## UNITED STATES PATENT OFFICE.

ETHAN A. TONNER, OF ST. LOUIS, MISSOURI.

## IMPROVEMENT IN LUBRICATING COMPOUNDS.

Specification forming part of Letters Patent No. 136,945, dated March 18, 1873.

To all whom it may concern:

Be it known that I, ETHAN A. TONNER, of St. Louis, in the county of St. Louis and State of Missouri, have invented a new and useful Improvement in Lubricating Compound, of which the following is a specification:

The object of this invention is to furnish a lubricant for car-axles and other purposes which shall be durable in its character and efficient in its action; and it consists in a comcompound composed of the ingredients in about the proportions hereinafter named.

In forming my compound, I take of tallow and oil or similar oleaginous substances, three pounds; Tripoli, two pounds; lamp-black, one ounce. These ingredients are thoroughly mixed together after the tallow is reduced to a liquid state by the application of heat.

The Tripoli and lamp-black polish the journal, while the tallow and oil lubricate it.

Tripoli is especially adapted to the purpose which I have in view, as it is a good non-conductor of heat, and heat does not diminish its polishing qualities. It is also a most active

absorbent, and will take up and hold about thirty-five per cent. of its own weight in oil, and will retain it under a red heat until it is thrown off in the form of gas. Tripoli adheres to a hot journal the same as to a cold one. This, together with its capacity as an absorbent, renders it peculiarly adapted for the purposes to which I apply it.

I am aware that many mineral substances have been employed in combination with tallow and oil and other oleaginous substances. I distinctly disclaim all mineral substances except Tripoli, having thoroughly tested it and become convinced of its great superiority for the purpose named.

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

The above-described lubricating compound, substantially as specified.

ETHAN A. TONNER.

Witnesses:

JAMES LITTLE, JOHN S. BREWER.