

8. Waters which contain magnesium chloride, sulphate and carbonate, and calcium carbonate, or other combinations of these bases and acids, are purified in a similar manner.

9. From waters containing lime and magnesia, these have to be removed by soda and heat, as otherwise they prove very destructive to iron.

J. C. GLASER, Berlin: *Methods to remove the bitter taste from lupine seeds, and to preserve them.* (Germ. P., No. 6175, Nov. 10th, 1878.)

JULIUS W. KLINGHAMMER, Braunschweig: *Thalpotasimeter.* (Germ. P., No. 8101, Feb. 5, 1879.)—A new thermometer consisting of an S-shaped tube, closed at one end and filled with a substance which must be a gas at the temperature to be measured. At the open end of the S-shaped tube, a gauge measures the inside pressure, and from this the temperature is calculated.

G. KUEHNEMANN, Dresden: *Improvement regarding the automatic introduction of substances into the analyzer, and the treatment of tough pastes in the same.* (Germ. P., No. 7849, April 11th, 1879.)—This apparatus is intended for the separation of soluble from insoluble substances, as well as for that of the volatile from the non-volatile. There is but little doubt but that this apparatus will be a welcome help in many technical branches, and the improvements intend to extend its usefulness. A useful description cannot well be given without a cut.

## American Patents.

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

November 4, 1879.

221,187.—*Processes for removing extractive matters from tanned leather.* GEORGE PLUMER and CHARLES P. KERANS.

Brief: Treats the tanned leather with a solution of borax and water previous to the re-tanning of the said leather, in order to remove all extractive matter, and softens and cleanses the leather.

221,200.—*Galvanizing metal.* WM. H. WAHL and EDWARD Y. ELTONHEAD.

Before being subjected to the process of galvanizing, the iron objects are treated in an acidulated bath of chloride of zinc.

221,219.—*Processes for tanning.* MILO L. DOTY.

The object is to dispense with the use of machinery for steeping and handling the hides, and, instead, to apply directly to the hides suspended in open air, a moist, pasty compound, containing tannin. This compound consists of ground grain, a solution of tannin and salt, and is repeatedly moistened until the hide is thoroughly tanned.

221,281. *Manufacture of chrome steel.* RICHARD BROWN.

Chromates or bichromates of the fixed alkalies, or the alkaline earths, are mixed with the molten metal.

221,297.—*Manufacture of tartaric acid.* HERMANN GOLDENBERG.

An abstract of the German patent has been given in this JOURNAL, I, 299.

221,308.—*Compounds for filling the pores of wood.* THOMAS G. HOJER.

A mixture of "barytes, whiting, calcined plaster, raw linseed oil, and liquid manganese drier."

221,357.—*Processes for curing meats.* I. MOWAT REID.

Meat is subjected to the action of heated, compressed air, in an air-tight apparatus.

221,381.—*Preparation of dye-stuffs.* MORRIS WISE.

Relates to the preparation of a dye-stuff from pimento leaves.

*November 11, 1879.*

221,400. *Alloys for journal-bearings.* BENJAMIN I. DOWNS.

An anti-friction metal composed of  $32\frac{1}{2}$  pts. tin, 5 pts. copper, 2 pts. antimony.

221,421. *Kerosene oil testers.* THOMAS DE WITT PICKNEY.

The bulb of a thermometer is made in the shape of a cup which contains the oil, the flashing-point of which is to be ascertained.

221,541. *Processes for preventing mould upon meats.* LORENZO FAGERSTEN.

Meat cured in the ordinary way is dipped in a hot solution of boracic acid, or its salts, and finally smoked.

221,580.—*Artificial leather.* CHARLES H. KNELLES.

Claim: A plastic compound for coating fabrics to imitate leather, consisting of gluc mastic, dextrine, glycerine, chloride of iron, chrome-alum, and a suitable pigment.

221,630.—*Manufacture of artificial marble and stone.* JAMES H. THORP.

221,649.—*Treating furnace slag to convert the same into tiles, slabs and blocks.* JOSEPH WOODWARD.

The objects are removed from the moulds, while yet in a hot state, and annealed in a separate furnace.

*November 18, 1879.*

221,706.—*Carboys.* DANIEL E. SRYBEL.

Proposes to protect the neck of a carboy by a removable cap attached to the case.

221,753.—*Production of cold in ice machines.* CYPRIEN M. TESSIÉ DU MOTAY and LEONARD F. BECKWITH.

Proposes to use in ice machines a mixture of methyl chloride and anhydrous sulphurous acid, or similar gases, which are liquifiable at approximately the same temperature and pressure, and of which one is an inflammable, and the other a fire extinguishing gas.

221,836.—*Processes of making pigments of white lead.* GEORGE T. LEWIS and EAYRE O. BARTLETT.

The fumes arising from any metallurgical operation, in which lead or its ores are treated, are collected and "re-burned."

*November 25, 1879.*

221,923 and 221,924.—*Centrifugal apparatus for forcing volatile or corrosive liquids from sugar or other substances.* OTTO H. KRAUSE.

A description of this apparatus cannot be given without reference to drawings. The inventor proposes to treat substances which are impregnated with volatile or corrosive liquids, in a centrifugal machine, without loss of the liquids, or injury to the machine. He accomplishes this object by filling the magma into boxes of a peculiar construction, which are made of such material as will best resist the action of the various substances under operation. The mother liquor separated from the magma by centrifugal action, is retained in a separate compartment of the box, whence it can be removed, after stopping the machine, without again coming in contact with the dried substance.

222,100.—*Apparatus for making sulpho-cyanides.* JOSEPH TSCHERNIAC and HENRY GUENZBURG.

The process for which a German patent has been taken, is described in this JOURNAL, I, 118.