

# UNITED STATES PATENT OFFICE.

BRIDGET FRENCH, OF ROCHESTER, NEW YORK, ASSIGNOR TO CHARLES T. HAM, JOHN B. CARSON, AND ROSWELL HART, OF SAME PLACE.

## IMPROVEMENT IN LUBRICATING COMPOUNDS.

Specification forming part of Letters Patent No. **195,890**, dated October 9, 1877; application filed May 24, 1877.

*To all whom it may concern:*

Be it known that I, BRIDGET FRENCH, of Rochester, New York, have invented an Improved Lubricating Compound, of the composition of which, and the mode of compounding the same, the following is a specification.

My invention relates to an improved lubricating oil or compound to be used in lubricating the journals of locomotives, cars, or other machinery, and to the method of compounding the same.

My improved lubricating compound is composed of petroleum or other oil, plumbago, tallow, resin, tar, and Glauber's salts, in the following proportions, which I have found to be preferable for general purposes: One gallon of petroleum, from one to six ounces of finely-ground plumbago, six ounces of resin, three ounces of tallow, one ounce of tar, and one ounce of Glauber's salts.

The quantity of solid substances combined with the oil, as here given, may be increased during the summer months, or decreased during the winter, without injury to the resulting compound. It will also be found that as the quantity of the solid substances is increased the amount of plumbago which the oil will hold in suspension will be greater. Any desired grade of oil may, therefore, be made from these substances, when compounded as hereinafter described.

Pitch may be substituted for the resin, in whole or in part. Alum may be used in the

same proportions in place of the Glauber's salts. Epsom salts in increased proportion answer the same purpose, but are more expensive.

In preparing my improved lubricating compound the plumbago and salts are boiled in the oil, in which the salts will entirely dissolve, and the tallow, resin or pitch, and the tar, having been melted together, are added while hot to the boiling oil. The whole is then allowed to cool, being thoroughly agitated and incorporated together during this time.

The tallow, resin, and tar, when melted together, form a compound which combines readily with the boiling oil, and imparts to it the property of holding the plumbago in suspension, in quantities increasing with the proportion of the solid substances used.

My improved lubricating compound, as herein described, will be found to possess lubricating qualities of the highest order, is permanently fluid at ordinary temperatures, entirely free from lumps, and retains the plumbago in suspension for an indefinite time.

I claim—

The herein-described lubricating compound, composed of petroleum, plumbago, tallow, resin, tar, and Glauber's salts, in the proportions substantially as described.

BRIDGET FRENCH.

Witnesses:

L. A. WATSON,  
T. G. OUTERBRIDGE.