J. P. GARTON.

Car-Axle Box.

No. 162,051. Patented April 13, 1875.

Fig. 1.

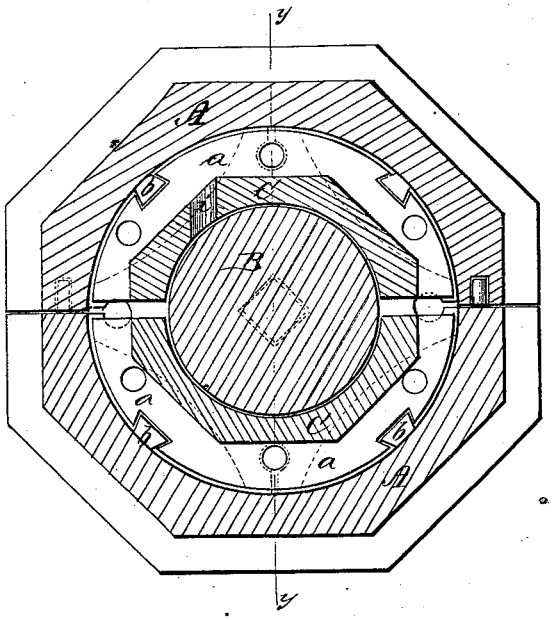
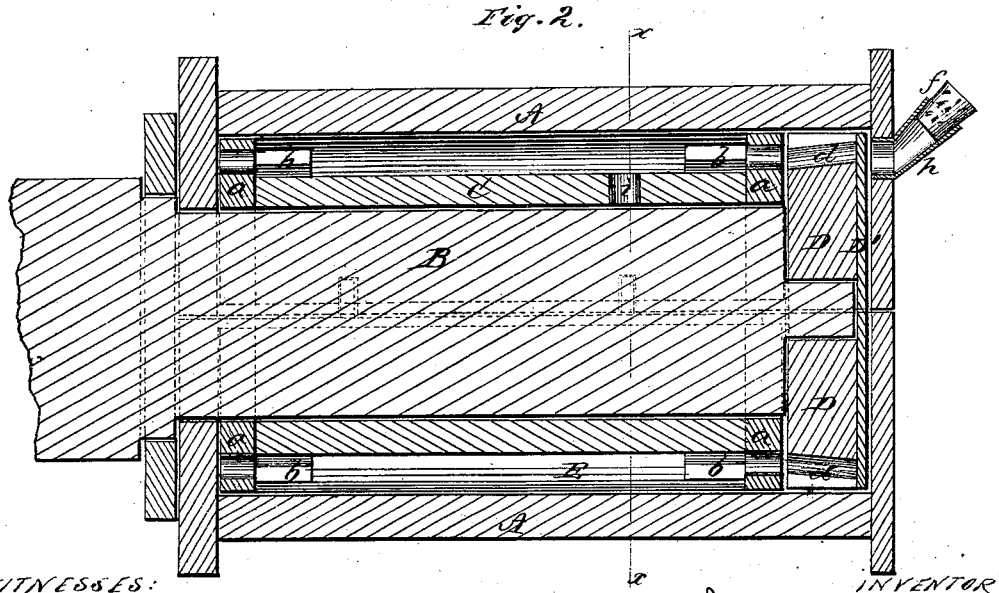


Fig. 2.



WITNESSES:

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UNITED STATES PATENT OFFICE.

JAMES P. GARTON, OF JERSEY CITY, NEW JERSEY.

IMPROVEMENT IN CAR-AXLE BOXES.

Specification forming part of Letters Patent No. **162,051**, dated April 13, 1875; application filed February 16, 1875.

To all whom it may concern:

Be it known that I, JAMES P. GARTON, of Jersey City, in the county of Hudson and State of New Jersey, have invented certain new and useful Improvements in Journals; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

The nature of my invention consists in the construction and arrangement of a lubricating car-axle journal-box, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, in which—

Figure 1 is a transverse vertical section through the line *x x*, Fig. 2; and Fig. 2 is a longitudinal vertical section through the line *y y*, Fig. 1.

A represents the journal-box, made in two pieces, suitably joined together, the box being closed at its outer end, and having an aperture in the center of its inner end for the passage of the car-axle journal B. In each half of the box A is placed a concave bearing-block, C, made to fit the journal, as shown in Fig. 1. The blocks C C are at their ends provided with perforated flanges *a a*, made to fit the interior of the journal-box A; and the blocks, including their flanges, are made shorter than the interior of the box, as shown in Fig. 2. On the inside of each half of the box project dovetailed lugs *b b*, and in the flanges *a a* are made corresponding slots.

The block is placed in its half of the box close up to the outer end, when the flanges *a* will rest therein; and by now moving the block to the inner end of the box the slots in the flanges will fit over the dovetailed lugs *b b*, thereby holding the blocks in their proper places.

The wear is, of course, on the upper block, and when this is worn so as to be useless it can easily be removed and another substituted.

The flanges *a a*, projecting beyond the blocks, form an oil-chamber, E, between them and the box, more particularly in the bottom of the box.

On the inner end of the journal B is secured a diamond-shaped plate, D, having concave sides, and in each corner is an inclined groove, *d*. On the outer side of this plate is a circular disk, D′. The plate D and disk D′ fit and work in the space between the blocks and the outer end of the box.

As the journal revolves the plate D carries oil up with it, which oil runs through the inclined grooves *d*, and finds its way through the perforations in the flange *a*, at the outer end of the upper block, and onto said block. The oil then passes through perforations *i* in said block onto the journal, lubricating the same; and, as the sides of the two blocks do not come together, the surplus oil is carried out between them by the revolution of the journal, and runs down into the chamber E below, and flowing through the perforations in the flange of the lower bearing-block is carried up again by the plate D.

In the outer end of the box, at the top, is an oil-inlet tube, *h*, closed by a plug, *f*.

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

1. The bearing-blocks C C, provided with perforated flanges *a a*, having dovetailed slots, in combination with the dovetailed lugs *b b*, formed on the inside of the journal-box, substantially as and for the purposes set forth.

2. The combination of the journal-box A with interior dovetailed lugs *b b*, the bearing-blocks C C, having perforated flanges *a a* with dovetailed grooves, the journal B, plate D with inclined grooves *d*, and the disk D′, all substantially as and for the purpose set forth.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

JAMES P. GARTON.

Witnesses:

C. H. WATSON,

HARRY A. GARTON.