

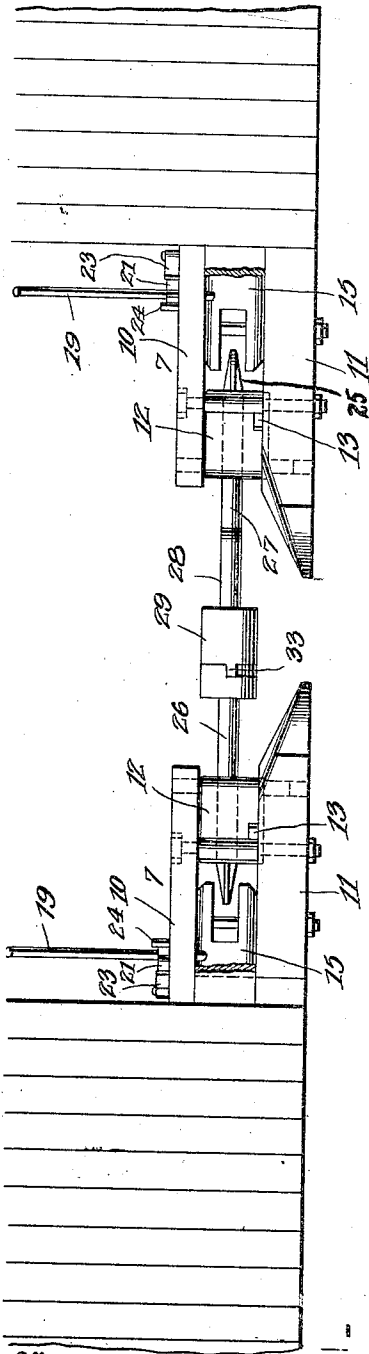
J. E. HUDLER.
CAR COUPLING.

APPLICATION FILED MAY 22, 1909.

Patented Dec. 14, 1909.

2 SHEETS—SHEET 1.

943,079.



Witnesses
W. H. Rodger
R. H. H. H.

FIG. 1

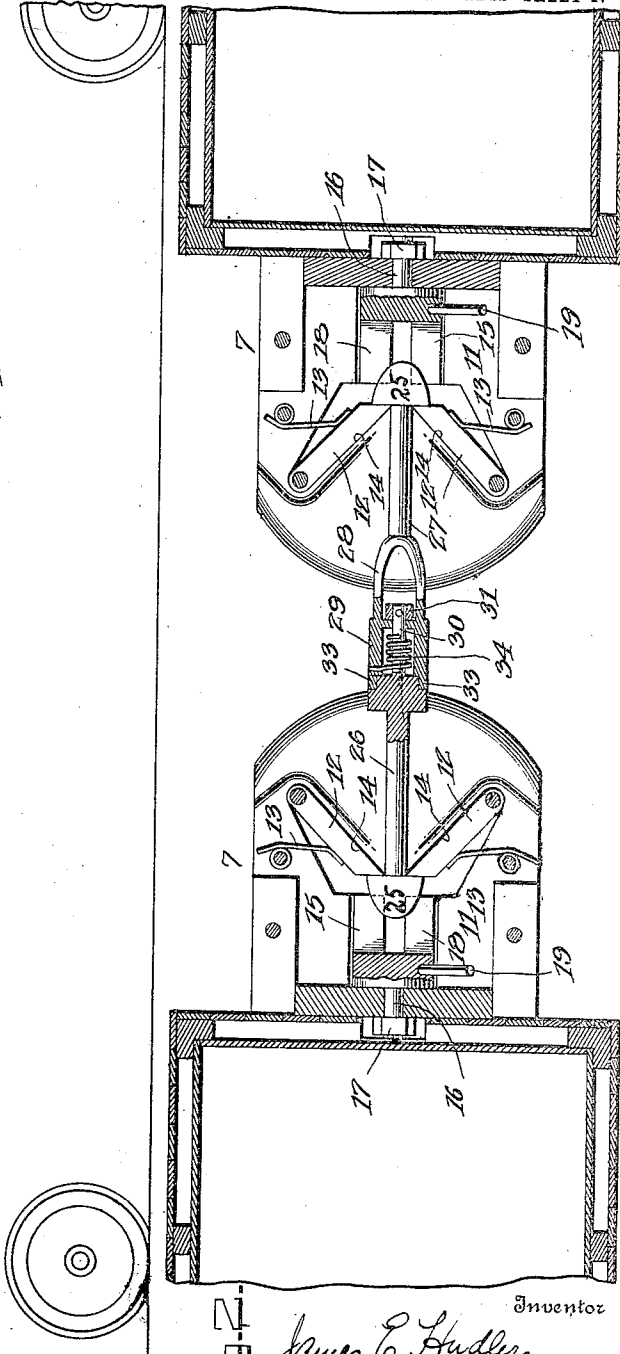


FIG. 2

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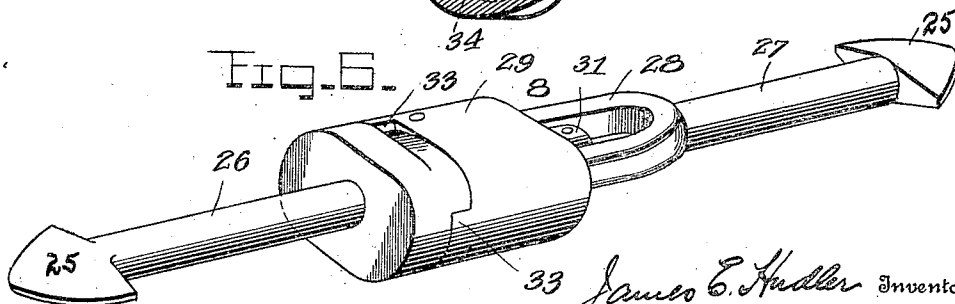
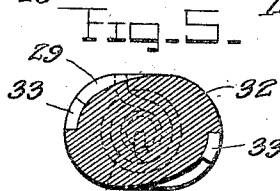
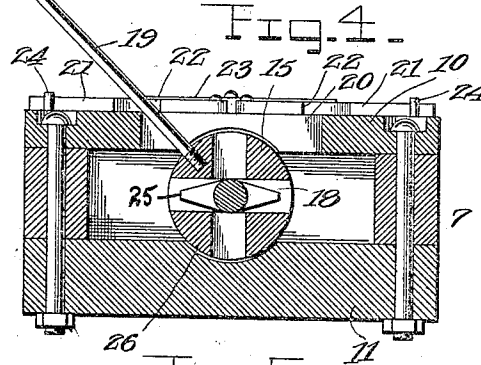
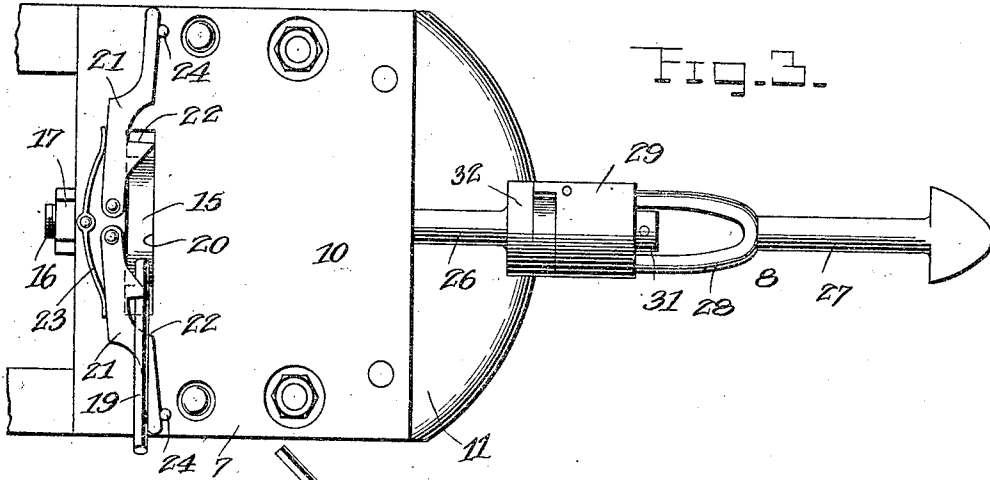
CAR COUPLING.

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Witnesses
W. H. Rodgers
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UNITED STATES PATENT OFFICE.

JAMES E. HUDLER, OF CRUMPLER, NORTH CAROLINA.

CAR-COUPLING.

943,079.

Specification of Letters Patent.

Patented Dec. 14, 1909.

Application filed May 22, 1909. Serial No. 497,821.

To all whom it may concern:

Be it known that I, JAMES E. HUDLER, a citizen of the United States, residing at Crumpler, in the county of Ash and State of North Carolina, have invented certain new and useful Improvements in Car-Couplers, of which the following is a specification.

This invention relates to means for coupling together railway rolling stock, and the primary object is to provide a novel, simple and practicable structure, which will automatically couple cars together, and will effectively prevent their accidental separation, such structure being so arranged, however, that the cars can be uncoupled with ease and expedition and without danger to the trainmen or other operatives.

While the preferred embodiment of the invention is disclosed in the accompanying drawings and described in the following specification, it will be evident from an inspection of the claims hereto appended that the invention is not necessarily limited to the exact structure set forth.

In the drawings: Figure 1 is a side elevation of portions of two cars, showing the same coupled by the novel mechanism. Fig. 2 is a longitudinal horizontal sectional view therethrough. Fig. 3 is a top plan view of one of the coupler heads. Fig. 4 is a vertical transverse sectional view therethrough, showing the coupling link in place. Fig. 5 is a detail cross sectional view through the connection between the link sections. Fig. 6 is a detail view of the link.

Similar reference numerals designate corresponding parts in all the figures of the drawings.

In the embodiment disclosed, two cooperating coupler heads 7 are employed, connected by a link designated generally by the reference numeral 8. Inasmuch as the heads are in all respects duplicates, a description of one will suffice for both, and the same reference numerals have been employed for corresponding elements. Each head consists of a top wall 10 and a bottom wall 11, the latter projecting beyond the top wall and having its upper face preferably beveled. A rear wall connects the rear portions of the top and bottom wall. Journalled to and between the said top and bottom walls are link-holding jaws 12 that have pintles engaged in said walls, these jaws being urged toward each other by leaf springs 13

arranged behind them. The movement of the jaws toward each other is, however, limited by stop shoulders 14 formed in the bottom wall, which constitute abutments for said jaws and maintain them with their inner or rear edges spaced apart, as will be clear by reference to Fig. 2. Journalled in the rear wall and arranged between said wall and the rear ends of the jaws is a rotatable device 15 having a pintle 16 that extends through the rear wall and is provided with a retaining nut 17 threaded on its projecting end. This rotatable device has in its front end angularly disposed seats 18, one of which is alined with the space between the jaws, while the other is at right angles to said space.

An actuating arm 19 projects from one side of the rotatable device 15, and through a slot 20 formed in the top wall 9 of the coupler head. For the purpose of holding the actuating arm at the limits of its movement, latches 21 are pivoted upon the top wall and have seats 22 to receive the arm. These latches are urged across the slot 20 by a spring 23 secured between its ends and having said ends bearing respectively against the latches. Stops 24 limit the movements of the latches.

Coöperating with the coupler heads above described is a coupler link comprising two shank sections 26 and 27 carrying at their ends arrow heads 25 that have opposite flat tapered faces. One of the shank sections 27 has its end formed into a yoke 28 that carries a journal box 29, while the other shank section 26 has an extension 30 journalled in said box and maintained therein by a holding collar 31 fixed to the extension 30 and arranged in the yoke 28. The shank section 26 furthermore has an enlargement 32 disposed alongside the journal box 29, and stop lugs 33 formed respectively on the box 29 and enlargement 32, serve to limit the relative rotation of the shank sections. A spring 34, connected to the boxing 29 and to the extension 30, serves to yieldingly maintain the stop shoulders 33 in abutting relation.

With this construction, it will be evident that if one of the arrow heads 25 is moved inwardly and in a horizontal position between the top and bottom walls 9 and 10 of the coupler head, it will cause the jaws 12 to swing apart against the action of the springs until the head passes said jaws, whereupon

the jaws will move toward each other behind the head, and will prevent its withdrawal. After passing the jaws, the link head enters the horizontally disposed seat 18 of the rotatable device. If now the actuating arm 19 is unlatched and turned, it will be evident that the link head 27 will be rotated to a vertical position, in which case it is in line with the space between the inner ends of the jaws, and can pass freely outward between said jaws, without the necessity of actuating the jaws in any manner. When the link is therefore in operative position, connecting two coupler heads, the link heads are in their horizontal position. To uncouple the cars, it is only necessary to unlatch one of the arms 19 and turn the same to the opposite end of the slot, where it is again locked. This will turn one of the link sections so that its head is out of interlocking relation with the jaws, and the cars can be separated for the head will pass freely out through the space between the jaws. To couple the cars, it is only necessary to introduce the link into one of the coupler heads, and when said heads come together, the other end of the link will automatically enter the other head.

From the foregoing, it is thought that the construction, operation and many advantages of the herein described invention will be apparent to those skilled in the art, without further description, and it will be understood that various changes in the size, shape, proportion and minor details of construction, may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

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

1. In a car coupler, the combination with coacting coupler heads, of link head holding means thereon, a link comprising connected relatively rotatable heads that move out of

interlocking relation with the holding-means on their rotation, rotatable devices mounted on the coupler heads and having intersecting angularly disposed seats for the reception of the link-heads, and means for maintaining each head against rotation in either of two positions and with either seat thereof in a position to receive the head of the link.

2. In a car coupler, the combination with coacting coupler heads, of link head-holding jaws pivotally mounted thereon and having link-receiving spaces between them, a link comprising connected relatively rotatable heads that move out of interlocking relation with the jaws on their rotation, rotatable devices mounted on the coupler heads and having intersecting angularly disposed seats for the reception of the link heads, said seats alternately alining with the link-receiving spaces between the jaws, and means for locking each device with either seat so alined.

3. In a car coupler, the combination with a coupler head, of jaws pivotally mounted thereon and movable toward each other, means for limiting the movement of the jaws to afford a space between them, a rotatable device arranged behind the jaws and having angularly disposed seats, one of which is arranged in angular relation to the space between the jaws, an arm fixed to the device, latches for engaging the arm to hold the device in different positions, and a link having an arrow head that moves inwardly between and engages behind the jaws, said head engaging in one of the seats of the device and being rotated thereby to a position to pass outwardly between the jaws.

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

JAMES E. HUDLER.

Witnesses:

G. D. DICKSON,
HARRY PROCTER.