

# UNITED STATES PATENT OFFICE.

FRANCIS X. BYERLEY, OF CLEVELAND, OHIO.

## IMPROVEMENT IN PURIFYING PARAFFINE.

Specification forming part of Letters Patent No. **132,353**, dated October 22, 1872.

*To all whom it may concern:*

Be it known that I, FRANCIS X. BYERLEY, of Cleveland, county of Cuyahoga and State of Ohio, have invented an Improved Process for Obtaining Paraffine Wax from Paraffine Oil, and for Refining the same, of which the following is a specification:

Take the paraffinized oil which has been chilled in the usual manner--if it is in a solid mass it should be broken up into fragments by any suitable means--and place it in an open vessel with a perforated false bottom. This false bottom should be covered with canvas or other suitable straining medium, and closely fitted to the sides of the vessel at a short distance from the main bottom. Should it be desired to preserve the temperature of the chilled mass during the process, this vessel should be surrounded by a larger one and the space between them filled with a cooling-mixture. The vessel containing the chilled mass of paraffinized oil is connected below the false bottom with a pump or other contrivance for drawing off the oil as it drains away from the mass. After the chilled oil has been placed in the vessel aforesaid the pump is set in motion and the oil is thus carried off, leaving the paraffine wax in its crude state above the false bottom.

To refine this wax, naphtha, gasoline, or any other solvent of paraffine, or the oil, is sprinkled over it. The pump being kept constantly in motion, the solvent and the parts dissolved are thus carried off, the action of the pump accelerating the filtration. The sprinkling and pumping is continued until the paraffine has been refined to the desired point.

Should the object be to refine crude paraffine obtained in any other manner, the paraffine should first be ground in the usual way, and then placed in the vessel with the false bottom and treated as above described.

This process may be applied to all analogous substances--such as lard, stearine, &c.--with like results, and is a very quick and efficient process.

I claim--

The improved process of obtaining or separating paraffine wax from the oil by the action of a pump, connected with the receiver in which the paraffine is placed, at a point below the perforated false bottom, substantially as herein described.

F. X. BYERLEY.

Witnesses:

JOHN G. WHITE,  
C. W. NOBLE.