nitrate.

224,660.—*Artificial stone.* T. PHELPS DAVIS.

Re-issue 9,075.—*Malt extract.* JOHN CARRICK.

The extract is made from malted barley, wheat and oats, and contains all the soluble albumen of the grains in solution. This result is reached by conducting the conversion and evaporation at a temperature not exceeding 120° F.

February 24, 1880.

224,766.—*Vapor motor.* EDWIN M. BRADY.

Claim: A mixed vapor, adapted for use as a motor for machinery, the same consisting of vapor of bisulphide of carbon and vapor of saponified paraffine oil.

224,841.—*Compound for removing paint or varnish.* WILLIAM H. NOR-DABY.

Consists of lime, sal-soda, aqua-ammonia, creosote and water.

224,883.—*Compound for preserving fruit.* JOSEPHUS CRAFT.

Ten grains each of bisulphite of calcium and bichromate of sodium, dissolved in one ounce of glycerine. This is added to one quart of sugar syrup, heated to 200° F., and poured over the fruit.

224,927.—*Dye-stuff or coloring matter.* FRIEDRICH KOEHLER.

A bluish-red coloring matter produced from the sulpho acid of diazo-azo-benzole and a bisulpho acid of beta-naphthole.

224,928.—*Dye-stuff or coloring matter.* FRIEDRICH KOEHLER.

A red coloring matter produced from the sulpho acid of diazo-azo-benzole and beta-naphthole.

Foreign Patents.

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

by OTTO H. KRAUSE.

CARL LOEWIG, Breslau: *Clarification of beet and cane juice, syrup, &c.* (Germ. P., No. 8033, December 17, 1878.)—1,000 parts of cane juice are treated with 2 parts of lime, $1\frac{1}{4}$ – $1\frac{1}{2}$ per cent. of colloid alumina, and, after a few minutes, slowly heated to 60° and 70° C. The deposit formed, contains the acids previously in combination as potassium salts, coloring, and other organic matters. Hydrofluosilicic acid or basic aluminium chloride is added to the filtrate, for the purpose of removing or neutralizing alkalies.

The juice can be evaporated immediately, or it may be still further improved by filtration through bone black.

The same treatment may also be applied to the intermediate products of the refining process.

Molasses or syrup is first diluted to 40° or 50° Brix. 1 per cent. of lime, and then colloid alumina added, until a filtered sample remains clear upon addition of basic plumbic acetate.

The filtrate passed through bone black, or treated by the osmose process, and evaporated, is said to yield an odorless syrup, from which sugar crystallizes out liberally.

EMIL JACOBSEN, Berlin: *Method of preparing sulpho acids of rosaniline, and coloring matters derived from them, and of alizarine and of purpurine, by the action of sulphuric chlorhydrate.* (Germ. P., No. 8764, March 1, 1879.)—Equivalent quantities of rosaniline, substituted rosanilines or their salts, alizarine or purpur