

215,471.—*Process for freezing and pressing paraffine oil.* T. M. McMILLAN.

Crude paraffine oil from petroleum is cooled down to about 0° F., and the liquid part separated while cold by filtering under pressure.

215,477.—*Assayers self-calculating sample and button weighers.* T. S. PHILLIPS.

215,572.—*Purifying, circulating and rarifying air.* A. T. CHASE.

Air, before being admitted into the room, is conducted over ice, then heated and finally passed "over disinfecting chemical substances."

May 27, 1879.

215,756.—*Process and apparatus for distilling petroleum.*—J. L. KIRK.

The crude petroleum enters in a continuous flow a series of parallel pipes connected at their alternate ends, and placed in a furnace. The vapors evolved in the separate sections of the pipe pass through filters, and after being mixed with sulphuric acid vapors are separately condensed.

215,757.—*Composition for casting ornamental figures.* A. KIESELE.

The composition consists of a mixture of paraffine and starch.

215,811.—*Process and apparatus for mashing grain.* T. A. EBERHARDT.

In order to prevent the formation of acids in the mash, the malt is mixed with the boiled grain in vacuo.

215,875.—*Lubricating materials for use in wire drawing.* A. B. BROWN.

A mixture of a solution of alkaline phosphate and flour.

215,899.—*Solutions for galvanic batteries.* CHAR. A. EHRENBERG.

Claim: The use of urine as an excitant in galvanic batteries

MISCELLANEOUS.

At the conversazione of May 15th, held at the Stevens Institute of Technology, Hoboken, N. J., President Henry Morton and Mr. Wm. E. Geyer exhibited a number of specimens and some experiments illustrating the formation of the new dyestuff now beginning to attract much attention, and known by the trade names of "fast-red" and "rocceline," and which is, in fact, a compound from diazo-naphthaline and β naphthol, together with sulphuric acid, and by preference, also, with an alkaline base: in other words, a sodium salt of the sulpho-acid of oxyazonaphthaline.

The process of building up this compound, beginning with naphthaline, is as follows:

Naphthaline, by treatment with nitric acid, is converted into nitro-naphthaline. This, by distillation with acetic acid and iron, is converted into naphthylamine, and this, by addition of hydrochloric acid, into hydrochlorate of naphthylamine. If a solution of this salt, acidulated with hydrochloric acid, is poured into a solution of sodium nitrite, the naphthylamine will be converted into diazo-naphthaline, by the introduction of an atom of nitrogen in place of the two hydrogen atoms of the amine root.