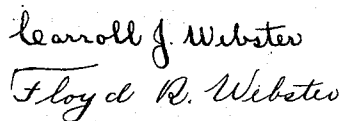


W. H. PUGH.
JOURNAL BOX LUBRICATOR.

Patented Jan. 15, 1895.



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JOURNAL-BOX LUBRICATOR.

SPECIFICATION forming part of Letters Patent No. 532,485, dated January 15, 1895.

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To all whom it may concern:

Be it known that I, WILLIAM H. PUGH, of Minneapolis, county of Hennepin, and State of Minnesota, have invented certain new and useful Improvements in Journal-Box Lubricators; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form part of this specification.

My invention relates to a journal box lubricator, and has especial relation to that class employed in the lubrication of journals to car axles.

The object of the invention is to provide for a regular and continuous feed of the lubricant, with means for excluding dust and grit from the lubricant.

A further object is to provide for giving notice of a heated journal by means of a contacting substance with the journal that shall be effected by the heat of the journal to a degree to cause the same to quickly emit a strong odor and thereby notify the trainman.

The invention consists in the parts and combination of parts hereinafter described and pointed out in the claims.

In the drawings: Figure 1 is a side elevation of a car axle box with the side removed to disclose the journal and lubricator in position. Fig. 2 is a top plan view of the box on lines X—X, Fig. 1, showing the detachable division plate of the oil receptacle with the guide, the wick carrier and wick in place. Fig. 3 is a transverse sectional elevation showing the relative position of the parts within the box. Fig. 4 is an isometric perspective of the wick carrier and wick.

1 designates the box, which may be of the usual or any preferred construction; 2, the journal, and 3 the brass.

3' designates division plate which fits closely within the box and excludes the dirt or grit from the oil well 4 below the same, and is sustained at the proper height by legs 5, which rest upon the bottom of the box. Division plate 3' is formed with an elongated opening 6 co-inciding with the vertical center

of the journal bearing and of slightly less length.

7 designates a guide formed with depending flanges 8, which enter the opening 6 in the division plate, said guide being of a width to rest upon the division plate, and being nearly the length of the oil receptacle of the box.

Upon the outer end of the guide is formed projections 10 to enter the perforations 11 formed upon the inner side of the end of the box, the inner end of the guide having an elliptical spring 12 secured centrally thereto, with the projecting end 13 provided with pins 14 to enter perforation in the inner end wall of the box, whereby the guide can be readily inserted or removed from the box.

15 designates a wick carrier by which an even capillary feed of oil upon the journal is insured, and consists of side plates 16 between which the wick 17 is clamped and held in proper adjustment with relation to the journal by means of hooks 18 which are preferably formed upon the top and bottom edges and enter the fabric of the wick with opposite inclinations, and hold the same from vertical displacement in either direction. The side plates are distanced as to their proper separation to accommodate the wick when doubled in two thicknesses by means of end portions 19 secured between the plates, which end portions are formed of a substance easily affected by heat to cause the same quickly to emit an offensive odor in order to give notice of the heating of the journal by reason of a defective brass, or lack of supply of lubricant.

I have found in practice that to form the end portions 19 of leather which has been saturated with rosin and tallow will provide for immediate effect from the heat of a heated journal, and cause smoke and odor that will at once attract the attention of the persons in charge of the train, and in this manner give notice of a hot journal, while it will not be affected by the normal temperature of the journal.

The wick carrier is placed within openings 9 in the guide 7 and has free vertical movement therein, there being springs 20 connected with the carrier, and resting upon the bottom

of the box or oil well, which automatically adjusts the wick to proper functional contact with the journal to insure a constant delivery of the oil thereto as it is fed from the oil supply by capillary attraction.

Oil is introduced into the oil well through an opening in the division plate 3', which is closed by means of a cover 21 pivotally secured thereto.

In Fig. 2 in dotted lines is shown a modified construction of the guide 7 in which the same is of two parts, so as to be inserted into car boxes in which the lower line of the journal is below the line of the box without removing the brass.

From the foregoing description it will be seen that the device is free from complication, and consequently inexpensive of construction, and that by reason of the peculiar character of the end pieces to the wick carrier, the smoke and odor incident to a heated journal will give immediate notice of the same.

What I claim is—

1. The combination with the journal box having an oil space the full size of the lower portion thereof, of a detachable division plate arranged within the box above the oil space and having an opening therein for the entrance of lubricant, said plate being of the

size of the oil space, a movable closure for the opening secured to the plate, there being a longitudinal opening in the plate, a guide having downwardly extending side flanges and a longitudinal opening, projections at each end of the guide for engagement with perforations in each end of the journal box above the division plate, a wick holder carrying a wick movably secured in the guide, end stops upon the wick holder, said stops being formed of leather or analogous material so prepared as to be quickly rendered odoriferous by heat, and springs for holding the wick holder to the axle.

2. In a journal lubricator, a journal box having an oil space, a guide secured in the box above the oil space, said guide being formed of sections and means for securing the sections together in the journal box, a wick holder carrying a wick movably arranged within the guide, and means for forcing the wick to the axle.

In testimony that I claim the foregoing as my own I hereby affix my signature in presence of two witnesses.

WILLIAM H. PUGH.

Witnesses:

H. M. CURRY,

A. I. GREEN.