

(No Model.)

S. HEYMANN & B. PROSSER.
CAR COUPLING.

No. 421,711.

Patented Feb. 18, 1890.

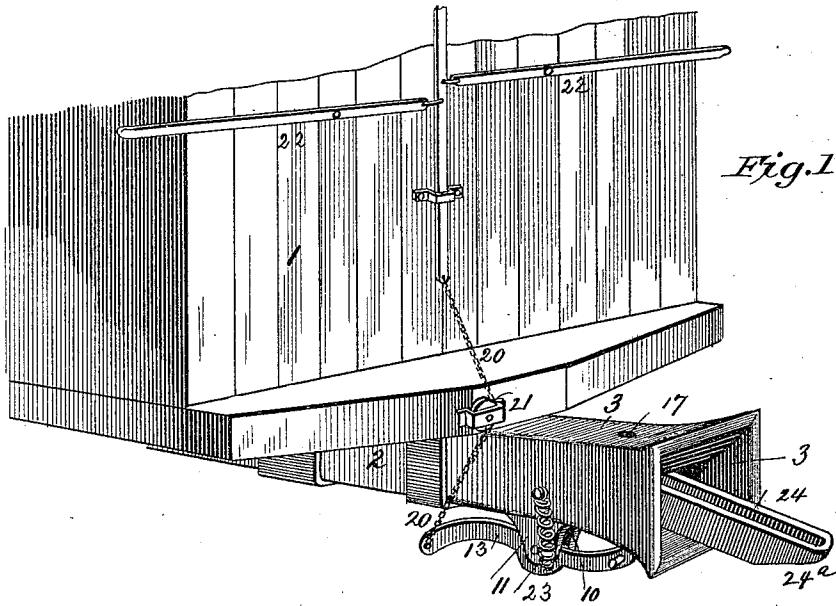


Fig. 1.

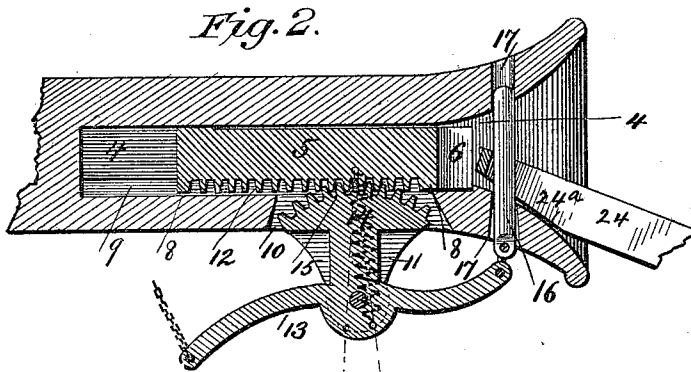


Fig. 2.

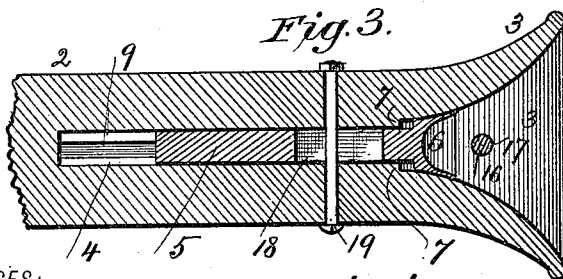


Fig. 3.



Fig. 4.

WITNESSES:
Fred G. Dieterich
Fred H. Stearns,

INVENTOR.
Solomon Heymann
Berry Prosser
BY *Wm. C. [Signature]*
ATTORNEY

UNITED STATES PATENT OFFICE.

SOLOMON HEYMANN AND BERRY PROSSER, OF FAYETTEVILLE, TENNESSEE.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 421,711, dated February 18, 1890.

Application filed September 2, 1889. Serial No. 322,774. (No model.)

To all whom it may concern:

Be it known that we, SOLOMON HEYMANN and BERRY PROSSER, of Fayetteville, in the county of Lincoln and State of Tennessee, have invented a new and useful Improvement in Car-Couplings, of which the following is a specification.

Our invention consists in a new and improved car-coupling, which will be hereinafter fully described and claimed.

Referring to the accompanying drawings, Figure 1 is a perspective view of our improvement. Fig. 2 is a central vertical section thereof, and Fig. 3 is a horizontal section of the same. Fig. 4 is a section of the bar 5.

The same numerals of reference indicate corresponding parts in all the figures.

Referring to the several parts by their designating-numerals, 1 indicates the end of a car which is provided with our new and improved car-coupling. Beneath the end of the car is secured a draw-bar 2, having the draw-head 3. This draw-bar is formed with the longitudinal opening 4, in which fits a sliding bar 5, having the curved head 6 at its outer end, the ends of which come in contact with shoulders 7 at the rear end of the draw-head when the bar is slid back by the coupling-link striking against it. The forward end of the sliding bar is formed on its lower side with a guide-lug 8, which slides in a guide-groove 9 in the bottom of the draw-head. The lower side of the draw-bar is formed with a longitudinal slot 10, opening into the space 4, and with bearing-lugs 11 11 on each side of this slot. The lower side of the bar 5 is provided with a rack or series of teeth 12.

Between the lugs 11 is centrally pivoted the lever 13, the inner upwardly-extending end of the middle part 14 of which is provided with the curved rack of teeth 15, which intermesh with the teeth on the lower side of the sliding bar 5. In the forward end of the curved lever 13 is secured the lower end of the coupling-pin 16; or the pin and lever may be cast in one piece, which passes up through the usual apertures 17 in the draw-head. The sliding bar 5 is formed with a short longitudinal slot 18, and a stop-pin 19 passes through the sides of the draw-bar and through this slot and confines the movements of the sliding

bar to the proper limits. To the rear end of the lever 13 are secured the lower ends of chains 20, which then pass under grooved pulleys 21 and up to levers 22, which can be secured to the end of the car, so that the cars can be uncoupled from their top or sides without going between them.

23 indicates a spring, which is secured at one end to the draw-bar and at the other end to the lever 13 at the point shown, by which arrangement it will be seen that this spring will operate to hold the lever in either its "locked" or "unlocked" positions, as shown in dotted lines in Fig. 2. When the rear end of the lever is raised, the curved rack of teeth 15, meshing with the teeth 12 of the sliding bar 5, will slide the said bar forward, and at the same time the forward end of the lever draws the coupling-pin down. When two cars to be coupled come together, the end of the coupling-link comes in contact with the curved head 6 of the sliding bar 5, pushing the bar back, when the teeth of the bar meshing with the teeth 15 of the lever, the front end of the lever will be raised, pushing the coupling-pin up through the link. It will thus be seen that our invention will couple cars together automatically, while they are uncoupled by raising the rear end of the lever 13, through the chain 20 and levers 22, without going between the cars.

24 indicates our coupling-link, which is flat on its upper side, but is beveled or inclined upon the lower side of each end at 24^a to cause it to readily enter and slide up the inclined bottom of a draw-head, which is of especial value when the draw-heads are of slightly different heights.

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

1. In a car-coupling, the combination of the draw-head having the bar formed with the longitudinal opening 4, the slot 10, and the bearing-lugs 11, the sliding bar having the head at its front end and the series of teeth on its lower side, and the lever pivoted between the lugs 11 and having the curved rack 15 and having the coupling-pin at its forward end, substantially as set forth.

2. In a car-coupling, the combination of

the draw-head having the bar formed with the opening 4, the slot 10, and the bearing-lugs 11, the sliding bar having the head at its front end and the series of teeth on its lower side, the pivoted lever having the curved rack 15 and having the coupling-pin at its forward end, and the spring secured at one end to the draw-bar and at the other to the lever, substantially as set forth.

3. The combination of the draw-head having the bar formed with the opening 4, the slot 10, and the bearing-lugs 11, the sliding bar having the head 6 and the series of teeth on its lower side, the pivoted lever having the curved rack 15 and having the coupling-pin at its forward end, the grooved pulleys 21, the chains 20, and the levers 22, substantially as set forth.

4. The combination of the draw-head formed with the guide-groove 9 and the shoulders 7, and having the bar formed with the

opening 4, the slot 10, and the bearing-lugs 11, the sliding bar having the head 6, the bottom guide-lug 8, and the series of teeth 12, and the pivoted lever having the curved rack 15 and having the coupling-pin at its forward end, substantially as set forth.

5. The combination of the draw-head having the bar formed with the opening 4, the slot 10, and the bearing-lugs 11, the sliding bar having the head 6 and the rack 12 and formed with the longitudinal slot 18, the transverse stop-pin 19, and the pivoted lever having the curved rack 15 and having the coupling-pin at its forward end, substantially as set forth.

SOLOMON HEYMANN.
BERRY PROSSER.

Witnesses:

JNO. R. HANCOCK,
M. B. COLBERT.