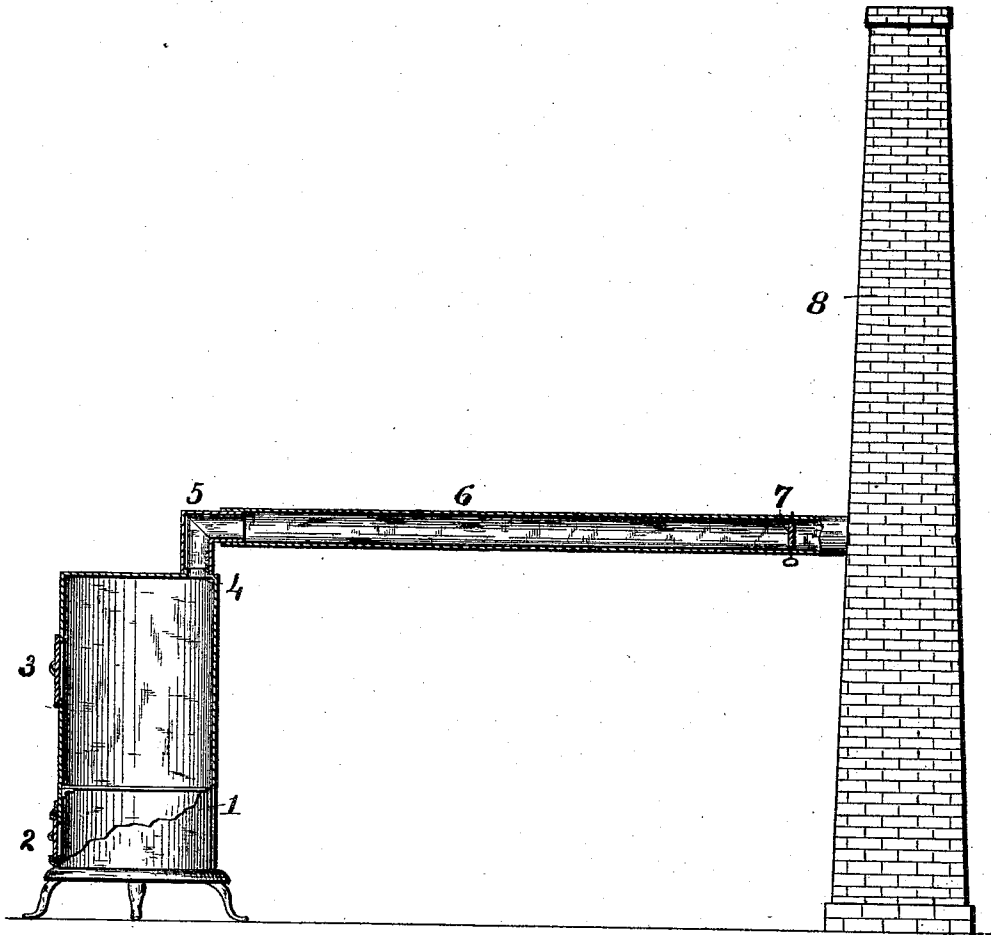


(No Model.)

W. S. LEVER.
LUBRICANT.

No. 496,742.

Patented May 2, 1893.



ATTEST.
J. Henry Kaiser
Harrison Kingman

INVENTOR.
Walter S. Lever.
By *J. M. Sale* Att'y.

UNITED STATES PATENT OFFICE.

WALTER S. LEVER, OF KNOXVILLE, IOWA, ASSIGNOR OF FORTY-NINE ONE-HUNDREDTHS TO WILLIAM M. STONE AND WILLIAM A. STONE, OF SAME PLACE.

LUBRICANT.

SPECIFICATION forming part of Letters Patent No. 496,742, dated May 2, 1893.

Application filed April 28, 1892, Serial No. 431,056. (No specimens.)

To all whom it may concern:

Be it known that I, WALTER S. LEVER, a citizen of the United States of America, residing at Knoxville, in the county of Marion and State of Iowa, have invented certain new and useful Improvements in Lubricants, of which the following is a specification, reference being had therein to the accompanying drawing.

10 The object of my invention is to supply a composition of matter that when applied as a lubricant to a heated journal in motion will cause the journal to cool gradually without slackening its speed.

15 I attain my object by the means hereinafter set forth and claimed.

In the drawing, the figure is a view in longitudinal section of my device for collecting soot.

20 Like characters of reference denote the same parts throughout the view.

In central Iowa, and particularly in the county of Marion the top deposit, or roof, of coal veins is very soft and possesses qualities and constituent elements among which is presumably iron in some of its forms which I have found to produce the best results in preparing my lubricant.

I construct a furnace having a fire pot 1 of cylindrical form with a draft opening 2, a fuel door, 3, smoke escape 4, and extending therefrom elbow 5, pipe 6 with damper 7, the pipe 6 leading into a chimney, 8. The fire pot should be located a considerable distance from the chimney, approximately twenty five feet for the best results. After igniting a fire, preferably of ordinary kindling wood, I deposit in the fire pot a sufficient quantity of the soft carboniferous substance taken from the top strata of coal veins, particularly from those located in the district hereinbefore indicated, to fill the fire pot up to the fuel door, 3; I then close the fuel door and open the damper 7, and draft opening 2, keeping them open a sufficient time to allow the carbonif-

erous substance to become well ignited; when thus ignited I reduce the draft by closing draft opening 2 and so regulating the damper 7 that the combustion will be very slow. I get the best results by allowing from six to ten hours for the combustion of each charge. When the contents of the fire pot is red throughout and shows approximately the condition of being coked I disconnect the pipe and elbow at the fire pot and allow the fire pot, pipe and elbow to cool. There will then be found in the upper part of the fire pot and in the pipe and elbow a sooty deposit in great abundance having a dark brown color approaching to black which will be comparatively free from grit. This sooty deposit readily mixes with oil or any oleaginous material and when so mixed constitutes my lubricant; it is different from ordinary lamp-black in that it contains materials which remain a residue after the main body of the deposit has been consumed; thus, for instance, if this deposit is mixed with oil and subjected to the action of heat with the free access of air it will be partly consumed but will leave a sensible residuum which has, on being collected and rubbed, a distinct oily feeling; ordinary lamp-black on being heated in this way will leave no lubricating residuum.

The proportion of the sooty deposit to oils in common use which I have found to effect the desired object is about one table spoonful of the sooty deposit to one quart of any lubricating oil, but good results will flow from a variation of these proportions. It is probable any coal deposit will measurably possess the same elements.

I do not confine myself to the use of the sooty deposit derived from the slow combustion of carboniferous material taken only from the coal veins named.

Having thus described my invention, I claim—

1. A lubricating composition consisting of oil and a sooty deposit derived from the slow

combustion of the soft carboniferous strata of coal beds, such composition having the property of leaving a residuum possessing lubricating qualities when heated in the air, substantially as set forth.

5 2. A lubricating composition consisting of oil and a sooty deposit derived from the slow combustion of coal deposits having the property of leaving a residuum possessing lubri-

cating qualities when heated in the air, substantially as set forth.

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

WALTER S. LEVER.

Witnesses:

N. HERSHLER,

JAMES H. RUDINGHER.