

# UNITED STATES PATENT OFFICE.

A. S. GRENVILLE, OF WESTBOROUGH, MASSACHUSETTS.

## IMPROVED LUBRICATING COMPOUND.

Specification forming part of Letters Patent No. 6,071, dated January 30, 1849.

*To all whom it may concern:*

Be it known that I, ALONZO S. GRENVILLE, of Westborough, in the county of Worcester and State of Massachusetts, have invented a new and useful Lubricating Composition or Anti-Friction Oil; and I do hereby declare that the following is a full and exact specification of the same.

Take fifty gallons of lard-oil, sixteen gallons of sperm-oil, or sixty-six gallons of either sperm-oil or lard-oil, and add to the same fourteen gallons of cod-liver or straits oil; next, to the said mixture of oils add for each gallon thereof four ounces of carbonate of magnesia; to the whole, if more body is required, a small quantity of French chalk—say three-quarters of an ounce—or white oxide of lead—say two and one-half drams—or both, may be added. The whole being well commixed constitutes an excellent and very cheap composition for lubricating the bearings or running parts of machinery.

I do not intend that in the manufacture of the above the exact proportions of the ingredients as above stated shall always be followed, as they may often be varied to advantage, and particularly when preparing the composition for various temperatures.

The object I have in view in using the straits or cod-liver oil in connection with either the sperm or lard oil, or both, and magnesia is that it causes the magnesia to be held in suspension in the mixture of oils. It cannot be suspended in either the sperm or lard oils, or in a compound of both; but as it will float on the straits-oil and not sink therein, I combine the straits-oil with either or both the other kinds of oils in quantity sufficient to produce the powers of suspension required in the mixture. The magnesia is a highly anti-corrosive

material. When used in connection with the oleaginous matter it almost, if not entirely, prevents corrosion, or, in other words, for all practical purposes prevents the same.

I am aware that soap has been combined with either plumbago, steatite, or French chalk, or any two or more of the said substances.

I am also aware that it is a common matter to make a lubricating composition of sperm-oil and either plumbago or some other substance or substances of like character. I lay no claim to the mixture of such compounds.

The soap generally used and made of either potash or soda, and, in fact, from most any alkali except carbonate of magnesia, does possess or have a corrosive property which prevents its being used to good advantage or without detriment on the bearings of machinery. I therefore make use of the carbonate of magnesia, and in order to keep it in suspension in either the sperm-oil or lard-oil, or a mixture of the two, I add the straits-oil to the sperm or lard oil, or both, or any other oil or mixture of oils of similar character—that is, whose powers of suspension of the magnesia are not sufficient.

I therefore claim as my invention—

The combination of the straits-oil with the magnesia and the sperm-oil, lard-oil, or a mixture of the two, or any oleaginous matter or matters possessing like powers of non-suspension, the same enabling me to make a very cheap and efficacious anti-friction oil to be applied to the lubrication of machinery.

In testimony whereof I have hereto set my signature this 24th day of February, A. D. 1848.

ALONZO S. GRENVILLE.

Witnesses:

HENRY MILLS,  
JAMES ATKINS.