

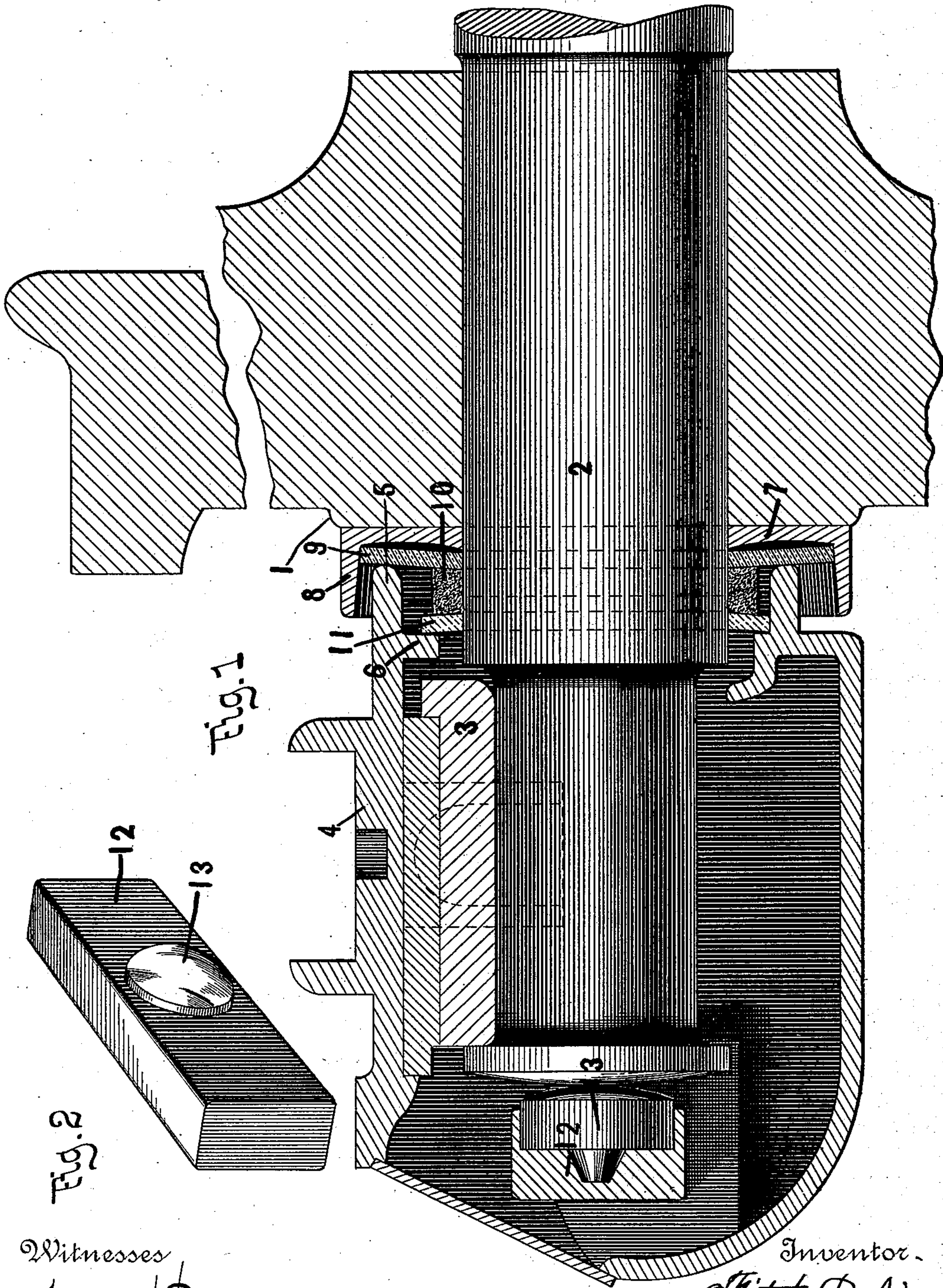
(No Model.)

F. D. ADAMS.

CAR AXLE BOX.

No. 377,418.

Patented Feb. 7, 1888.



Witnesses

Frank H. Pierpont  
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Inventor.

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By His Attorneys

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# UNITED STATES PATENT OFFICE.

FITCH D. ADAMS, OF BOSTON, MASSACHUSETTS.

## CAR-AXLE BOX.

SPECIFICATION forming part of Letters Patent No. 377,418, dated February 7, 1888.

Application filed August 30, 1887. Serial No. 248,309. (No model.)

*To all whom it may concern:*

Be it known that I, FITCH D. ADAMS, a citizen of the United States, residing in that part of Boston called Allston, in the county of Suffolk and State of Massachusetts, have invented new and useful Improvements in Axle-Boxes for Car-Wheels, which improvements are set forth in the following specification.

This invention consists in certain specific peculiarities of construction, fully described hereinafter, by means of which the entrance of dust and dirt and the escape of oil at the back of the box adjacent to the hub of the car-wheel are more effectually prevented than have before been done without requiring any change whatever in the axle or journal bearing.

In the drawings, Figure 1 represents a sectional view of my improved axle box; and Fig. 2, a perspective view of the chilled-iron stop-block, which is adapted to receive the end-thrust of the axle.

To enable others skilled in the art to make my improved axle, I will proceed to fully describe the construction of the same.

1 represents the hub of the car-wheel; 2, the axle of the same, and 3 the usual bearing-brass, as shown.

4 represents the axle-box, which is provided at its inner end with a neck, 5, and the internal flange-surface, 6, as shown.

7 represents a cast-iron ring surrounding the axle, the inner face of which is adjacent to the outer face of the hub of the wheel.

8 represents a flange or collar, which projects inward over the neck 5 of the axle-box and forms a dirt-shield.

9 represents a ring, preferably made of wood fiber, which is located upon the axle adjacent to the outer face of the cast-iron ring 7, as shown. The outer face of the wood-fiber ring 9, it will be observed, is adapted to bear against the inner edge of the axle-box neck 5.

10 represents a ring of felt, which is located on the axle next to the outer face of the wood-fiber ring 9, as shown.

11 represents a leather guard of the usual construction, the outer surface of which is adapted to bear against the inner face of the flange-surface 6, as shown.

12, Figs. 1 and 2, represents a chilled-iron stop-block held on each side of the box near its front end by proper recesses, which block is provided with a central projection, 13, which is adapted to take the endwise-thrust of the axle.

The neck of the axle-box in this construction is kept in contact with the wood-fiber ring 9 and the movable cast-iron ring 7 by means of the bearing-brass and wedge; but undue pressure is prevented upon these bearing parts by the chilled-iron stop-block 12.

The cast-iron ring 7 and the wood-fiber ring 9 revolve with the hub of the wheel.

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

1. In combination with the hub of the wheel, the axle-box having the neck 5, the ring of felt, the wood-fiber ring 9, and the cast-iron ring 7 loose on the wheel.

2. In combination with the axle box having the neck 5, the stop-block 12, and the cast-iron ring 7, as described.

3. In combination with the car-wheel hub and the movable plate 7, the axle box with the neck 5, the intermediate rings, and the stop-block 12, as described.

This specification signed and witnessed this 2d day of August, 1887.

FITCH D. ADAMS.

Witnesses:

JNO. D. LEIB,  
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