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.

July 6, 1880.

229,518.—*Acid phosphate for baking powders.* CHAS. A. CATLIN.

Seems to claim dicalcic phosphate as a substitute for cream of tartar.

229,573 and 229,574.—*Preparation of potassium phosphate and of sodium phosphate for baking powder.* GEORGE F. WILSON and CHARLES A. CATLIN.

The manner of preparation and the exact nature of these compounds cannot be understood from the claims.

229,586.—*Extracting precious metals from ores.* THOMAS C. CLARK.

The claim is for roasting the ore and dropping it, while hot, in a cold solution containing salt, prussiate of potash and caustic soda.

229,653.—*Process of making whisky.* MARSHALL T. ALLEN and WILLIAM E. BRADLEY.

Proposes to wash out the sugar and starch contained in the "slop," and to use the liquid in a fresh operation in place of water.

229,669.—*Separating graphite from foreign matter.* HUGH BURGESS.

In passing the graphite-bearing mineral between rollers, the mineral is crushed, while the particles of graphite are only flattened. Sifting separates the two materials.

229,697.—*Extract of coffee.* DAVID C. GUE and JOSEPH C. GRANT.

A fluid extract of coffee, consisting of a mixture of a cold infusion of the berry, primarily obtained, with a cooled decoction of the residuum of the infusion.

229,705.—*Pulverulent preparation of phosphoric acid.* EBEN N. HORSFORD.

A solution of phosphoric acid is absorbed in dry starch, and this preparation dried and pulverized. In connection with a dry alkaline carbonate it can be used as a baking powder.

July 13, 1880.

229,817.—*Manufacture of vulcanized india-rubber products.* HENRY GERNER.

A mixture of india-rubber, camphor and flour.

229,924 and 229,925.—*Roofing cement and roofing composition.* TERENCE SPARHAM.

The first named product consists of plumbago, soap-stone and coal-tar, the second of the same ingredients with an addition of mica.

229,928.—*Tanning process.* THOMAS P. TUCKER.

The process consists in the successive treatment of the hides with various liquids of a very complex nature, for the particulars of which the specification must be seen.

July 20, 1880.

230,103.—*Filtering-press.* LEVI L. BAXLEY.

230,106.—*Process for making and purifying sulphate of alumina or alum.* WILLIAM, THOMAS and JAMES CHADWICK and JOSIAH W. KYNASTON.

The object is to remove the iron from the solution of sulphate of alumina. According to claim 2, arsenious acid is added to the solution, which is neutralized with carbonate of lime until the iron is precipitated. The residual arsenic is precipitated with sulphuretted hydrogen.

230,151.—*Porous or spongy mineral composition and non-conductor of heat.* DE WITT C. SANFORD.

A combination of plaster of Paris, bicarbonate of soda and water, to which is added flour, glue, glucose, or paper-pulp.

230,158.—*Machine for testing lubricants.* ROBERT H. THURSTON.

230,171.—*Process of, and apparatus for, treating the residuum from petroleum refineries.* HENRY BOWER.

The process is for the recovery of sulphuric acid from sludge acid, and consists in the washing of the latter with water and in the mechanical separation of the acid solution from oily and carbonaceous matter. The acid solution is concentrated in lead vessels and afterwards distilled. The essential part of the invention seems to be the apparatus used, for description of which the specification must be seen.

230,216.—*Process for manufacturing nitro-derivatives from cellulose, etc.* JULES A. ARNAULT and JULES and CHARLES SCHMERBER.

The materials are treated with nitric acid, in a gaseous state.

230,225.—*Tanning and preparing leather.* SAMUEL BLOOM.

230,239.—*Process and apparatus for distilling petroleum.* SAMUEL CHENEY.

By distilling with live steam under a pressure of 75 pounds, about 20 per cent. of light lubricating oil is recovered from crude heavy oil.

230,303.—*Manufacture of aqua ammonia.* JAMES L. MARSH.

Claims the heating of a mixture of sulphate of ammonia, lime and water, by steam applied to the surface of the containing vessel, and, at the same time, agitating it by means of a horizontal stirrer, to expose the greatest possible area of surface to the heat.

230,369.—*Treating molten copper for making cast hollow cylinders, and other castings.* SAMUEL WALKER.

To the molten metal is added cryolite, either alone or together with borax, or acetate of lead, or both, in order to prevent porosity.

July 27, 1880.

230,398.—*Purifying extracts of bark.* EARNSHAW BRADLEY.

The extract is evaporated to a density of 10° Bé, and then artificially cooled in an apparatus constructed for the purpose. The liquid is conducted through a series of vats, overflowing one into another, where the substances which have been separated on cooling, are allowed to settle.

230,415.—*Phosphated nutritive powder.* SAMUEL W. HALEY.

Milk is precipitated with monobasic phosphoric acid, and the washed and dried curd is mixed with phosphate and bicarbonate of soda, salt and flour.

230,501.—*Apparatus for the recovery of waste sulphuric acid.* AMÉDÉE G. SEBILLOT.

Relates to the treatment of certain ores with sulphuric acid. For particulars, reference must be had to the specification.

230,518.—*Refining cocoa-nut oil.* ALEXANDER P. ASHBOURNE.

Boiling the oil with sugar, eggs and alum.

Foreign Patents.

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

ALFRED NOBEL, Paris: *Apparatus for concentrating sulphuric acid and similar liquids.* (Germ. P., No. 10149, January 15, 1880.)—A tower constructed cast iron pipes, within which a number of porcelain basins are supported, one above another, upon suitable projections. Each basin has a hole through which a glass rod passes and rests upon the one below, thus permitting the acid which enters at the top of the tower, to flow from one basin to another without spattering. When all the basins are filled, the tower is heated by means of the hot air flues which surround it. The acid vapors evolved, as well as the concentrated acid, are drawn off below. The apparatus is based upon the property of cast iron of resisting the action of sulphuric acid *vapor*, and it is claimed that even acids containing nitrogen compounds may be concentrated in it.

H. UNGER, Leipsic: *Improvements in apparatus for the ammoniacal manufacture of soda.* (Germ. P., No. 10392, December 21, 1879.)—The sodium bicarbonate to be calcined is passed through a system of retorts, by means of endless screw conveyers. Suitable arrangements are provided to exclude air. The opening for withdrawing the gases and vapors is so placed that the latter cannot come in contact with and be condensed by the cold bicarbonate entering the apparatus.

T. WASTCHOUK and N. GLOUCHOFF, Moscow: *Preparation of caustic alkalies by electrolysis.* (Germ. P., No. 10039, December 2, 1879.)—The novel feature of this method, already previously attempted, of preparing sodium hydrate from