

Nov. 2, 1926.

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UNCOUPLING DEVICE

Filed Jan. 6, 1925

2 Sheets-Sheet 1

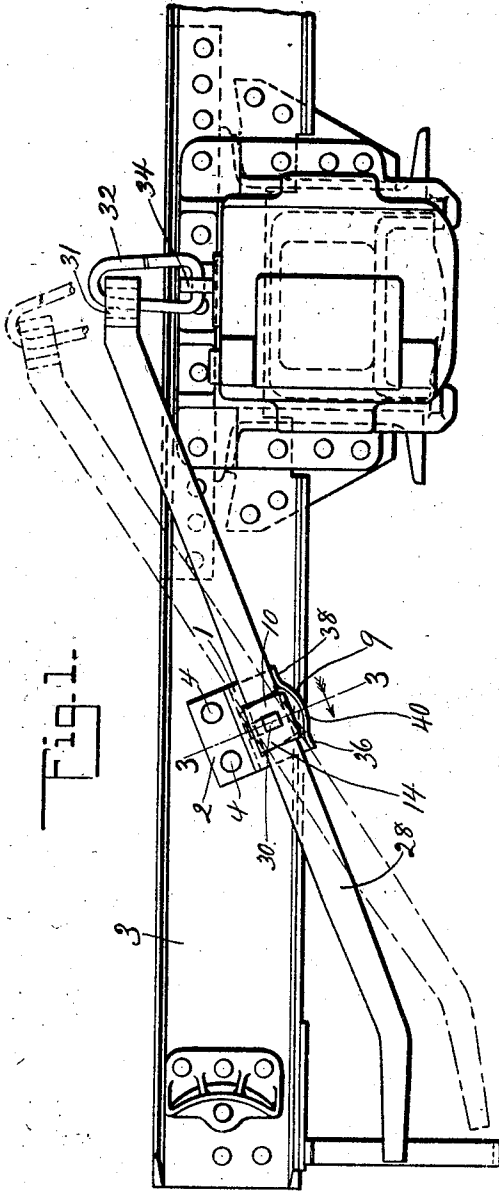


Fig. 1.

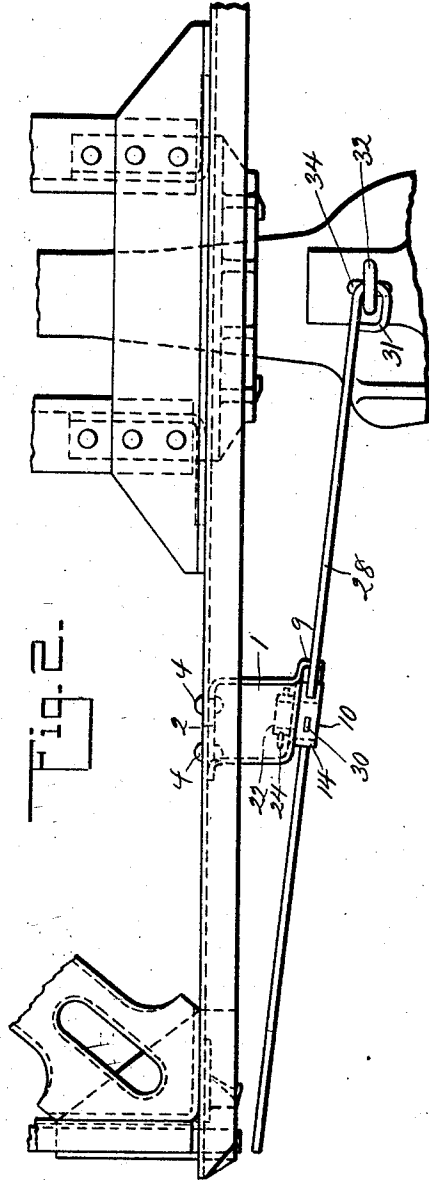


Fig. 2.

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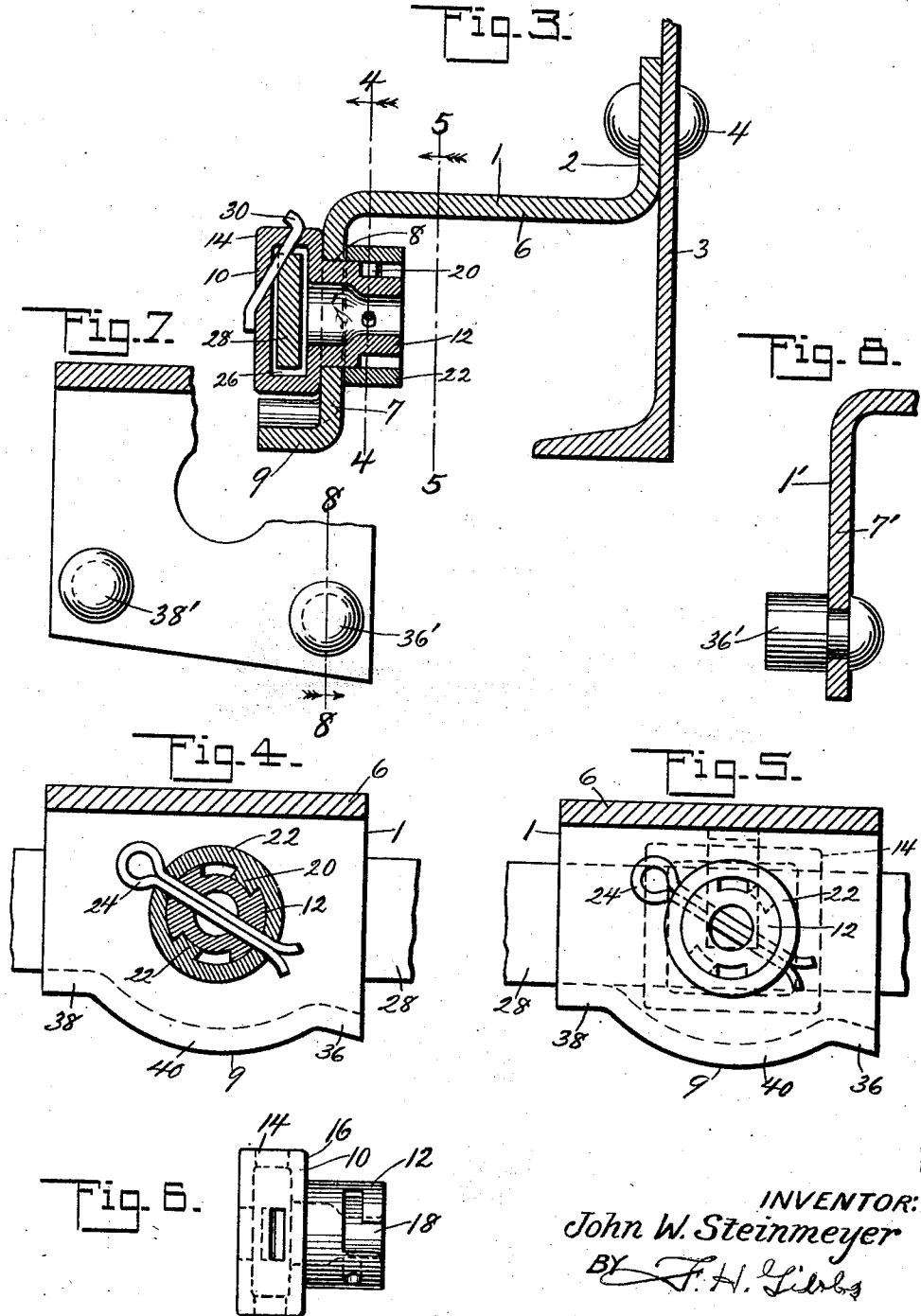
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2 Sheets-Sheet 2



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UNITED STATES PATENT OFFICE.

JOHN W. STEINMEYER, OF EAST ORANGE, NEW JERSEY, ASSIGNOR TO AMERICAN CAR AND FOUNDRY COMPANY, OF NEW YORK, N. Y., A CORPORATION OF NEW JERSEY.

UNCOUPLING DEVICE.

Application filed January 6, 1925. Serial No. 842.

The following is a full, clear and exact description, such as will enable others skilled in the art to which it appertains to make and to use the same, reference being had to the accompanying drawings which illustrate the preferred form of the invention; though it is to be understood that the invention is not limited to the exact details of construction shown and described, as it is obvious that various modifications thereof within the scope of the claims will occur to persons skilled in the art.

In said drawings:

Fig. 1 is a view in front elevation showing an uncoupling mechanism constructed in accordance with this invention applied to a car;

Fig. 2 is a top plan view of the construction shown in Fig. 1;

Fig. 3 is a vertical section taken on the line 3—3 of Fig. 1;

Figs. 4 and 5 are vertical sections taken on the lines 4—4 and 5—5 of Fig. 3;

Fig. 6 is a plan view of the lever trunnion shown detached from its supporting bracket;

Fig. 7 is a broken section of a modified supporting bracket on which stop rivets are used; and

Fig. 8 is a section taken on the line 8—8 of Fig. 7.

It is an object of this invention to provide an improved uncoupling mechanism for railway cars and also to provide a means for securing the uncoupling lever to the car consisting of few parts of simple, inexpensive construction which may be readily applied or removed from the car.

With these and other objects in view, my invention, as shown in the drawings, comprises an angular supporting bracket 1 having an outwardly projecting flange 2 by means of which it is secured to the end sill 3 by rivets 4. As shown in the drawings, the body portion of the angular bracket 1, as applied to a car, comprises a horizontal portion 6 and a vertical portion 7 having an opening 8 and an outwardly extending flange 9.

To the bracket 1 is secured a trunnion 10 having a cylindrical stem or bearing portion 12 rotatably mounted in the opening 8 and a rectangular head 14, the head 14 extending beyond the stem 12 so as to provide shoulders 16 which engage with the outer face of

the vertical portion 7 of the bracket 1 when the trunnion 10 is in position in the opening 8. The cylindrical stem 12 of the trunnion 10 is provided with angular-shaped slots 18 adapted to receive lugs 20 on a collar 22, the slots 18 being of such shape that they, with the lugs 20, constitute a bayonet lock which secures the collar 22 on the stem 12 of the trunnion.

The collar 22 is of such dimensions that when the lugs 20 are in the slots 18 the collar 22 will engage the inner face of the vertical portion 7 of the bracket 1 and hold the shoulders 16 in engagement with the outer face of the portion 7. The collar 22 is secured in position on the stem 12 by means of a cotter 24 which extends through openings in the stem 12 and collar 22 which are in alinement when the lugs 20 are at the limit of their movement in the slots 18.

The rectangular head 14 is provided with a rectangular opening 26 to receive the uncoupling lever 28, the uncoupling lever being held in position in the head 14 by means of a cotter 30 which passes through openings in the head 14 and engages in a notch in the lever 28. The lever 28 is bent at one end to form a loop 31 which receives a link 32 connected with the coupling pin 34.

As shown in Figs. 1, 4 and 5, the flange 9 is formed with flat portions 36 and 38 at its ends which engage the lever 28 and limit the movement thereof in both directions, while the center portion of the flange 9 is bent downwardly as at 40 so as to provide ample clearance between the head 14 and flange 9 to permit free and full movement of the lever 28. In the modified construction shown in Figs. 7 and 8, the vertical portion 7' of the bracket 1' is made without the flange 9 and in the place of the stop portions 36 and 38 of the flange 9 the stops 36' and 38' which limit the movement of the lever 28 in both directions are provided.

It will be seen that the construction described provides an uncoupling mechanism which may be readily applied to a car and after the supporting bracket 1 is attached future repairs or replacements may be made without the use of tools save such tools as are necessary to withdraw the cotters 24 and 30. Withdrawing the cotter 30 will permit the withdrawal of the lever 28 from the rectangular head 14 of the trunnion and with-

drawing the cotter 24 will permit of the collar 22 being rotated and withdrawn from the stem 12 of the trunnion whereupon the trunnion 10 may be withdrawn from the opening 8 in the bracket 1.

What is claimed is:

1. In an uncoupling mechanism for cars, a supporting bracket having angularly disposed body portions, a flange on one of said body portions for securing said bracket to the car sill, a trunnion rotatably mounted on the other of said body portions and having a head engaging with said bracket, a collar interlocking with said trunnion and engaging said bracket and an uncoupling lever mounted in said head.

2. In an uncoupling mechanism for cars, a supporting bracket having angularly disposed body portions, a flange on one of said body portions for securing said bracket to the car sill, a trunnion rotatably mounted on the other of said body portions and having a head engaging with said bracket, a collar interlocking with said trunnion and engaging said bracket, an uncoupling lever mounted in said head and means on said other body portion serving as stops for said lever.

3. In an uncoupling mechanism for cars, a bracket, a lever fulcrum mounted in said bracket and comprising a trunnion having a head provided with an opening therein perpendicular to the axis of rotation of the trunnion and a collar secured on said trunnion, said head and collar engaging opposite sides of said bracket.

4. In an uncoupling mechanism for cars, a bracket, a lever fulcrum mounted in said bracket and comprising a trunnion having a rectangular head provided with a lever opening therein perpendicular to the axis of rotation of the trunnion, a collar having a bayonet lock engagement with said trunnion and means to hold said collar in locking engagement with said trunnion, said head and collar engaging opposite sides of said bracket.

5. In an uncoupling mechanism for cars,

a supporting bracket having an opening, a trunnion having an opening therethrough rotatably mounted in said opening in said bracket, a collar interlocking with said trunnion to secure said trunnion in said bracket, an uncoupling lever projected through said trunnion and stops on said supporting bracket to engage said lever.

6. In an uncoupling mechanism for cars, a supporting bracket, a trunnion rotatably mounted on said bracket and having a shoulder engaging said bracket, a collar interlocking with said trunnion and engaging said bracket to secure said trunnion in position in said bracket, said trunnion having a lever opening, and an uncoupling lever mounted in said opening in said trunnion.

7. In an uncoupling mechanism for cars, an angular supporting bracket having an opening, a lever bearing trunnion having a cylindrical bearing portion extending through the opening in said supporting bracket and a rectangular head portion engaging the supporting bracket and having an opening to receive an operating lever, a collar interlocking with said cylindrical bearing portion to secure said trunnion in position, an uncoupling lever mounted in the opening in said head portion and means on said supporting bracket limiting the movement of said lever.

8. In an uncoupling mechanism for cars, a supporting bracket having an opening, a lever bearing trunnion having a cylindrical portion mounted in said opening and a rectangular head having a lever opening, a collar having a bayonet lock engagement with said cylindrical portion, said collar and said rectangular head engaging opposite sides of said supporting bracket, an uncoupling lever in the opening in said head, cotters securing said collar and lever in position and stops for said lever on said supporting bracket.

In witness whereof I have hereunto set my hand.

JOHN W. STEINMEYER.