UNITED STATES PATENT OFFICE.

ELI E. HENDRICK, OF NEW YORK, N. Y.

IMPROVED LUBRICATING COMPOSITION.

Specification forming part of Letters Patent No. **35,753,** dated July 1, 1862.

To all whom it may concern:

Be it known that I, ELI E. HENDRICK, of New York, have invented a new and useful lubricating compound for the purpose of lubricating the bearings or journals of machinery; and I do hereby declare that the following is a full and exact description of the same, reference being had to the accompanying specimens, and the letters of reference marked thereon.

To enable others skilled in the art to make and use my invention, I will proceed to describe its composition and the manner of compounding the same.

I dissolve one ounce (or more or less) of caoutchouc in one gallon of what is commonly known as "coal-oil," "rock-oil," and "petroleum;" and for this purpose it makes no difference though the oil be unrefined, yet for the purpose of lubrication it is better that the oil should be freed from the sand and grit or other solid matter incident to its natural state as it comes from the oil-well, before dissolving the caoutchouc in it. To facilitate the dissolving of the caoutchouc with the oil, I pare off the caoutchouc into fine thin shavings, and then place the shavings in the oil; and if a rapid dissolving of the caoutchouc is desirable it may readily be effected by applying a heat of about 200°. This solution is then ready for use as a lubricator for machinery.

I would here state that although other substances—such as the animal and vegetable oils, lamp-black, gamboge, and sulphur, or the like—might be added to my lubricator, yet they are by no means essential, enhance the cost, and can without detriment be dispensed with.

I am aware that purified oil—such as paraffine and coup oil—have been placed in a vessel and heated by surcharged steam, and thereafter that caoutchouc placed in a wire basket has been suspended therein and subjected to a heat of 220° to 280° until they so intermix that when cool the fluid will not string; but this is an expensive process, requiring time and much care, aside from the time and expense required to refine the oil in the first instance, to say nothing of the residuum of salt and acid retained by the oil in the process of its purification, which acts detrimental to the axles of machinery when used thereon. I am also aware that paraffine-oil or other oils procured from coals have heretofore been used as a solvent for caoutchouc, and thereafter that other oils or fatty matter have been added thereto to constitute the main fluid portion for lubricating purposes; but even in such case the paraffine-oil or other oils procured from coals were used merely as a solvent for the caoutchouc, and not to constitute the main fluid portion of the lubricator; but the refining of coup-oil by repeated distillation and treatment with sulphuric acid and caustic soda, and the preparation of paraffine-oil by a similar treatment of acids and salts, leaves more or less of the acid and salt as an element in such oil after it is prepared, all of which is deleterious to the metal or journal of machinery. I therefore discard and disclaim the use of all oils treated with acids. Oils of coal distillate I neither use as a solvent for the caoutchouc nor as a constituent portion of my lubricator. On the contrary, I use the coal-oil of nature, as contradistinguished from distilled oil from coals.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent of the United States, is—

As a lubricator for machinery, a fluid or compound the bulk or excess of which is composed of coal-oil produced in a state of nature, and with which caoutchouc is combined.

September 6, 1861.

ELI E. HENDRICK.

In presence of—

J. C. BURGESS,

D. BARBER.