UNITED STATES PATENT OFFICE.

WILLIAM H. SMITH AND MATTHIAS C. OSBORN, OF HIGHTOWN, ALABAMA.

IMPROVEMENT IN LUBRICANTS.

Specification forming part of Letters Patent No. **208,697**, dated October 8, 1878; application filed September 7, 1878.

To all whom it may concern:

Be it known that we, WILLIAM H. SMITH and MATTHIAS C. OSBORN, of Hightown, in the county of Cleburne and State of Alabama, have invented a new and useful Lubricating Compound, which is fully described in the following specification.

This invention relates to that class of lubricators or class of compounds used to lubricate the axles of cars, carts, wagons, buggies, and all other vehicles, as well as heavy machinery; and it consists of a composition of kaolin, alkali, and lard-oil; or, in lieu of said oil, either kerosene-oil or petroleum-oil, or any kind of oil or grease commonly used for lubricating purposes, may be substituted in the process of manufacturing said lubricator.

To prepare our lubricator, we first take a proper quantity of kaolin, and thoroughly purify it by elutriation. The fine floury substance that floats off and settles under such purifying process is first dried and then thoroughly pulverized. This done, it is then mixed with oil and alkali in the following proportions, to wit: kaolin, fifty-five parts; oil, thirty-eight parts; alkali, seven parts—the whole constituting a composition of one hundred parts, in which the largely-predominating element is the purified kaolin.

This mixture, in practical use on iron or brass boxes or axles, fills the pores of the metal and prevents it from wearing and heating; and practical test has demonstrated that it will cool a hot box on a passenger-coach of a railroad without the necessity of stopping or slackening the speed of the train to allow such box to cool off.

The kaolin is indestructible by fire, and being a heavier material than oil, the alkali is used in the mixture to prevent it from precipitating or settling to the bottom after a quantity has once been prepared for use.

This kaolin compound will not decompose by age, because the kaolin cannot be burned. It absorbs the oil or grease and alkali, and as the kaolin cannot be ignited, the spontaneous combustion of this lubricator cannot be produced.

We are aware that in lubricating compounds heretofore employed a small proportion of kaolin has been utilized as an element thereof; but in our said compound the elutriated kaolin constitutes the base or predominant element.

Having described our improved lubricating compound, what we claim as new and our invention is—

The lubricating compound composed simply of elutriated kaolin, alkali, and oil, in about the proportions herein described, for the purpose set forth.

Witness our hand this 24th day of August, A. D. 1878, in matter of our application for a patent on a lubricating compound.

WM. H. SMITH.
MATTHIAS C. OSBORN.

Witnesses:
WINSTON C. WOOD,
J. M. JOHNSON.