

UNITED STATES PATENT OFFICE.

BRIDGET FRENCH, OF ROCHESTER, NEW YORK.

IMPROVEMENT IN LUBRICATING COMPOUNDS.

Specification forming part of Letters Patent No. 131,264, dated September 10, 1872.

Specification describing a certain Improvement in Lubricating Compounds, invented by Mrs. BRIDGET FRENCH, of the city of Rochester, county of Monroe and State of New York.

My invention consists of a lubricating compound composed of the ingredients hereinafter specified and about in the proportions named.

The formula is as follows: Petroleum or other oil, one gallon; tallow, (beef or mutton,) four ounces; bees-wax, one and one-half ounce; soda, one-half ounce. To these elements may be added, if desired, one-half ounce of Glauber or Epsom salts, for the purpose hereinafter stated. This compound is intended more especially for light machinery and bearings, and is therefore made limpid and of a light grade, so that it will spread and flow easily. It may be made heavier, and be therefore adapted to heavier machinery, by adding a greater proportion of the tallow or bees-wax, or both. The proportions of any or all the parts may be somewhat varied without changing the principle. This is necessary in adapting the compound to different kinds of machinery, or to summer and winter use. The body may be composed of any suitable oil, but I prefer petroleum or the earth oils. The tallow combined with this imparts to it the proper unctuous character, and also gives the proper density or solidity. The combination of the tallow and the soda forms soap and saponifies the mass. Instead of the tallow and soda applied separately, soap itself may be applied in the compound. The bees-wax not only increases the lubricating power, but it incorporates and binds the parts in a more fitting union; and by experiment I find that by its use the same

quantity of the compound will last much longer and perform more service than if it is not used, the tendency being to hold the material to the journal and prevent its rapid dissipation. The salts have a cooling tendency, and hence are of advantage in summer use. In cold weather they are of less service, and hence I do not wish to confine myself to their use in the compound. These salts, as well as the tallow and bees-wax, have a tendency to solidify the mass.

I am aware that some of these ingredients have before been used in lubricating-compounds, but in different combinations, and in different proportions. In a former patent of my own bees-wax has been employed to hold plumbago in suspension; but in that case a heavy oil is produced, specially adapted to heavy machinery, while in the present case my design is to produce a light and limpid oil which can be used on light machinery where the other cannot. The ingredients and proportions in my present case are different from those in my former patent.

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

The lubricating compound composed of petroleum or other oil, tallow, bees-wax, and soda, either with or without Glauber or Epsom salts, in proportions substantially as named.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

BRIDGET FRENCH.

Witnesses:

R. F. OSGOOD,
ARCHIE BAINE.