

# UNITED STATES PATENT OFFICE.

SAMUEL M. MOTT, OF WELLSVILLE, NEW YORK.

## IMPROVEMENT IN MANUFACTURE OF LUBRICATING-OILS.

Specification forming part of Letters Patent No. 32,885, dated July 23, 1861.

*To all whom it may concern:*

Be it known that I, SAMUEL M. MOTT, of the town of Wellsville, Allegany county, and State of New York, have invented or discovered a new and Improved Lubricating-Oil; and I hereby declare that the following is a full description thereof.

The nature of the invention or discovery is so preparing or so treating crude rock or other mineral oil that when mixed with certain salts, lime, and soap by means of steam the said oil becomes a suitable lubricating material for lubricating machinery and other purposes. Rock-oil of itself is too light and thin to be used as a lubricator, from the fact that when poured upon the bearing of machinery it quickly runs off and cannot be made to adhere sufficiently long to be a good lubricator. The device therefore consists in thickening the crude oil with foreign substances which do not combine with it ordinarily, but will combine when brought into contact and heated by the agency of steam.

The materials used in the process are crude rock or mineral oil, common salt, saltpeter, unslaked lime, common bar-soap, and steam of water.

To enable those skilled in the art to make and use my invention or discovery, I will proceed to describe the means I employ to carry it into operation.

The apparatus necessary to prepare lubricating-oil is an air-tight boiler, excepting where the steam passes into the pipe and through the pipe into the oil, which is placed into a tank or tub or any other receiver arranged in any suitable way. The boiler should be set in an arch. The oil-receiver should be placed far enough from the boiler to have the oil secure from fire, as in its crude state it would explode if brought in contact therewith. The boiler used should be replenished occasionally with water and not allowed to get dry. To prevent

this it would be well to have a funnel set into the boiler and made tight by solder, and through this the water might be fed, and then place a cork into it to prevent the steam from escaping.

To one gallon of oil put into the tank or receiver of oil, put two gallons of water into the boiler, along with two ounces of common salt, one-fourth ounce of saltpeter, one ounce of unslaked lime, and one-fourth ounce of common bar-soap. To combine these with oil, steam is let in through the pipe and continued until the oil boils and becomes of a proper consistency for lubricating purposes. The length of time will vary according to the density of the oil. It probably will be necessary to keep up the steam from five to seven hours. To determine when it has boiled sufficiently, occasionally dip a little from the receiver, cool it, and dip in a stick or your finger, and if of a proper consistency for lubricating it will stream off like thin molasses. If not boiled sufficiently, it will drop off like water. The effect produced by this combination is a good lubricator, rendering it non-explosive and destroying most of the odor.

I do not claim that the effects produced by the above-described combinations are the only ones that will produce a good lubricator, and I do not confine myself to these proportions merely; but they are such as I have found to answer well.

What I do claim as my invention or discovery is—

The within-described method of preparing lubricating-oil from crude rock or mineral oil by subjecting it to the action of steam combined with the chemicals within described, in the manner herein set forth.

SAMUEL M. MOTT.

Attest:

WM. F. JONES,  
JOHN CARPENTER.