I. P. WENDELL.

Car-Axle Lubricator.

No. 111,287. Patented Jan. 24, 1871.

Fig. 1.

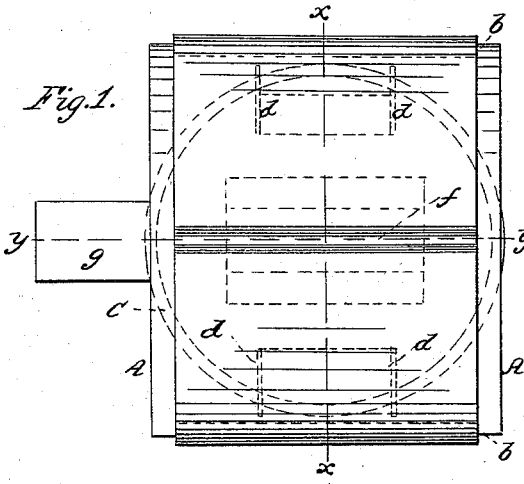


Fig. 2.

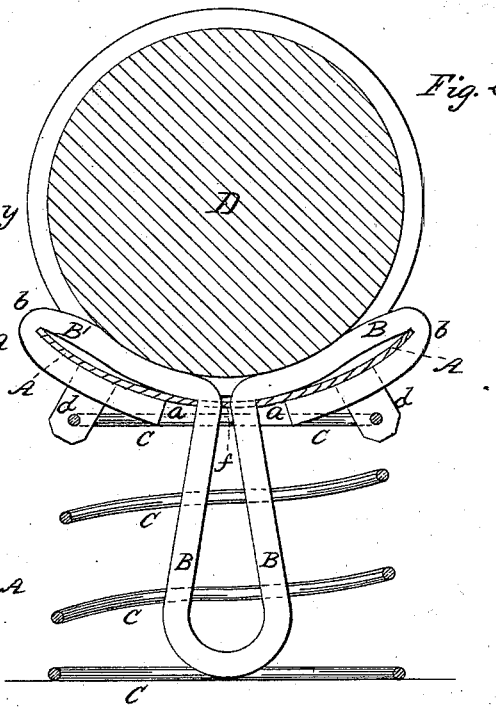


Fig. 3.

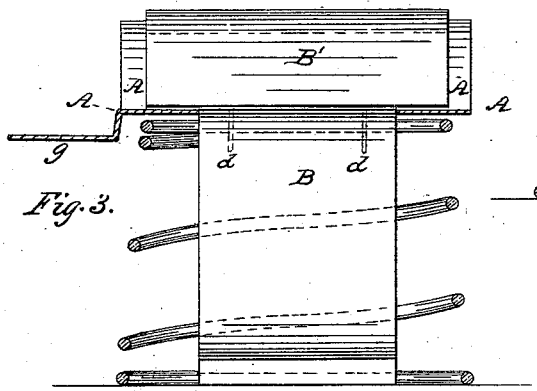
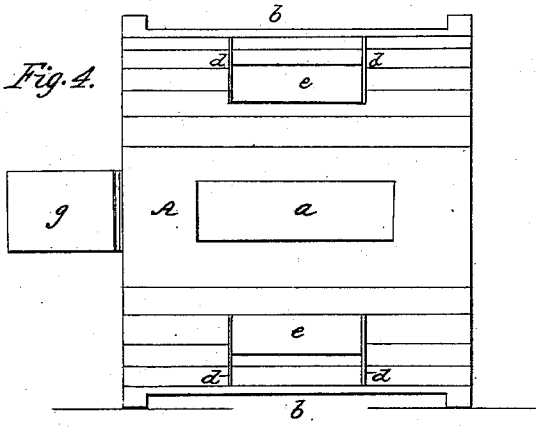


Fig. 4.



Witnesses:

Thomas J. Dailey

H. A. Henry

Inventor:

Isaac P. Wendell.

By his Atty.

Stephen Wotiek.

UNITED STATES PATENT OFFICE.

ISAAC P. WENDELL, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR OF ONE-HALF HIS RIGHT TO STEPHEN P. M. TASKER, OF SAME PLACE.

IMPROVEMENT IN LUBRICATORS FOR RAILWAY-CAR AXLE-BOXES.

Specification forming part of Letters Patent No. 111,287, dated January 24, 1871.

To all whom it may concern:

Be it known that I, ISAAC P. WENDELL, of the city of Philadelphia and State of Pennsylvania, have invented certain Improvements in Lubricators for Railroad-Cars, of which the following is a specification.

The nature of my invention consists of a curved plate beneath the journals, in combination with a strip of felt which is doubled and passed through a slot in the plate, the ends being bent over into the upper concave surface of the plate and over the edges of the same, and confined by means of the upper coil of a wire spring, which is passed through clips that project from the under side of the plate, the spring resting upon the bottom of the journal-box sustaining the plate, so as to cause the felt to gently touch the journal for a distribution of the oil, which is conveyed by capillary attraction through the felt from the bottom of the box. The slot in the plate is of such width that when the doubled strip of felt is passed through it and its ends confined, as above stated, an opening is left between the two parts of the felt for the passage of the excess of oil on the journal, and also to admit of the passage of grit or dirt which may collect on the same.

To enable others skilled in the art to which my improvement appertains to make and use my invention, I will now give a full description thereof.

In the accompanying drawings, which make a part of this specification, Figure 1 is a plan or top view of the lubricator. Fig. 2 is a vertical section at the line *x x* of Fig. 1 and of a journal, D, in connection with the same, the journal not being shown in the other views. Fig. 3 is longitudinal section at the line *y y* of Fig. 1. Fig. 4 is a reversed plan of the curved plate A.

Like letters in all the figures indicate the same parts.

A is a plate, which I form of tin or other metal, for holding the strip of felt B B′ B′. C is a wire spring, which rests upon the bottom of the box and holds the plate in its elevated position. The said plate has a middle slot, *a*, side recesses, *b b*, and clips *d d d d*. When the plate is made of sheet metal, the clips are constructed by making incisions in the plate parallel to the slot, a middle incision at right angles thereto, and bending the metal between the parallel incisions down each way by which the slots *e e* are produced. These slots are merely the result in forming the clips. They have no function to perform. The middle slot, *a*, is of sufficient width to admit of the vertical opening *f* between the felt when the middle part, B, is passed through, as seen in Fig. 2. This part of the strip is cut narrower than the end portions, B′ B′, the said parts being left nearly equal to the length of the journal, to insure a complete distribution of the oil. The ends B′ B′ of the strip are turned over the edges of the plate A through the recesses *b b*, and are folded against the under side of the plate. They are provided with slits which pass over the clips *d*. The said clips have holes through which the upper part of the wire spring C passes, as seen clearly in Fig. 2. By this means the spring is connected with the plate A, and also holds the ends of the felt against the under side of the same. The plate A is provided with a clip, *g*, at its outer end, which is used in removing the lubricator. The clip may be made in the cutting out of the plate, or be soldered or otherwise confined thereto when the plate is of sheet metal. When the plate is of cast metal, the said clip and the clips *d* are cast with the same.

The operation is as follows: The spring C rests on the bottom of the journal-box and gently presses the parts B′ B′ of the felt against the lower side of the journal D, for the distribution of the oil, which is taken up by the bent portion of the part B from the bottom of the box, and passes by means of capillary attraction to the journal. Any excess of oil which collects on the latter falls down through the middle opening, *f*, onto the upper side of bend, and again is supplied to the journal, so as to keep up a constant and uniform lubrication. The said opening *f* not only serves to carry the excess of oil from the journal, but also for the escape of grit or dirt from the same. By passing the ends B′ B′ over the edges of the plate A through the recesses *b b* and confining them beneath the plate, as described, they are kept very securely in position for the distribution of the oil, and effectually keep the parts B′ B′ apart, to prevent

the filling up of the opening *f*, and under all circumstances prevent the danger of the contact of the journal with any part of the plate.

The felt B B′ B′, instead of being made in a single piece, as represented, may be made in two separate pieces, if desired.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The clips *d* on the lower side of the plate A, for forming a connection with the spring C and confining the extreme ends of the parts B′ B′ of the felt, substantially as above set forth.

2. The opening *f* between the parts B′ B′ of the felt, as and for the purpose set forth.

In testimony that the above is my invention I have hereunto set my hand and affixed my seal this 8th day of November, 1870.

ISAAC P. WENDELL. [L. S.]

Witnesses:

STEPHEN USTICK,

THOMAS J. BEWLEY.