(No Model.)

H. MILLHOLLAND.

CAR AXLE BOX.

No. 260,112. Patented June 27, 1882.

Fig. 1.

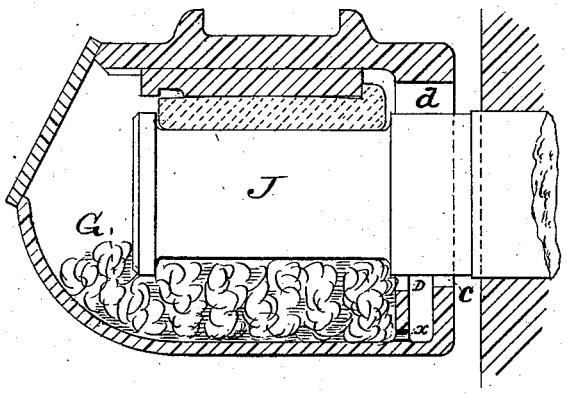


Fig. 2.

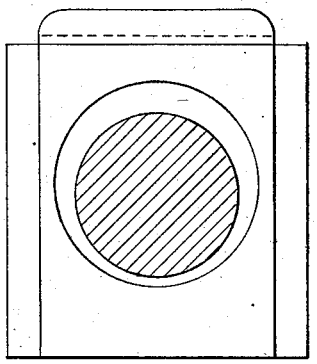


Fig. 3.

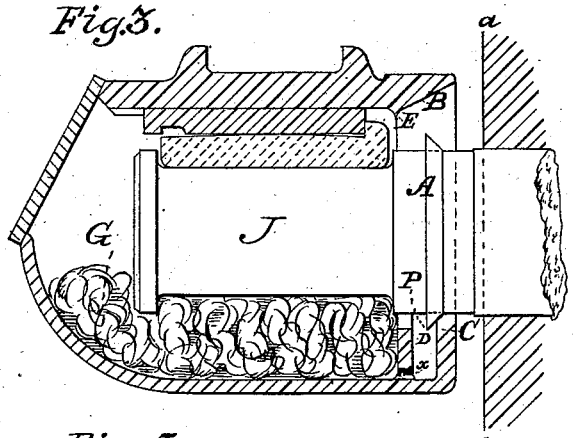


Fig. 4.

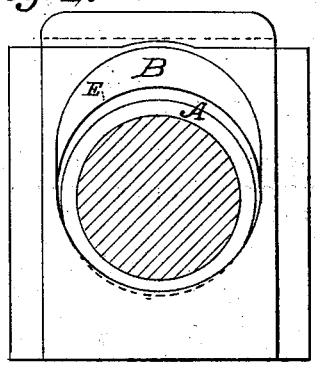


Fig. 5.

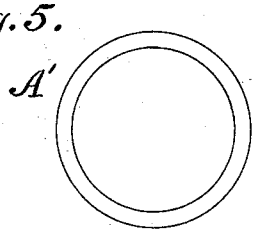
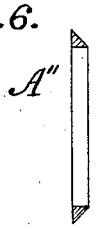


Fig. 6.



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Fred. D. Owen.

Inventor.
Henry Millholland

UNITED STATES PATENT OFFICE.

HENRY MILLHOLLAND, OF CUMBERLAND, MARYLAND.

CAR-AXLE BOX.

SPECIFICATION forming part of Letters Patent No. 260,112, dated June 27, 1882.

Application filed April 10, 1882. (No model.)

To all whom it may concern:

Be it known that I, HENRY MILLHOLLAND, a citizen of the United States, residing at Cumberland, in the county of Alleghany and State of Maryland, have invented a new and useful Improvement in Car-Axle Boxes, of which the following is a specification.

My invention relates to improvements in car-axle boxes which, by means of a ring secured to the axle and rotating therewith and certain improvements in the construction of the box, produce a constant condition of lubrication of the bearing; and the objects of my improvements are, first, to provide a continuously-lubricated bearing for the journal; second, to afford facilities for retaining the oil in the box, in order to prevent it from spreading over the car-wheels, thus, in addition to perfect lubrication, insuring a perfectly-conditioned wheel-tread for the operation of the brake-blocks; and, third, to reduce the consumption of lubricants to a minimum by the prevention of waste. I obtain these objects by devices illustrated in the accompanying drawings, in which—

Figure 1 is a vertical section of a car-journal box as ordinarily constructed and in common use; Fig. 2, a rear view of the same. Fig. 3 is a vertical section of a journal-box containing the improvements. Fig. 4 is a rear view of the same. Fig. 5 is a plan of the collar. Fig. 6 is the collar in section.

The operation of the device is as follows: First, the axle being in motion, the oil, finding its way to the ring A, is thrown from the periphery of the ring by centrifugal force and projected against the walls of the box, whence by gravitation it falls into the cavity D, returning through the hole *x* to the packing G, by which it is carried to the journal J; second, when the car is at rest the oil falls by gravitation from the collar A at the point P into the cavity D, and returns to the journal through the hole *x* and the packing G, as in the first case.

In order to return the drops of oil that may be deposited upon the surface B, this surface is inclined, as shown, enabling the oil to gravitate toward the point E, whence it drops upon the journal J. The inside surface of the wall C is made parallel to the back of the ring for the purpose of facilitating the raising of the box to remove the bearing for repairs, and also to afford room for the lateral travel of the ring consequent upon the "end-play" customarily given to the bearings.

I have been made aware since the completion of my invention, by an examination of the drawings in the Patent Office, that prior to my invention a collar has been used to assist in lubrication. I therefore do not claim such an application of the use of the collar, broadly; but

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

1. The combination, with the journal-box having the upper inwardly-inclined surface, B, terminating in point E, of the axle provided with the collar A, whereby the lubricant thrown upon the surface B is conducted down upon the journal, as specified.

2. The combination, with the journal-box having the inwardly-inclined surfaces B C, cavity D, and hole *x*, of the axle provided with collar A, whereby the lubricant is returned to the journal and box, as specified.

HENRY MILLHOLLAND.

Witnesses:

DE B. RANDOLPH KEIM,

D. P. COWL.