

(No Model.)

W. FALKNER.
JOURNAL BOX.

3 Sheets—Sheet 1.

No. 568,476.

Patented Sept. 29, 1896.

Fig. 1.

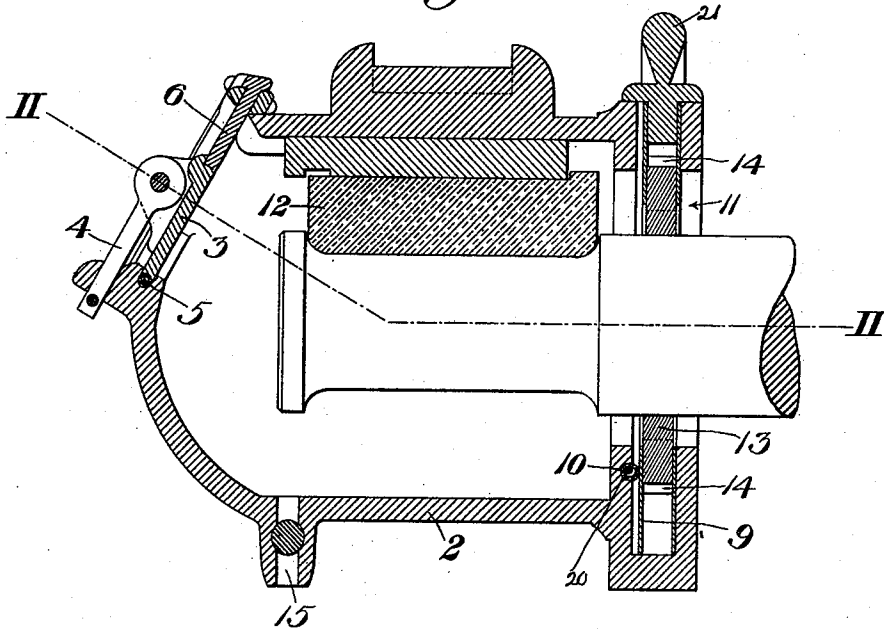
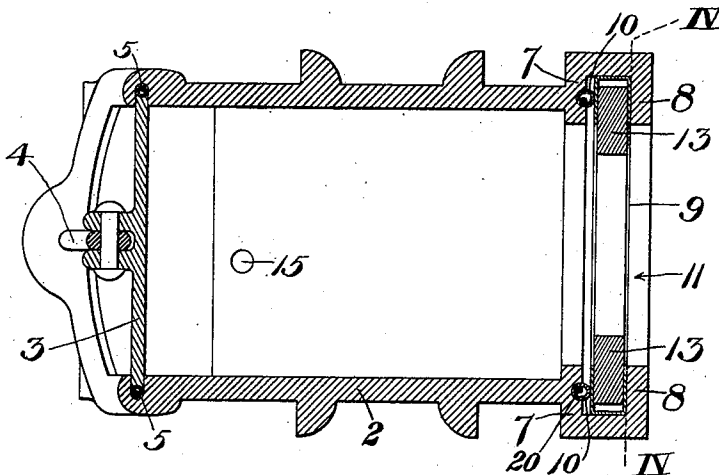


Fig. 2.



WITNESSES

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Fig. 3.

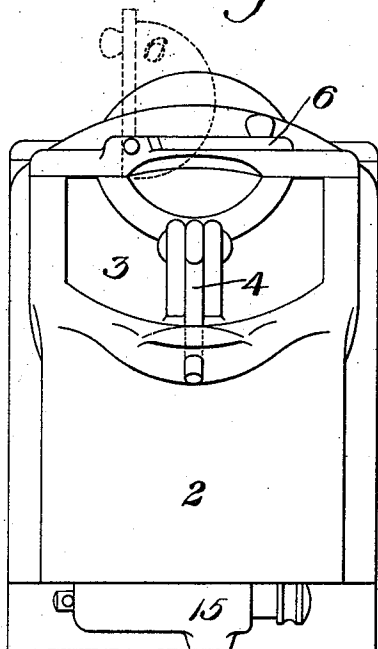


Fig. 5.

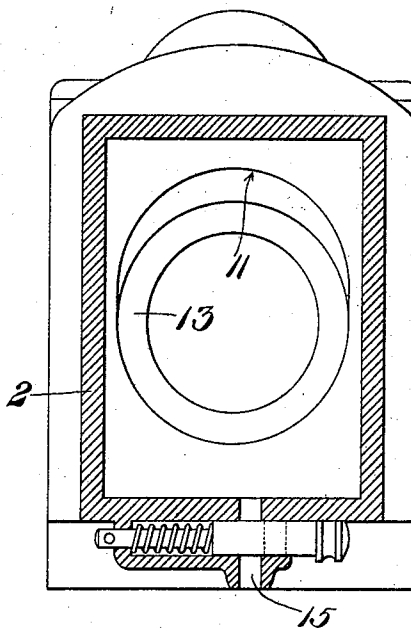


Fig. 4.

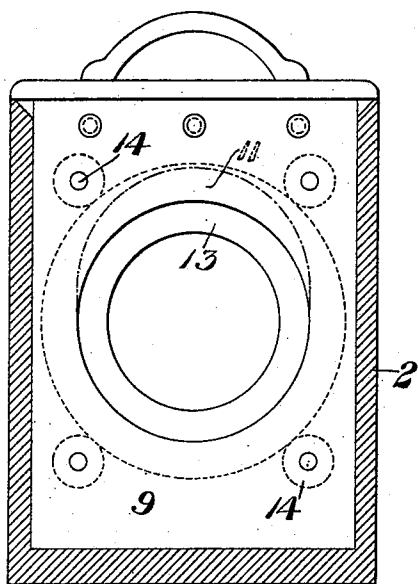
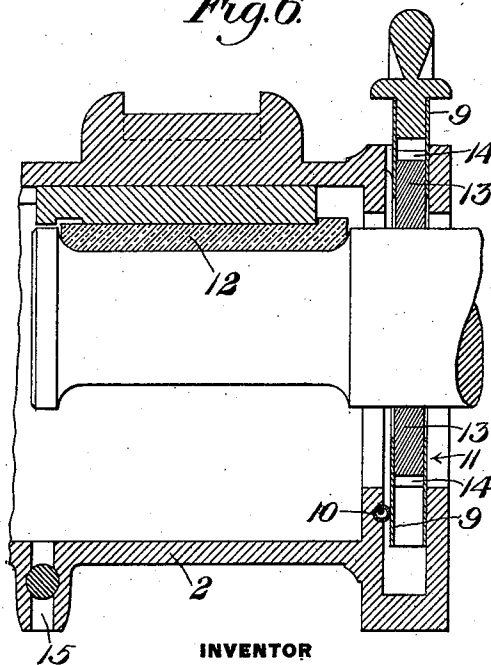


Fig. 6.



WITNESSES

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(No Model.)

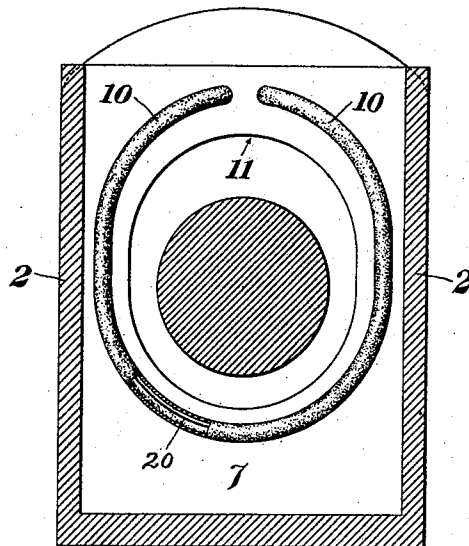
3 Sheets—Sheet 3.

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Fig. 7.



WITNESSES

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UNITED STATES PATENT OFFICE.

WILLIAM FALKNER, OF CONNELLSVILLE, PENNSYLVANIA, ASSIGNOR OF
ONE-HALF TO JOSEPH McMAHON, OF SAME PLACE.

JOURNAL-BOX.

SPECIFICATION forming part of Letters Patent No. 568,476, dated September 29, 1896.

Application filed June 30, 1894. Serial No. 516,150. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM FALKNER, of Connellsville, in the county of Fayette and State of Pennsylvania, have invented a new and useful Improvement in Journal-Boxes, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a vertical sectional view of my improved journal-box. Fig. 2 is a sectional view on the line II II of Fig. 1. Fig. 3 is a front elevation. Fig. 4 is a vertical cross-section on the line IV IV of Fig. 2. Fig. 5 is a vertical cross-sectional view with the axle removed. Fig. 6 is a vertical longitudinal sectional view showing the position of the parts when the journal-brass becomes worn, and Fig. 7 is a vertical sectional view through the space between the walls 7 and 8.

Like symbols of reference indicate like parts in each.

My invention relates to an improvement in journal-boxes for the axles of railway-cars and for like purposes; and its object is to provide an oil-tight box suitable for holding lubricating oils or material without the use of cotton-waste or other absorbent applier.

I will now describe my invention, so that others skilled in the art may manufacture and use the same.

In the drawings, 2 represents the body of the box, in the face of which is the sliding door 3, which closes the opening through which access is obtained to the interior of the box for the purpose of inserting the journal-brass. This door is secured by a bolt 4 and slides over a tubular rubber packing-ring 5, which seals the door and prevents the escape of the lubricating material. In the face of the door 3 is a smaller hinged door 6, which, when shut, is seated in a groove in the larger door, whereby a tight joint is secured. The purpose of this door is to allow of the introduction of lubricating material to the box without the necessity of unfastening the larger door 3, and thereby to permit sufficient oil to be introduced to lubricate the axle in the box. It also enables the contents of the box to be examined to ascertain whether or not a sufficient quantity of oil is contained in

the box. The rear face of the box is provided with double walls 7 and 8, having a space between them in which a hollow sliding case 9 is fitted. This plate 9 is formed of sheet metal in the form of a hollow case, and it is provided in its interior with the four rollers 14, which are journaled in the plate and form supports or guide-pieces for the annular rubber packing-ring 13, which ring fits closely around the axle, while the outer periphery of the ring bears against the rollers. A circular opening is formed in the case 9, concentric with and somewhat larger in diameter than the inner circumference of the ring 13. The case 9 is placed in the journal-box by sliding it down between the walls 7 and 8, the lower end of the plate extending to the bottom of the space between the walls 7 and 8, which is somewhat below the level of the bottom of the oil-chamber in the journal-box. This case is provided with a handle 21, by means of which the case, together with the packing-ring, may be easily removed from or placed in the space between the walls 7 and 8. In these walls 7 and 8 is an opening 11 for the passage of the axle, which opening is vertically elongated to allow for the change of position of the axle as the journal-brass wears away. As this brass gradually wears away, the journal-box sinks on the axle. The case 9, however, being fitted on the axle by the packing-ring 13 does not change its relative position therewith, but rises in the space between the walls 7 and 8, and by its projection above the top of the journal-box indicates the amount of wear of the brass.

In order that the case 9 may be slidable in the space between the walls 7 and 8, and at the same time to maintain a tight joint between the plate and the wall of the journal-box, I employ a packing-ring 10, which may be composed of a rubber tube having an interior core of wire 20, the ring being seated in a circular groove formed in the face of the wall 7, which groove may be concentric with the opening 11, extending not only below the opening 11, but also almost completely around the same, so as to prevent the escape of oil below, to prevent the admission of dust around the opening 11, and to afford an equal pressure against the case 9 above and below the

axle. At the bottom of the journal-box is the tap 15, by means of which the oil may be drawn from the box into an oil-can when it is desired to replace the journal-brass.

5 The advantages of my improvement will be apparent to those skilled in the art. The packing-ring 13 being fixed in the slidable case 9 and being held in its proper position by the rollers 14, which allow of the rotation
10 of the ring in the plate should the ring stick to the axle as the axle commences to revolve, all adjustment of parts or of the packing is obviated when it becomes necessary to renew the journal-brass, and while the case 9 is
15 freely slidable in the journal-box, yet the circular packing-ring 10 at all times maintains a dust and oil tight joint between the wall of the journal-box and the slidable plate. This packing-ring 10 being fitted in the groove in

the wall does not have to be interfered with 20 or displaced on the removal of the case 9.

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

The combination with an oil-tight journal- 25 box, of a hollow slidable sheet-metal case at the rear end thereof, and a projecting packing-ring fitted within the case and arranged to encircle the axle, and rollers against which the ring bears and which hold it in place; 30 substantially as and for the purpose specified.

In testimony whereof I have hereunto set my hand.

WILLIAM FALKNER.

Witnesses:

C. BYRNES,
F. E. GAITHER.