(No Model.) 2 Sheets—Sheet 1.

# C. M. WINN.

## CAR COUPLING.

No. 489,427. Patented Jan. 3, 1893.

Fig. 1.

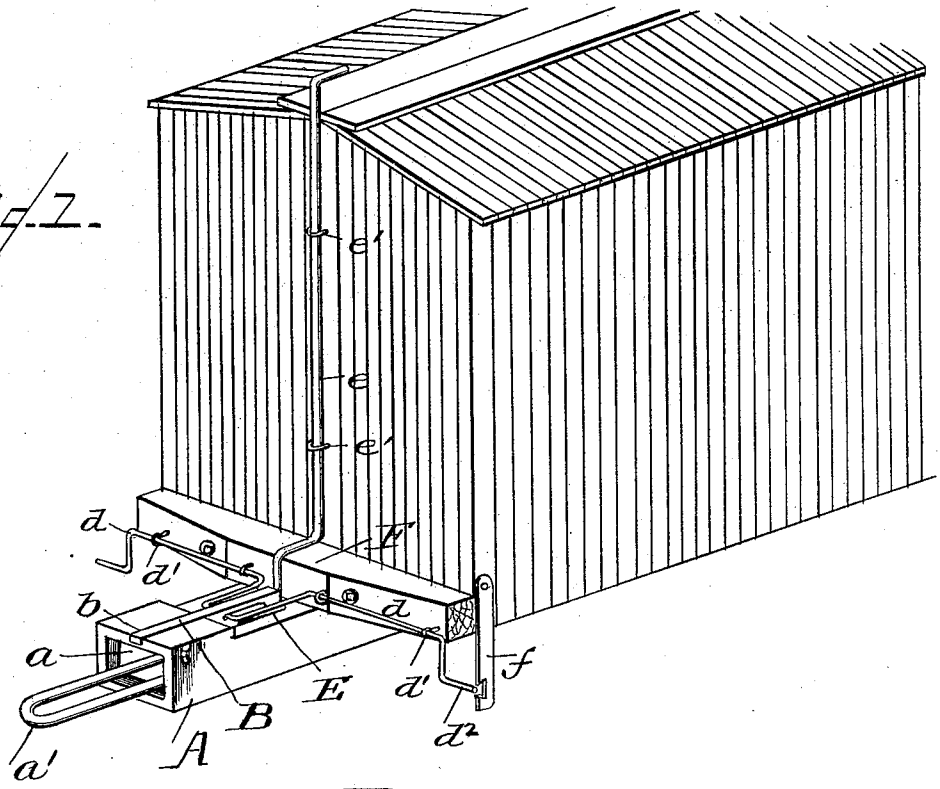
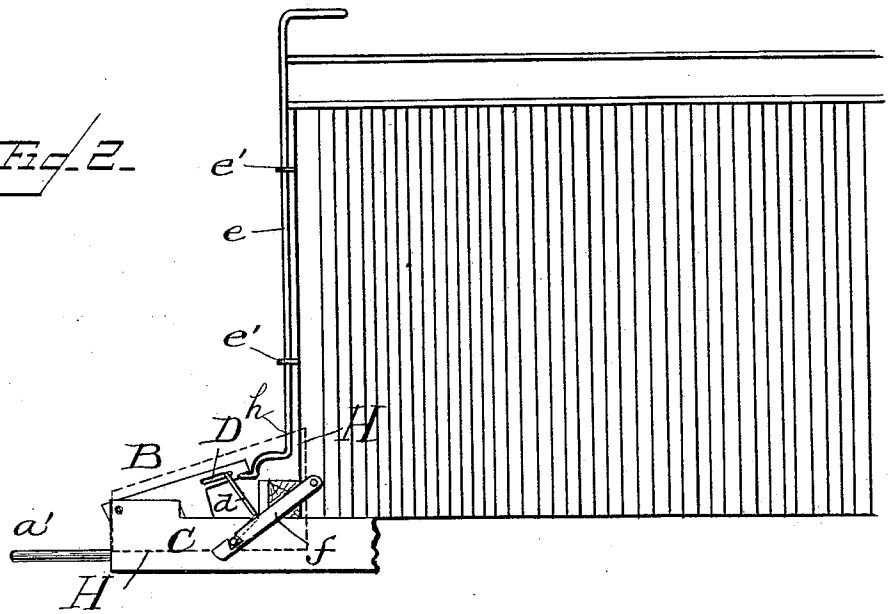



Fig. 2.




WITNESSES

F. L. Ourand.

M. E. Lansdale.

INVENTOR

C. M. Winn

By John S. Duffield Attorney

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

(No Model.) 2 Sheets—Sheet 2.

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## CAR COUPLING.

No. 489,427. Patented Jan. 3, 1893.

Fig. 3.

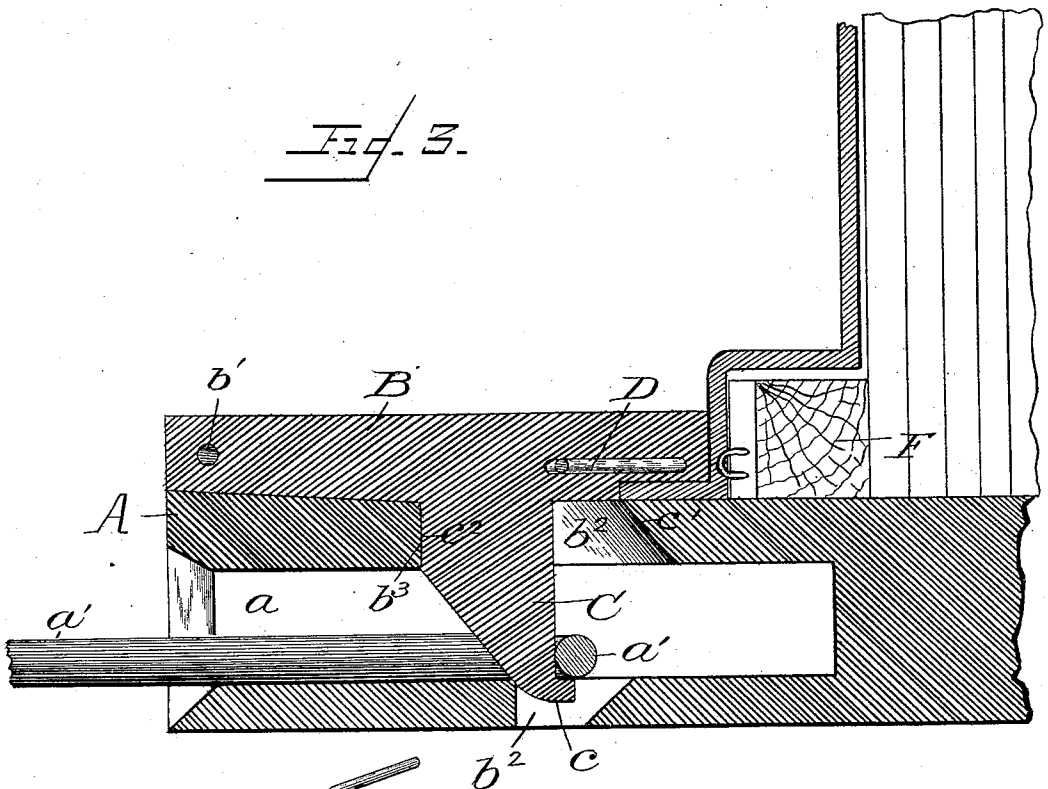



Fig. 4.

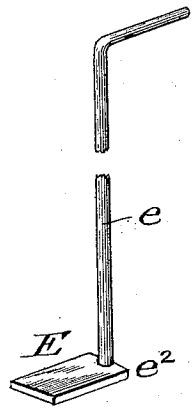
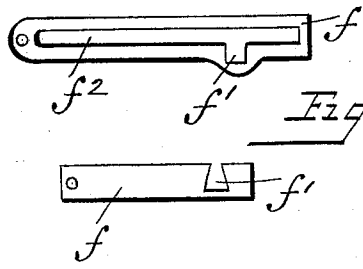



Fig. 5.

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M. E. Lansdale.

INVENTOR
C. M. Winn
By John S. Duffié Attorney

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

# UNITED STATES PATENT OFFICE.

COLUMBUS M. WINN, OF LUNENBURG, VIRGINIA, ASSIGNOR OF ONE-HALF TO N. H. NEBLETT.

## CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 489,427, dated January 3, 1893.

Application filed August 5, 1892. Serial No. 442,296. (No model.)

*To all whom it may concern:*

Be it known that I, COLUMBUS M. WINN, a citizen of the United States, residing at Oral Oaks, Lunenburg, in the county of Lunenburg and State of Virginia, have invented certain new and useful Improvements in Car-Couplers; and I do 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 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.

My invention is a car coupler and consists of a drawhead provided with a catch having its hinged end at the front, its free end operated by a U-shaped lever and a plate and rod.

In the accompanying drawings: Figure 1, is a perspective view of my invention attached to the end of a car, the hook being down. Fig. 2, is a side view of my invention with the hook raised. Fig. 3, is a longitudinal sectional view of my invention. Figs. 4 and 5 are detail views.

My invention is described as follows: A, represents the drawhead. B, a bar having an integral hook, C, with a point at its lower end extending forward. The throat, *a*, of the said drawhead is large at its mouth to readily receive the link, *a'*, but narrows as it recedes so that the slot in the link can pass only under the point, *c*, of the hook, C, and must be caught every time by said hook after it passes under the same. The said hook is integral with the bar B, and though not very thick is quite wide and consequently will stand a great draft. The said bar, B, fits in a groove, *b*, made in the upper face of the drawhead and is pivoted at the front end of said drawhead by a bolt *b'*. The hook, C, passes down into the throat through a slot, $b^2$, which has a front abutment, $b^3$, and when the said hook is down its shoulder, $c^2$, rests squarely against said abutment, $b^3$, consequently, as will be seen the hook does not depend upon any bolt to be kept in place, but is kept in place by its peculiar adjustment and position in the slot, $b^2$. The said drawhead has a slot, $b^4$, in its lower part immediately under the slot, $b^2$, and the point, *c*, of the hook rests in said slot when the hook is down, the upper face of said point being flush or not quite flush with the lower face of the throat, *a*, so that the link, *a'*, rests immediately over said point and should any jar raise said point (which, however, is not apt to occur) the link will be raised by said point and thus kept from being withdrawn while the train is in motion. The opening, $c^4$, goes all the way through the lower part of the drawhead so that dust and other substances will not accumulate therein and interfere with the point, *c*. The rear end of the bar, B, is provided with a horizontal slot, D, and in said slot works a U-shaped lever, *d*, secured to the front cross beam of the coach by eyes, *d'*, or other suitable means. Under the rear end of said bar, B, works the foot, E, of the lifting rod, *e*, which runs up the end of the coach and is secured in place by eyes, *e'*, or other suitable means. The heel, $e^2$, of the foot, E, is straight and flush with the rear part of said rod, and rests against the front face of the cross beam, F, of the coach so that said foot will be constantly kept standing to the front and consequently cannot swing out from under the end of said beam. To the sides of the coach are pivoted braces, *f*, having notches, *f'*.

The operation of my invention is as follows: The link, *a'*, enters the mouth of the drawhead, strikes the inclined plane of the hook, C, throws it up and passes on. The hook drops immediately into the link and rests over the point, *c*, and cannot be withdrawn until "slack" is had between the coaches. To uncouple the car the operator stands on either side of the coach and presses the handle of the U-shaped lever, *d*, forward. This throws the U-bend up which carries with it the beam, B, and hook, C, until the point, *c*, strikes against the wall, *c'*, of the slot, $b^2$, or if the operator is on top of the car he uncouples by raising the rod, *e*, which accomplishes the same thing. Sometimes it is desirable that the hook, C, remains up as it may not be convenient to remove the coach immediately after uncoupling the car, in which case the lever is held up by means of the braces, *f*, as shown in Fig. 2. These braces may be made

with a simple notch or may have a slot, $f^2$, and notch as shown in Fig. 5. When the brace with the slot is used the slot is put over the handle, $d^2$, and a spool on the outer end of the handle to keep the brace from coming off.

It happens sometimes, as I have understood, in very cold weather that the parts of a car coupler become caked with ice and consequently do not operate. In order to prevent such misfortune I cover the principal parts of my coupler by a coping represented by the dotted lines, H, having a perforation at the point *h*, for the rod, *e*, to work through. The said rod fits the perforation so neatly that water cannot pass through. Said coping also has perforations at each side for the lever, *d*.

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

1. The combination of the drawhead A, having the top groove *b*, slots $b^2$ and $b^4$; bar B, having the hook C, point *c*, and slot D, said bar pivoted in the front end of said groove; U-shaped lever *d*, pivoted to the front edge of the cross beam F, with its U working in the slot D, and rod *e*, pivoted to the front end of the coach and having the foot E, and square heel $e^2$, said foot working under the rear end of the beam B, and heel against the front edge of beam F, substantially as shown and described and for the purposes set forth.

2. The combination of the drawhead A, having the top groove *b*, slots $b^2$ and $b^4$; bar B, having the hook C, point *c*, and slot D, said bar pivoted in the front end of said groove; U-shaped lever *d*, pivoted to the front edge of the cross beam F, with its U working in the slot D, and rod *e*, pivoted to the front end of the coach and having the foot E and square heel $e^2$, said foot working under the rear end of the beam B, and heel against the front edge of beam F, and braces *f*, having the notch $f'$, pivoted to the sides of the coach, substantially as shown and described and for the purposes set forth.

3. In a car coupler, substantially as shown and described, the coping H, fitting over the said coupler having perforations for the rod *e*, and a lever *d*, to work through, substantially as shown and described and for the purposes set forth.

In testimony whereof I affix my signature in presence of two witnesses.

COLUMBUS M. WINN.

Witnesses:
I. W. ELLIS,
C. S. BAGLEY.