G. WILLIAMS.

CAR-AXLE BOX.

No. 169,664 Patented Nov. 9, 1875.

Fig. 1.

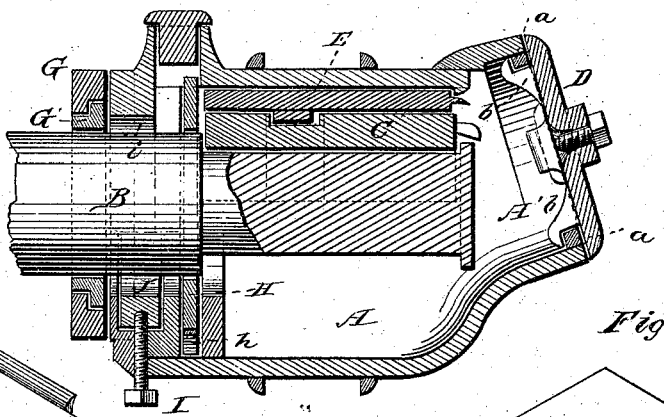


Fig. 6.

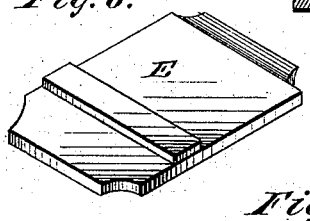


Fig. 5.

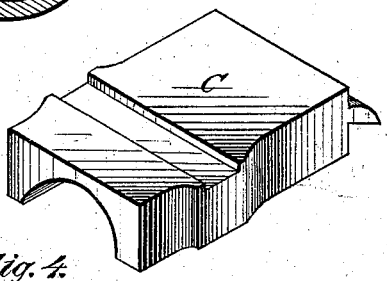


Fig. 2.

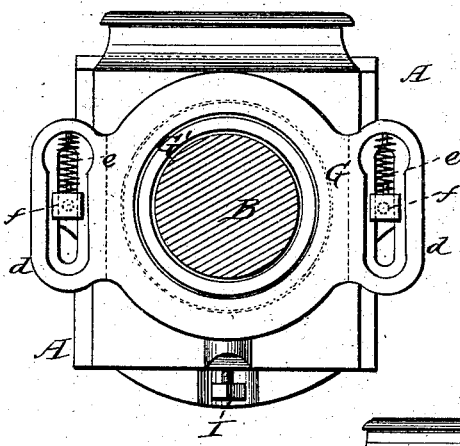


Fig. 4.

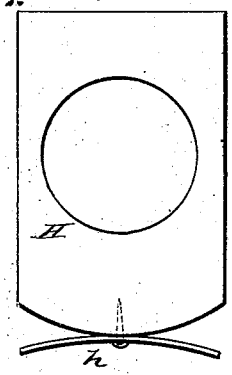


Fig. 7.

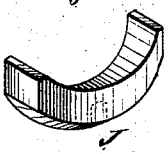
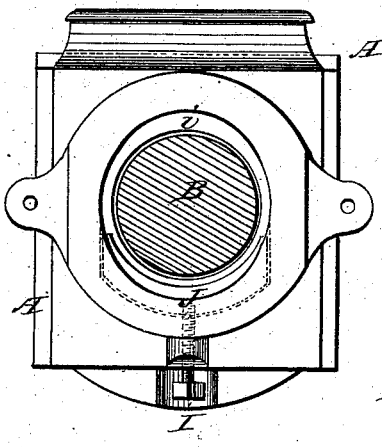


Fig. 3.



WITNESSES:

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UNITED STATES PATENT OFFICE.

GEORGE WILLIAMS, OF MYSTIC RIVER, ASSIGNOR OF ONE-HALF HIS RIGHT TO FREDERICK A. HOLMES, OF STONINGTON, CONNECTICUT.

IMPROVEMENT IN CAR-AXLE BOXES.

Specification forming part of Letters Patent No. **169,664**, dated November 9, 1875; application filed September 25, 1875.

To all whom it may concern:

Be it known that I, GEORGE WILLIAMS, of Mystic River, in the county of New London and State of Connecticut, have invented certain new and useful Improvements in Car Journal-Boxes; 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 car-axle journal-box, as will be hereinafter more fully set forth.

In the accompanying drawing, Figure 1 is a longitudinal vertical section of my car-axle journal-box. Fig. 2 is an end view of the same. Fig. 3 is also an end view with the outer collar removed. Figs. 4, 5, 6, and 7 are detached views of parts thereof.

A represents the box proper. B is the journal; C, the bearing-block for the same, and E the wedge-piece as generally used on top of the bearing-block. The outer end of the box A is curved substantially as shown in Fig. 1, and terminates in a round opening at, A′, on the interior of which, at the extreme edge, are formed four or more inclined or wedge-shaped ribs or flanges, *a a*. D is the cover to close the opening A′, said cover being provided on its inner side with four or more hook-shaped lugs, *b b*, to catch on the flanges *a a*, and thereby form a right or left screw for fastening the cover. On the inner end of the box A is a collar, G, provided with a circular inside collar, G′, fitting tight around the journal, the two collars overlapping each other, as shown in Fig. 1. The outer collar G is on each side provided with a vertically-slotted projection, *d*, fitting on the square head of a bolt, *f*, which is secured to the box, and the collar is held up by means of springs *e* inserted in the slots of the ears *d* above the bolts, as shown in Fig. 2. Within the box A near the inner end is a slide, H, fitting tight to the journal, forming with the slot in the box a tight-fitting oil-joint. Under the lower end of the slide H is a spring, *h*, to raise the slide and take the weight from the journal. Between the slide H and the collars G G′ there is left a space, *i*, on the journal, which is to be stuffed or packed with wool, asbestus, or other suitable material to keep the oil in the box in and the dust out. This packing is set up at the bottom by means of a follower, J, and set-screw I operating thereon.

The great trouble in car-axle journal-boxes now in use is, that by the lateral motion of the journal in the box, and the rising of the journal caused by the wearing of the seat, the dust works into the box and on the bearing, causing friction and heat, wearing the metal or seat and journal, and as the dust can get in, of course the oil escapes. This difficulty is entirely obviated by my invention.

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

The combination, with the box A and journal B, of the collar G with slotted ears *d d*, interior collar G′, square-headed screws *f*, and springs *e*, substantially as and for the purposes herein set forth.

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

GEORGE WILLIAMS.

Witnesses:

JOHN B. GRINNELL,

FRED. A. HOLMES.