

(No Model.)

J. ROGERS.
LUBRICATING JOURNAL BOX.

No. 581,307.

Patented Apr. 27, 1897.

Fig. 1.

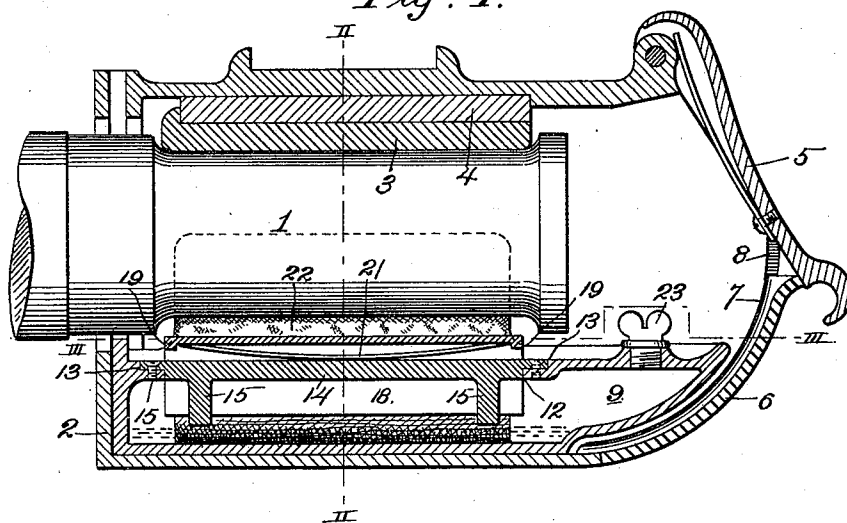


Fig. 2.

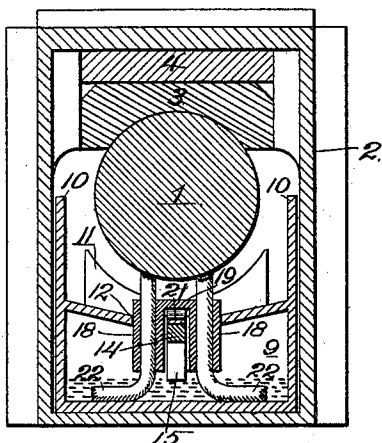


Fig. 4.

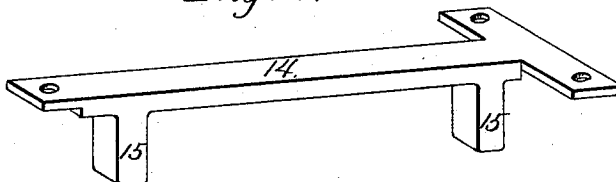


Fig. 5.

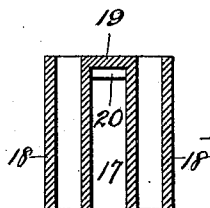
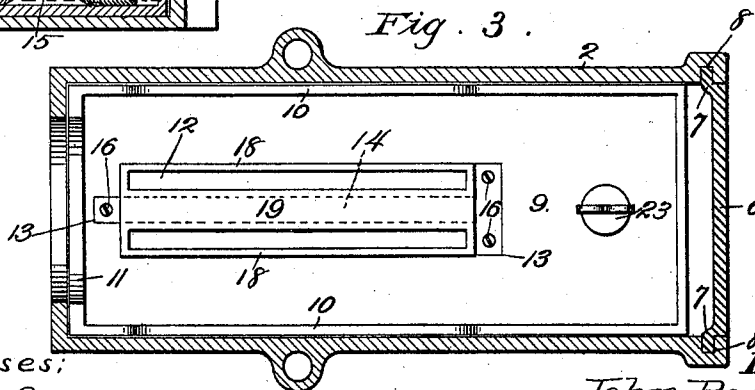


Fig. 3.



Witnesses;

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UNITED STATES PATENT OFFICE.

JOHN ROGERS, OF KANSAS CITY, KANSAS.

LUBRICATING JOURNAL-BOX.

SPECIFICATION forming part of Letters Patent No. 581,307, dated April 27, 1897.

Application filed February 19, 1897. Serial No. 624,102. (No model.)

To all whom it may concern:

Be it known that I, JOHN ROGERS, of Kansas City, Wyandotte county, Kansas, have invented certain new and useful Improvements in Lubricating Journal-Boxes, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part thereof.

My invention relates to lubricating journal-boxes; and it consists in certain novel and peculiar features of construction and organization, as hereinafter described and claimed.

One object of the invention is to produce a device of this character which is simple, strong, durable, and inexpensive of manufacture.

Other objects of the invention will hereinafter appear.

In order that the invention may be fully understood, I will proceed to describe it with reference to the accompanying drawings, in which—

Figure 1 represents a vertical longitudinal section taken through the center of my improved lubricating journal-box. Fig. 2 represents a cross-section taken on the line II II of Fig. 1. Fig. 3 represents a horizontal section taken on the line III III of Fig. 1. Figs. 4 and 5 represent detail views of parts hereinafter described.

In the said drawings, 1 designates the spindle of a car-axle.

2 designates the journal-box, which, except in a certain particular, which will be hereinafter referred to, is of the customary construction.

3 designates the journal-brass.

4 designates the wedge interposed between the brass and the top of the box.

5 designates the door of the box.

The front and rounded lower end of the box, (numbered 6,) instead of being cast integral with the box, as customary, is in this instance removable, it being provided at its opposite margins with the flanges or ribs 7, which engage the correspondingly-curved grooves 8 in the sides of the box. To place said section in or remove it from position, the door must be first opened, and then it can be slid in or out of said grooves, and when the door is closed it bears against the upper edge

of said section and maintains it reliably in position.

9 designates a reservoir used in connection with the journal-box. It is of the proper width, length, and depth to fit snugly in the box below the spindle and is rounded at its front end so as to conform to the curvature of the rounded end of the box. It is thus extended beyond the end of the spindle and rounded at such extended end in order that it may not be moved longitudinally under the jolting action of the car and that its capacity may be increased. In order that it may have an extended bearing within the box, its side walls are extended upwardly, as shown at 10, and its rear end wall is extended upwardly, as shown at 11. It is provided vertically below the spindle with a longitudinal slot 12, and is recessed at opposite ends of said slot, as shown at 13. A bridge-plate 14 extends longitudinally of said slot at its middle and rests at its opposite ends in the recesses 13 above referred to, and said plate is provided with the depending vertical guide-arms 15, the object of which will presently appear. The plate is secured rigidly in position by means of the screw-bolts 16, as shown clearly in Fig. 3.

17 designates a wick-tube. In plan view it is of the same form or outline as the opening 12, and comprises two vertical parallel tubes 18 and a cross-bar 19, connecting said tubes at their upper ends and provided with the shoulders 20 at its opposite ends and under side.

In practice the wick-tube, or rather double wick-tube, is slipped down through the opening at opposite sides of said bridge-plate until it rests upon the spring 21, said spring being interposed between said bridge-plate and the cross-bar 19 of the wick-tube and having its ends engaging or adapted to engage the shoulders 20 of said cross-bar in order to prevent any possible chance of longitudinal displacement of said spring, as will be readily understood.

The wick-tube is maintained in its vertical position at all times by reason of the fact that it has an extended bearing upon the guide-tube 17, said tubes 18 fitting snugly against opposite sides of the guide-arms 15. If this

guide or an equivalent were not provided, it is obvious that the wick-tube might bind in the opening 12 and thereby defeat the object of the invention, as if such event occurred 5 the spring 21 could not properly perform its function—viz., to automatically elevate the wick-tube to compensate for wear at the upper side of the wicks 22, which extend down through the tubes 18 and at their lower ends 10 are immersed in the oil contained in the reservoir.

By the construction described and shown it will be obvious that the lubricating-wicks are held with a yielding pressure upon the 15 spindle of the axle at all times.

The wicks, of course, are fitted tightly in said tubes, so as to provide against any chance of their slipping down and out of contact with the spindle to be lubricated.

20 In order that the reservoir may be resupplied with oil at times without necessitating its removal, it is provided with an opening near its front end, and a screw-plug 23 is employed to close said opening.

25 As it is obviously impossible to introduce a reservoir of the form and proportions described and shown through the door-opening, I have found it necessary and desirable to construct the box with the removable section 30 6, as described, so that when the reservoir is to be placed in the box it is only necessary to open the door, slide up the section 6, and fit the reservoir longitudinally within the box through the opening formed by opening or 35 removing, if preferred, said section 6. After the reservoir is in place the section 6 is fitted back in position and the door closed.

In case it be necessary at any time to remove the lubricating device for want of oil and a supply of the ordinary lubricating pack- 40 ing or waste is at hand said section 6 may be removed or elevated, the reservoir extracted, and the waste filled into the box in the customary manner.

It has been found in practice that this lu- 45 bricator is in every way more satisfactory than the old way of lubricating the journal-box and far cheaper, as one supply of oil to the reservoir is sufficient for several thousand miles of travel. There is no waste of oil, and 50 only that which is necessary and all that is necessary is supplied by the wicks through capillary action to the journal.

Having thus described the invention, what I claim as new, and desire to secure by Letters 55 Patent, is—

The combination with a journal-box, provided with a removable front section, of a lubricator consisting of an oil-reservoir provided with an opening, a plate bridging said 60 opening and provided with depending guide-arms, a wick-tube depending through said opening at opposite sides of said guide-arms, and a spring upon said bridge-plate and exerting its pressure up against the wick-tube, 65 so as to hold the wicks thereof with a yielding pressure against the spindle of the car-axle, substantially as described.

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

JOHN ROGERS.

Witnesses:

M. R. REMLEY,
G. Y. THORPE.