of the chips, by which the free passage of the water would be prevented, the chips are moistened with a solution of superphosphate of lime, before extraction begins.

#### 214.594.—Lubricants. Wm. Smith.

Palm oil,  $4\frac{1}{2}$ ; cotton-seed oil, 10; lard oil, 10; crude petroleum, 25 parts.

## 214,636.—Electric lights. T. A. EDISON.

Brief: The heat of the lamp operates an automatic device for the purpose of relieving the intensity of the current through the incandescent light-giving strip, by throwing a portion of the current, when the light becomes too intense, through another circuit.

# May 6, 1879.

## 215,096.—Refining copper. MARIA CHAPMAN.

Treating molten copper with "an argillaceous mineral, an alkali, borate of soda, carbon or carbonaceous matter and glass."

## 215,108.—Filter presses. A. DREVERMANN.

The filter presses described in this patent have excited a great deal of interest among chemists and manufacturers in Germany. Essential features are the absence of any kind of filtering cloths, plates of prepared coke or sandstone being used as a filtering material. The presses can be worked under very high pressure and allow a perfect washing of the residue. The arrangement is rather complicated, and cannot be properly described without reference to drawings.

#### 215,199.—Explosive compounds. A. DIECKERHOFF.

Mixtures in different proportions of alkaline pikrates, nitrates and sulphur, with or without charcoal.

# May 13, 1879.

# 215,287.—Process for obtaining pure yeast and producing specific fermentation, J. C. Pennington.

The process consists in taking care that a small quantity of good yeast or another organized ferment, which is to be used as seed, is perfectly pure and uniform and free of other ferments. This is done by enclosing the material in a flattened capillary glass tube and examining it with the microscope. A special claim relates to these flat capillary tubes.

# May 20, 1879.

## 215,463. - Solutions for electrolysis of lead. N. S. KEITH.

An improvement on a previous patent for the production of pure lead from base bullion, by means of electrolysis, consisting in the addition to the solution of lead, in which electrolysis takes place, of a salt, the solution of which is a better conductor of electricity than lead salts.