

UNITED STATES PATENT OFFICE.

JOHN J. FINK, OF WASHINGTON, DISTRICT OF COLUMBIA.

OIL MIXTURE.

945,711.

Specification of Letters Patent.

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No Drawing.

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To all whom it may concern:

Be it known that I, JOHN J. FINK, a citizen of the United States, residing at Washington, District of Columbia, have invented certain new and useful Improvements in Oil Mixtures, of which the following is a specification.

This invention relates generally to lubricating oils, but more particularly to that class of compounds known in commerce as "oil-mixtures;" and it has for its chief object to provide an inexpensive and efficient compound for mixing with vegetable, animal or mineral oils, lards, tallows, greases or fats, whether in a crude or refined state, the purpose being to increase the bulk, and, in some instances, to add to the efficiency of the oil as a lubricant.

Many of the lubricating oils in common use are liable to become thick and gummy where used on journals of comparatively high speed, and this condition leads to hot journal bearings. Even with the better grades of lubricating oils this condition exists to a greater or lesser extent, and to overcome this defect, in lubricants of whatever grade, is another object of my invention.

This compound is also adapted for use with paints, or linseed oil, either boiled or raw, and serves to add materially to the bulk of the paint without changing the color or affecting the gloss, appearance, or durability of the paint when applied.

For engine and cylinder oils, the compound or mixture is especially efficient in keeping the bearings cool and clean.

My compound or mixture comprises the following ingredients, viz: unslaked lime of best quality; pulverized French chalk; carbonate of potash; calcined magnesia; pulverized borax, and sal soda or soda ash. The proportions which I have found, by experiment to give the best results, are preferably as follows for making, say fifty gallons of the compound, viz:

Unslaked lime	14 to 15 pounds;
Pulverized French chalk	20 ounces;
Carbonate of potash	22 ounces;
Calcined magnesia	16 ounces;
Pulverized borax	18 to 20 ounces;
Sal soda or soda ash	8 ounces.

These ingredients are placed in a suitable receptacle, and 10 to 12 gallons of hot water are added to dissolve and intermingle the various constituents. Forty to forty-five

gallons of cold water are then added and thoroughly mixed by stirring, after which the mixture is allowed to settle. I do not wish to be understood as confining myself to any specific quantity of water, either hot or cold, as the quantity may be varied according to the condition and character of the oils, grease, etc. employed. After the sediment has gone to the bottom of the receptacle, the clear liquid is permitted to remain in the receptacle to be drawn off as required for use.

To make forty gallons of good quality cylinder or engine lubricating compound, I prefer to take:

Lard oil or cylinder oil	17 gallons;
Castor oil, or machine oil	3 gallons;
The above described mixture	20 gallons.

If it is desired to produce a heavier lubricant, more of the mixture should be added, which will give to the lubricant more body. For lard oil, or any light animal oil, equal quantities of oil and mixture produce good results, and keep the journals cool and clear. For heavy oils, one-third oil and two-thirds mixture is preferred.

If it is desired to produce a good black oil lubricant, say forty gallons, the following ingredients and proportions are preferred, viz:

Any kind of black or machine oil	15 gallons;
Lard oil, animal oil, or cheap grease	5 gallons;
The above described mixture	20 gallons.

If greater body is desired, add more mixture.

The alkaline constituents of the mixture act as a detergent in keeping the journals clean, while the water has a cooling effect.

The mixture readily incorporates with oil or grease, producing an emulsion, the chalk being held in suspension, and does not separate or change the color or appearance of the oil, and it adds materially to the lubricating quality of any oil with which it is incorporated, and nearly doubles the quantity at slight cost.

Having thus fully described my invention, what I claim is:—

1. A lubricating compound comprising a lubricating oil, containing saponifying oil, emulsified with a mixture consisting of lime-water, French chalk, carbonate of pot-

ash, magnesia, borax, and sal soda, in approximately the proportions specified.

2. A lubricating compound comprising a lubricating oil, containing saponifying oil,
5 emulsified with a mixture consisting of unslaked lime, 14 to 15 pounds; pulverized French chalk, 20 ounces; carbonate of potash, 22 ounces; calcined magnesia, 16 ounces;

pulverized borax, 16 to 20 ounces, and sal soda or soda ash, 8 ounces.

In testimony whereof I affix my signature
in presence of two witnesses.

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JOHN J. FINK.

Witnesses:

H. H. HOMER,
JOHN F. RICE.