G. S. WINSLOW.

FASTENING DEVICE FOR AXLE-BOX COVERS.

No. 192,667. Patented July 3, 1877.

Fig. 1.

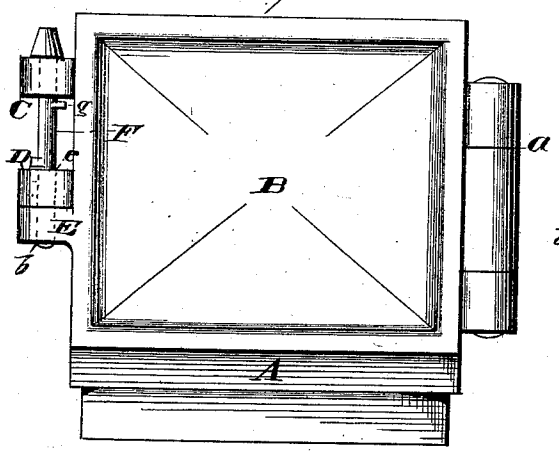


Fig. 2.

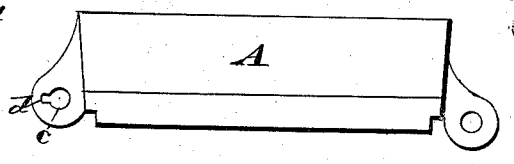
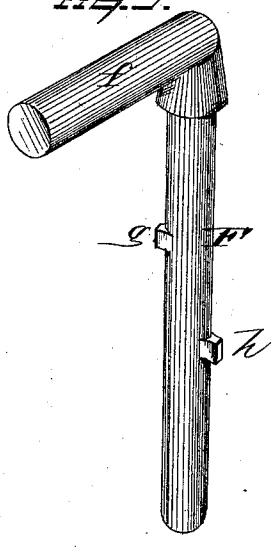


Fig. 3.



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UNITED STATES PATENT OFFICE.

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IMPROVEMENT IN FASTENING DEVICES FOR AXLE-BOX COVERS.

Specification forming part of Letters Patent No. **192,667**, dated July 3, 1877; application filed May 16, 1877.

To all whom it may concern:

Be it known that I, GEORGE S. WINSLOW, of Cedar Rapids, in the county of Linn and State of Iowa, have invented certain new and useful Improvements in Fastening Devices for Car-Axle-Box Covers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to an improved fastening device for car axle-box covers.

Heretofore many serious defects have been found to exist in the various patented fastening devices for securing car-axle-box covers in place. They are ordinarily secured in place by means of bolts with their nuts turned down against the outer surface of the cover. In boxes thus constructed the nuts often become loosened and lost, owing to the collection of oil about the screw-threads of the nut, which operates to destroy the frictional contact between the bolt and nut, and allow the latter to work loose. Again, it necessitates a great loss of valuable time to inspect all the axle-boxes of a train, as every box requires the removal of two nuts in order that access may be had thereto, and hence many hot boxes result from the lack of suitable fastening devices adapted to be quickly unlocked for the ready inspection of the axle-boxes.

The object of my invention is to obviate the defects above noted, and provide a fastening device for car-axle-box covers, which shall be light, simple, and economical in construction, and adapted to be manipulated in an easy and ready manner, so that, while the cover may be securely locked against accidental displacement, it is adapted to be quickly opened to allow of the ready inspection of the interior of the axle-box.

In the drawings, Figure 1 represents a front elevation of a car-axle box provided with my improved fastening device. Fig. 2 represents a plan view of the front portion of the box, and Fig. 3 is an enlarged view of the locking-pin.

A represents a car-axle box of any desired form and construction, having the cover B hinged thereto at *a*. The opposite side of the box or housing A is provided with two lugs, C D, arranged in line one above the other, the lower lug D having a hole, *b*, formed therein, while the upper lug C is provided with an opening, *c*, and a groove, *d*, of rectangular or any other desired shape, leading to the opening *c*. The cover B is constructed with a single lug or projection, E, which fits against the lower side of the lower lug D of the axle-box when the door is in a closed position. The projection E of the cover is provided with a hole, *e*, which registers with the openings in the lugs on the box when the door is closed.

F represents the locking-pin, and is preferably made of galvanized malleable iron, and of sufficient length to extend through the lugs C D on the housing A, and lug or projection E on the cover. The upper end of the pin has a handle, *f*, formed thereon, and at right angles to the length or body of the same, while the body of the pin is provided with two nibs or lugs, *g h*, which are located on opposite sides of the pin, and a distance apart a little in excess of the thickness of the upper lug C on the housing. The pin is inserted and the cover locked as follows: The body of the pin is placed in the opening *c* of the upper lug C, and the pin turned therein until the lower nib or lug *h* on the pin registers with the groove *d*, when the pin drops through the opening, and falls until the upper nib or lug *g* of the pin strikes the upper surface of lug C, when the pin must be given a half-turn to allow the upper nib or lug *g* to register with the groove *d*, and when this is effected the pin drops through until the head of the pin rests on the upper surface of lug C. When the pin is in the position described the lower portion of the same extends through the openings in lugs D and E, and thus securely locks the cover to the box or housing A. The head or handle of the pin is then given a quarter-turn, in order to throw the upper nib or lug *g* out of line with groove *d*, when the pin is prevented from any vertical movement or accidental displacement. As the covers are constructed on an inclination toward the trucks, the weight of the handle will serve to keep the pin from turning and jumping out of its locked position.

When it is desired to gain access to the box to inspect or lubricate the bearings the pin is given a quarter-turn to bring the nib or projection *g* in line with groove *d*, and then, by raising the pin until the nib rests on the upper surface of the lug C, the door can be readily opened, while the pin is locked against complete displacement.

Axle-box covers provided with my improved fastening device may be readily locked and unlocked without the necessity of using hammers or wrenches, or without danger of losing the locking-pin, and the cover can be quickly opened for inspection, and closed tightly to prevent any escape of the waste or lubricant contained in the box.

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

1. An axle-box housing provided with perforated lugs, the upper one having a groove therein, in combination with the cover and a locking-pin, the latter constructed with nibs or lugs formed on opposite sides thereof, substantially as and for the purpose set forth.

2. The combination, with an axle-box housing, A, provided with perforated lugs C D and cover B, constructed with projection or lug E, of the locking-pin F, having nibs or lugs *g h* formed on opposite sides thereof, substantially as and for the purpose set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 7th day of May, 1877.

GEORGE S. WINSLOW.

Witnesses:
JOHN C. FOX,
R. W. BUSHNELL.