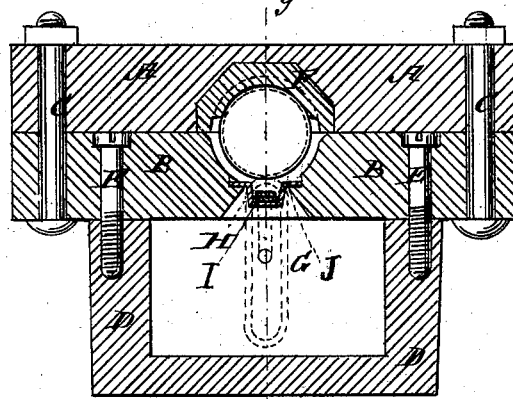


T. W. LILLARD.  
Car-Axle Box.

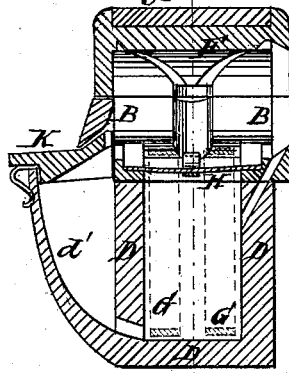
No. 198,032.

Patented Dec. 11, 1877.

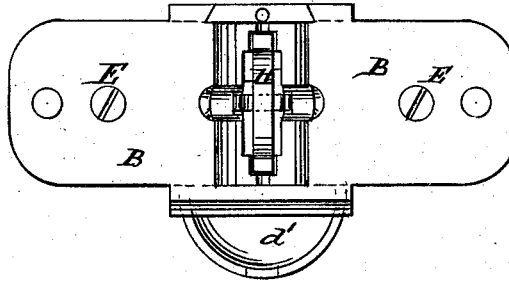
*Fig. 1.*



*Fig. 2.*



*Fig. 3.*



WITNESSES:

*E. Wolff.*  
*J. H. Scarborough.*

INVENTOR:

*T. W. Lillard.*

BY *Munroe*

ATTORNEYS.

# UNITED STATES PATENT OFFICE.

TRENTON W. LILLARD, OF LURAY, VIRGINIA, ASSIGNOR TO HIMSELF AND  
BENJAMIN F. GRAYSON, JR., OF SAME PLACE.

## IMPROVEMENT IN CAR-AXLE BOXES.

Specification forming part of Letters Patent No. **198,032**, dated December 11, 1877; application filed  
October 6, 1877.

*To all whom it may concern:*

Be it known that I, TRENTON W. LILLARD, of Luray, in the county of Page and State of Virginia, have invented a new and useful Improvement in Car-Axle Boxes, of which the following is a specification:

Figure 1 is a vertical section of my improved axle-box, taken through the line *x x*, Fig. 2. Fig. 2 is a vertical section of the same, taken through the line *y y*, Fig. 1. Fig. 3 is a top view of the lower half of the same.

Similar letters of reference indicate corresponding parts.

The object of this invention is to furnish improved axle-boxes which shall be so constructed as to keep the journals always lubricated, and at the same time remove any grit or dust that might cut or wear the journals, and which shall be simple in construction and convenient in use.

The invention will first be described in connection with the drawing, and then pointed out in the claims.

A represents the upper part or half of the axle-box, and B the lower part, which are secured to each other by bolts C. D is the oil-tank, which is secured to the lower part B by bolts E.

In the cavity or bearing of the upper part A is placed a lining, F, of anti-friction metal to receive the wear, and in the face of which are formed inclined grooves to receive the surplus oil from the journal, and carry it down into the grooves in the surface of the lower part B to the wick G, by which it and any grit or dust that may be upon the journal are carried down into the tank D and prevented from reaching the journal. The wick G is made in the form of

an endless band or bands, and passes over a bar, H, which is placed in a recess in the lower part B, and which is held up by a spring, I, placed beneath it, the middle part of which is supported by the drop-loop J, the ends of which are bent outward and rest in recesses in the said part B. The revolution of the journal against the endless wick G causes the latter to pass over the bar.

The spring I holds the wick up against the journal as it or the lining F wears, so that the said journal may always be properly lubricated.

Any grit or surplus oil from the end parts of the journal is caught by and passes down through grooves or passages into the tank D. Therefore the grit is caught before it gets to the journal.

The tank D is made with a projecting spout, *d'*, for convenience in pouring in oil, and the mouth of which is covered with a detachable cover, K.

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

1. A metallic journal-box lining, F, provided with inclined grooves, in combination with lower bearing B, having grooves that conduct the oil to the endless wick, for the purpose set forth.

2. The bearing B, provided with subjacent recess, in combination with a small bar, H, spring I, and loop J, to hold wick, as shown and described.

TRENTON WILLIAM LILLARD.

Witnesses:

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