

UNITED STATES PATENT OFFICE.

ELISHA DYER, JR., OF PROVIDENCE, RHODE ISLAND.

IMPROVEMENT IN LUBRICATING COMPOUNDS.

Specification forming part of Letters Patent No. **111,441**, dated January 31, 1871.

To all whom it may concern:

Be it known that I, ELISHA DYER, JR., of the city and county of Providence, in the State of Rhode Island, have invented a new and useful Lubricating Compound.

My invention relates to a certain novel composition designed as a lubricant for journal-bearings, &c., and which, being especially adapted to car-axle bearings, I have designated as "Improved English Railway-Grease;" and I do hereby declare the following specification to be a full, clear, and exact description thereof.

In the manufacture of my lubricating compound I employ the following ingredients, in about the proportions given, viz: Of animal fat, grease, or tallow, fifty (50) parts; of palm-oil, fifty (50) parts; of paraffine, five (5) parts. These ingredients are to be melted together and raised to such a degree of heat as will insure perfect assimilation, and, while hot, I add a solution of water and bicarbonate of soda. The mass is then carefully stirred, and allowed meantime to cool and harden until it becomes of the consistency of paste, after which it is run off into suitable vessels.

The quantity of bicarbonate of soda used should be varied to render the compound more or less fusible, as may be desired in different seasons of the year.

For ordinary summer use, to, say, one hundred and five pounds of the compound, add two hundred parts of water in which thirty parts of bicarbonate of soda have been dissolved.

I am aware that a great variety of lubricating compounds has heretofore been made; but I am not aware that palm-oil has ever before been used in the combination described.

As this oil contains a large proportion of solid fat, it has as a lubricant a special value, and, when combined substantially as specified, has great solidity, yet fuses slowly at a low temperature when in direct contact with warm surfaces.

For use in car-axle boxes the compound described may be mixed with any suitable fibrous absorbent.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

The lubricating compound herein described, composed of animal fat, grease, or tallow, palm-oil, and paraffine, in the proportions and prepared substantially as set forth.

ELISHA DYER, JR.

Witnesses:

P. B. STINESS, JR.,
PETER F. HUGHES.