

UNITED STATES PATENT OFFICE.

ROBERT FITZGERALD, OF CLEVELAND, OHIO, ASSIGNOR TO CHARLES L. MOREHOUSE, OF SAME PLACE.

IMPROVEMENT IN LUBRICATING COMPOUNDS.

Specification forming part of Letters Patent No. 151,214, dated May 26, 1874; application filed May 4, 1874.

To all whom it may concern:

Be it known that I, ROBERT FITZGERALD, of Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Lubricating-Grease Compound, of which the following is a description of the ingredients and the process of compounding the same.

I take about one hundred and seventy-five gallons of pressed paraffine oil, sixty gallons resin oil, and twenty gallons lime-water or cream of lime, which in amount is two hundred and fifty-five gallons in all. The proportions of the said formula may be varied thus, viz., one hundred and eighty-nine gallons of pressed paraffine oil, forty-five gallons resin oil, and eighteen gallons putty-lime or cream of lime, to which may be added three gallons of resin varnish, in all about two hundred and fifty-five gallons. In compounding these ingredients one example will be given in the described process.

For a quantity equal to about two hundred and fifty-five gallons, or one thousand one hundred pounds, more or less, take one hundred and eighty-nine gallons, of 25° gravity, pressed paraffine oil, to which is added forty-five gallons of first-run light-colored resin oil. These are mixed thoroughly together in a compounding-vat. To this mixture is then added eighteen gallons of fine white-lime putty, or cream of lime, soft, and as free from water as possible. The whole is placed in a cylinder-agitator, and by means of the paddles and arms of the agitator the mass is worked and thoroughly incorporated.

The particulars of the process for compounding the grease is as follows: First, place in a vat eighteen gallons of white-lime putty or slaked lime. After the water has risen to the top it is drawn off. This slaked lime or

putty is strained and placed in the agitator, which is then set in motion. To this agitated mass of lime is let in a stream of the compound of paraffine oil and resin oil, say, from five to ten gallons, until the mass is thoroughly broken up and blended together, which, on being done, more oil compound is added, from five to ten gallons, which is also beat in and blended with the mass in the agitator. At this stage of the process is added about three gallons in all, at different intervals, of resin varnish, which is thoroughly incorporated with the mass. The compound of paraffine and resin oil is added from time to time, until the agitator is full as can be worked.

The batch of grease, now finished, is now drawn off through the bottom of the agitator into a tub, from which it is boxed for the market.

I do not confine myself to the exact proportions specified for the compound, as a variation may be made according to the gravity and purity of the ingredients. In case a less quantity is to be made than the amount stated, the proportions of the ingredients would be reduced, but holding the same relation.

What I claim as my invention, and desire to secure by Letters Patent, is—

The herein-described compound for axle-grease, consisting of the ingredients specified, viz., paraffine oil, rosin oil, white-lime putty, and rosin varnish, substantially in the manner as set forth, and for the purpose described.

ROBERT ^{his} × FITZGERALD.
mark.

Witnesses:

W. H. BURRIDGE,
A. F. CORNELL.