

M. ELLIS & P. M. NELSON.

CAR AXLE-BOX COVER.

No. 187,461.

Patented Feb. 20, 1877.

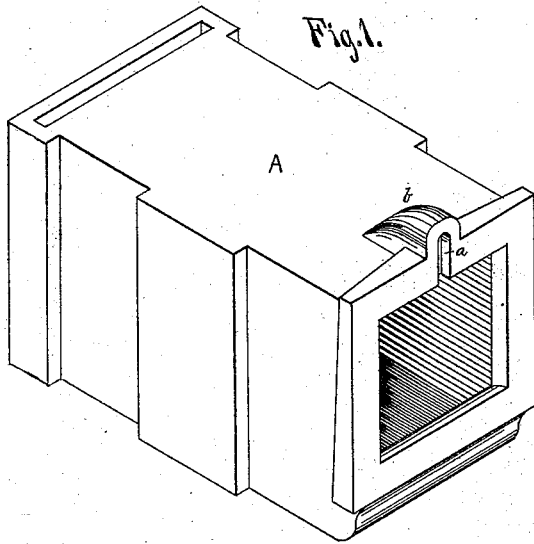


Fig. 1.

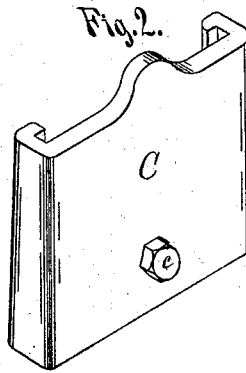


Fig. 2.

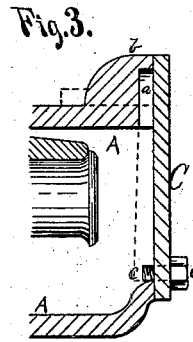


Fig. 3.

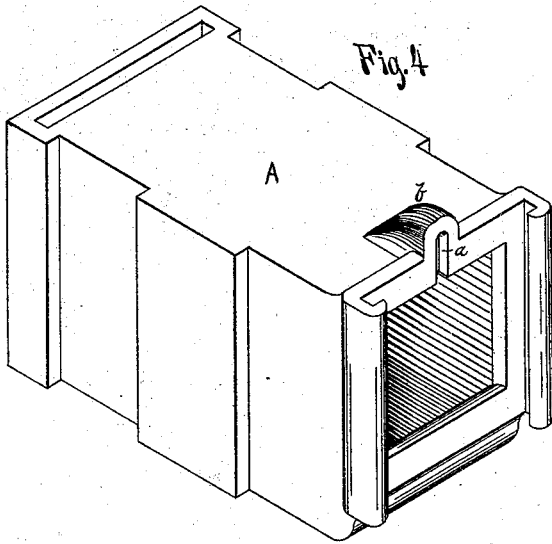


Fig. 4.

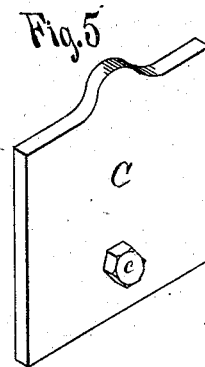


Fig. 5.

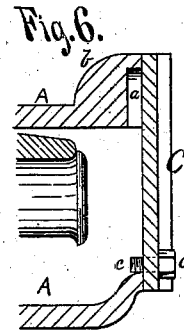


Fig. 6.

*John T. Holsted*  
*E. H. Woodward* } Witnesses.

*Mathew Ellis,*  
*Peter M. Nelson,*

Inventors By  
*Louis Feiser, & Co., Attys.*

# UNITED STATES PATENT OFFICE.

MATHEW ELLIS AND PETER M. NELSON, OF HUDSON, WISCONSIN.

## IMPROVEMENT IN CAR-AXLE-BOX COVER.

Specification forming part of Letters Patent No. **187,461**, dated February 20, 1877; application filed November 23, 1876.

*To all whom it may concern:*

Be it known that we, MATHEW ELLIS and PETER M. NELSON, both of Hudson, in the county of St. Croix and State of Wisconsin, have invented certain new and useful Improvements in Axle-Box Covers to Railroad-Cars, which improvement is fully set forth in the following specification, reference being had to the accompanying drawings.

This invention relates to the caps or covers to axle-boxes of railroad-cars; and consists in a pin or bolt projecting through the cap or cover, and acting in conjunction with a recess in a lug or projection on the top of the box, to prevent the cap from becoming detached and lost while the cars are in motion, or when the axle is being repaired and oiled, as hereinafter described.

In the drawings, Figure 1 is a perspective view of one form of axle-box; Fig. 2, a perspective view of the cap for the same; and Fig. 3, a sectional view of the box, showing our improvement attached thereto. Figs. 4, 5, and 6 are similar views, of another form of axle-box, with the same device attached.

Two forms of axle-boxes are shown. In Fig. 1 the slides are cast on the box, and the ways or guides on the cap, while in Fig. 4 the slides are cast on the cap, and the ways or guides on the box; but the operation of our improvement is the same on both.

Our invention consists in a lug or projection, *b*, on top of the axle-box *A*, and having a recess or cavity, *a*, formed in it, and a bolt or pin, *c*, tapped through the cap *C* near its lower edge, which projects through into the interior of the box *A*, and thus forms a stop or catch, which, when the cap is raised, enters the recess *a*, and prevents the cap from being entirely removed by striking against the top of the lug *b*.

By placing the lug *b* above the top of the box the cap may be raised up until the opening in the front of the box will be entirely uncovered, so that no obstruction will be offered to the insertion of oil, waste, new brasses, &c., and the interior rendered as accessible as it would be were the whole cap removed.

This is the main object of placing the lug above the top of the box; but another im-

portant advantage is that the recess is entirely removed above the danger of becoming clogged with oil, waste, &c. This it will be observed would be a great objection, as the cover could not be raised sufficiently high were the recess clogged up.

We are acquainted with a patent granted to J. B. Sutherland, May 16, 1871, in which a wrought-iron or steel lug is screwed or bolted into a cavity in the top of the box, and acts in a recess or slot in the inside of the cap, but this is open to the objection before spoken of—viz., the danger of clogging—as the recess in the cap coming down near the bottom frequently gathers oil and waste in it, and becomes inoperative.

Another objection to it is its peculiar arrangement, whereby the whole of the lug with its accompanying bolt has to be removed in order to allow the cap to be taken off, while in ours it is only necessary to unscrew the bolt *c* until its inner point is flush with the inner surface of the cap, when the cap may be easily lifted out.

In our device it is not necessary under any circumstances to entirely remove the bolt, while in Sutherland's the reverse is the case, thus rendering it liable to become broken and disarranged.

Our invention can be easily applied to old boxes by simply cutting a groove in the top front edge of the box, and bolting the recessed lug over it, and tapping the bolt *c* through the cap.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. The lug *b*, having the recess or cavity *a*, in combination with the axle-box *A*, arranged and operating as hereinbefore set forth.

2. The combination and arrangement of the axle-box cover *C*, and pin or bolt *c*, arranged and operating as hereinbefore set forth.

In testimony whereof we have hereunto set our hands in the presence of two subscribing witnesses.

MATHEW ELLIS.  
PETER M. NELSON.

Witnesses:

C. N. WOODWARD,  
JOHN T. HALSTED.