I. R. TITUS.
Car Axle Box.

No. 201,851. Patented March 26, 1878.

Fig. 1.

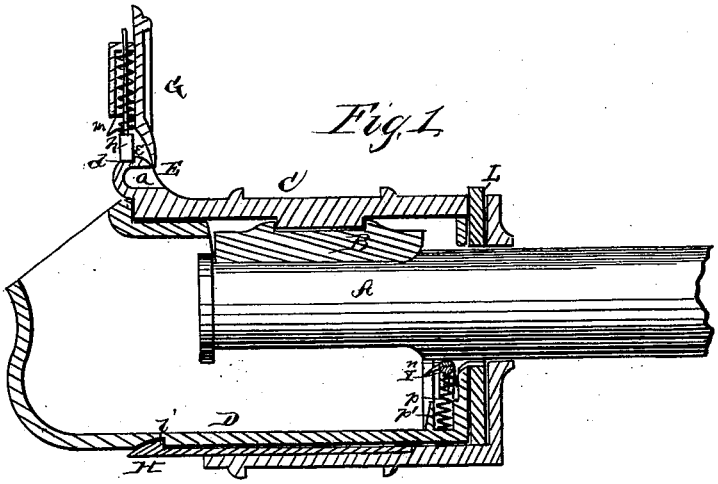

Fig. 2.

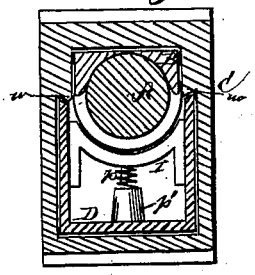

Fig. 6.

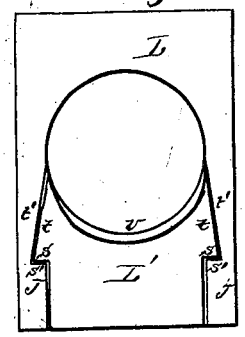

Fig. 5.

Fig. 3.

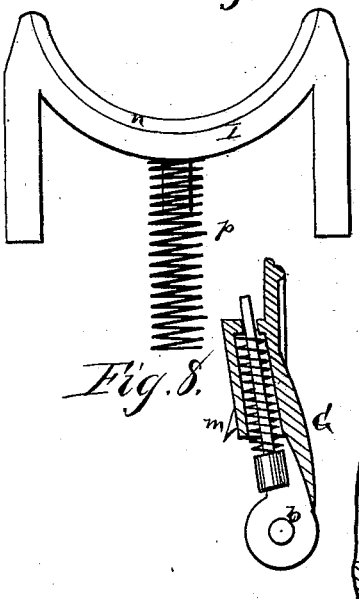

Fig. 4.

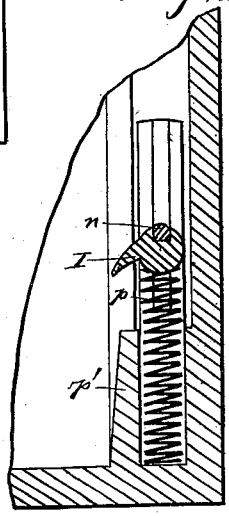

Fig. 7.

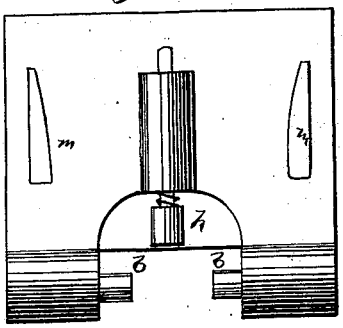

Fig. 8.

Witnesses:
H. C. McArthur,
C. L. Evert.

Inventor:
Ivor. R. Titus.
per
T. H. Alexander & Elliott.
Attorneys.

UNITED STATES PATENT OFFICE.

IVOR R. TITUS, OF HUNTINGTON, WEST VIRGINIA.

IMPROVEMENT IN CAR-AXLE BOXES.

Specification forming part of Letters Patent No. **201,851**, dated March 26, 1878; application filed December 6, 1877.

To all whom it may concern:

Be it known that I, IVOR R. TITUS, of Huntington, in the county of Cabell and State of West Virginia, have invented certain new and useful Improvements in Car-Axle Journal-Boxes; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form part of this specification.

The nature of my invention consists in the construction and arrangement of a car-axle journal-box and lubricator, 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 drawings, in which—

Figure 1 is a central vertical section; Fig. 2, a vertical cross-section; and Figs. 3, 4, 5, 6, 7, and 8 are detail views of my improved journal-box.

A represents the car-axle journal, and B is the ordinary brass on top thereof. The journal-box proper is made in two parts, C and D, constructed as follows: The outer part or shell C is constructed so as to bolt to the side bars of the truck, or to slide in the ordinary pedestal, as the case may be; and it is formed similar to others in common use, except that the front of the box is open and the ear or lug E on top is recessed at each side, as shown at *a*, to receive gudgeons *b* on the lid G. This lug E has also an indenture, *d*, on the upper side, with a shoulder, *e*, at the back, which prevents the spring-bolt *h* on the inner side of the lid from passing too far back, which would allow the lid to go so far back as to become detached; but this device does in no wise interfere with putting the lid on. The indenture *d*, with the spring-bolt *h* resting therein, also serves to hold the lid open while the box is being oiled.

The inner part D of the box forms a receptacle for holding oil and packing, or such other lubricant as may be used, and is held in place and prevented from loosening or working out by means of a spring, H, attached to the outer shell C, and springing into a recess, *i*, in the box D, and also by means of hooked projections *m m* on the under side of the box-lid G. When this lid is closed the projections *m* catch under the upper part of the box D, and prevent the box from getting lost should the spring H become broken or out of order.

Within the box D, and situated at the rear end, is a small semicircular casting, I, either of brass or other metal, which is made hollow or cored out at the upper side, and filled with waste, leather, or other material, *n*. This casting is held up close to the journal by a spiral spring, *p*, fitting in a tube, *p'*, as shown, said spring causing the semicircular casting to follow the journal up as the brass B wears away, thus effectually preventing the oil or grease from flowing past it and losing out at the back part of the box.

Dust is prevented from getting into the box by a back liner, made of any suitable material, in two parts, L and L'. The part L' below the journal has its sides inclined, as shown at *t t*, and below said inclines are offsets *s s'*. The part L below the journal has side arms J J, which are, on their inner edges, formed with inclines *t'* and offsets *s'*, corresponding with those on the part L' and interlocking therewith.

By this construction the entire back liner will rise with the journal as the brass wears away, and thus keep the opening at the back end of the box closed, and the liner can be put in place without removing the entire box, as is now the case with ordinary boxes.

The lower portion L' of the liner has a projection, *v*, of leather or other suitable material, which laps over and into the back end of the box D, so that any oil or grease that may drop on it will have a tendency to run back into the box again.

The back end of the box D is also made so as to fit snugly to the journal, thus reducing greatly the opening between the lower side of the journal and the back end of the box; also allowing the oil or grease to come in contact with the journal without overflowing at the back end. The front end of the box D is also made much higher than on ordinary boxes. By this arrangement the grease or oil will not flow or be forced out at the front end of the box.

The outer shell C is provided with interior ribs *w w*, which project over the upper edge of the box D, and, fitting closely to it, prevent the oil from losing out when it splashes against the sides and upper part of the outer shell.

This box can be made to suit any ordinary brass now in use, and can be made to suit all kinds of pedestals, arch-bars, &c.

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

1. The combination of the outer shell C, the removable box D, with recess *i*, and the spring-catch H, for the purposes herein set forth.

2. The projections *m m* on the inner side of the lid G, in combination with the shell C and removable box D, for the purposes herein set forth.

3. The back liner constructed in two parts, L and L′, the part L being provided with side arms J, having inclines *t′* and offsets *s′*, and the part L′ formed with corresponding inclines *t* and offsets *s*, substantially as and for the purposes herein set forth.

4. The combination, with the back liner, constructed in two parts, L L′, as described, of the projection *v*, attached to the lower section L′, and extending inward under the journal, for the purposes set forth.

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

IVOR R. TITUS.

Witnesses:
T. L. CHAPMAN,
F. F. BADGLEY.