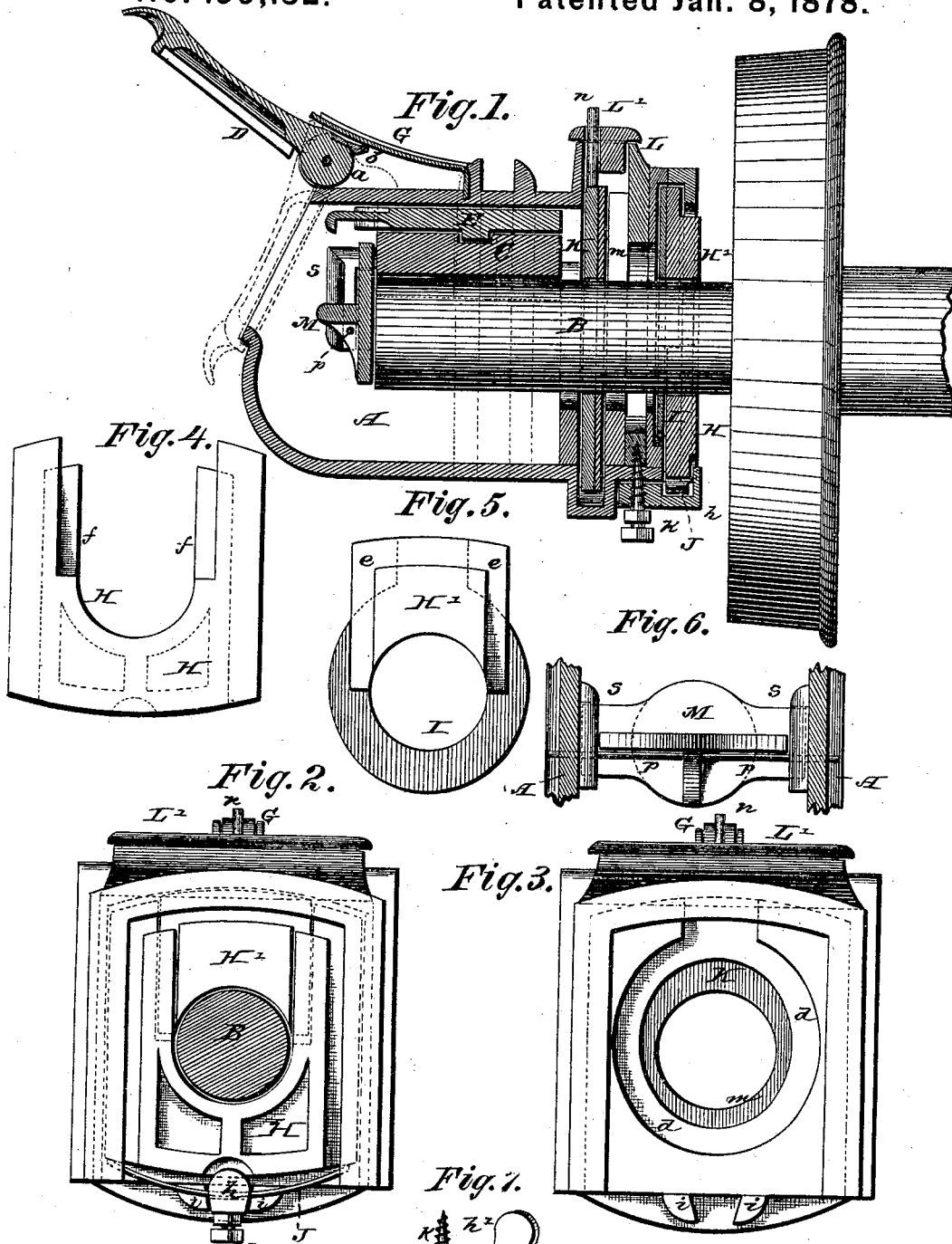


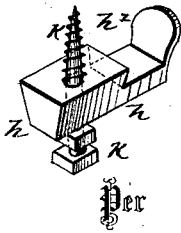
G. WILLIAMS.  
Car Axle-Box.

No. 199,132.

Patented Jan. 8, 1878.



Witnesses:  
*P. C. Dietrich*  
*Frank A. Duff*



Inventor:  
*George Williams*  
Per *C. H. Watson & Co* Attorneys.

# UNITED STATES PATENT OFFICE.

GEORGE WILLIAMS, OF GROTON, ASSIGNOR OF ONE-HALF HIS RIGHT TO  
HIRAM C. HOLMES, OF STONINGTON, CONNECTICUT.

## IMPROVEMENT IN CAR-AXLE BOXES.

Specification forming part of Letters Patent No. 199,132, dated January 8, 1878; application filed  
November 20, 1877.

*To all whom it may concern:*

Be it known that I, GEORGE WILLIAMS, of the town of Groton, in the county of New London and State of Connecticut, have invented certain new and useful Improvements in Car-Axle 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 appertains 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, and pointed out by the claims.

In the annexed drawing, to which reference is made, and which fully illustrates my invention, Figure 1 is a longitudinal section of my improved car-axle journal-box. Fig. 2 is an end view of the same. Fig. 3 is a similar view with the end collar removed. Figs. 4, 5, 6, and 7 are detailed views of parts thereof.

A represents the box proper. B is the journal; C, the brass; and E, the usual wedge piece on top of the brass. The outer end of the box A is curved, substantially as shown, and provided with a hinged door or cover, D. This door or cover is hinged to lugs *a a* on top of the box, and a spring, G, is so arranged on top of the box as to bear upon a projection, *b*, at the inner end of the cover, to hold the cover either open or closed.

The inner end of the box is formed at its sides and top with suitable grooves to receive a collar surrounding the journal B, said collar being made in two parts, H and H'. The upper part, H', has a leather washer, I, secured to its under side, which washer lies in a recess, *d*, formed in the end of the box around the oval hole made therein for the passage of the journal. The upper and side edges of the part H' are rabbeted, as shown at *e* in Fig. 5, and the lower part H of the collar is correspondingly cut out, as seen at *f* in Fig. 4, to slide over said rabbeted side edges.

The collar thus constructed fits snugly

around the journal B, and the lower part H is held up in place by means of a spring, J, below the same. This spring rests upon a dove-tailed slide, *h*, moving or placed in corresponding guides or flanges *i i* on the under side of the box. The slide *h* is so arranged in these guides that it can be pressed upward therein by means of a screw, *k*, whereby the tension of said spring can be easily regulated. The slide *h* is at its outer end formed with a recess, *h'*, as shown in Fig. 7, for the spring J to rest in.

Within the box A is a slide, K, provided with a leather lining, *m*, and a hole through both for the passage of the journal, the slide and lining fitting closely around the same, and moving up and down with it. This slide is inserted through an opening at L in the top of the box, said opening being closed by a cover, L'. A rod, *n*, projects from the slide up through the cover to guide the same, and prevent its binding in the box.

At the end of the journal B, within the box, is a cross-bar, M, which is held by a rod, *p*, passing through it and through the sides of the box, and the ends of said slide bear against flanges *s s* in the sides of the box. This cross-bar forms a stop for the lateral or endwise movement of the journal.

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

1. The combination of the collar H H' with washer I, spring J, slide *h*, with recess *h'*, guides *i*, and screw *k*, all constructed substantially as and for the purposes herein set forth.

2. The combination of the slide K with lining *m* and guide-pin *n*, and the perforated cover L', for the purposes herein set forth.

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

GEORGE WILLIAMS.

Witnesses:

DANIEL C. LEAHY,  
JOHN B. GRINNELL.