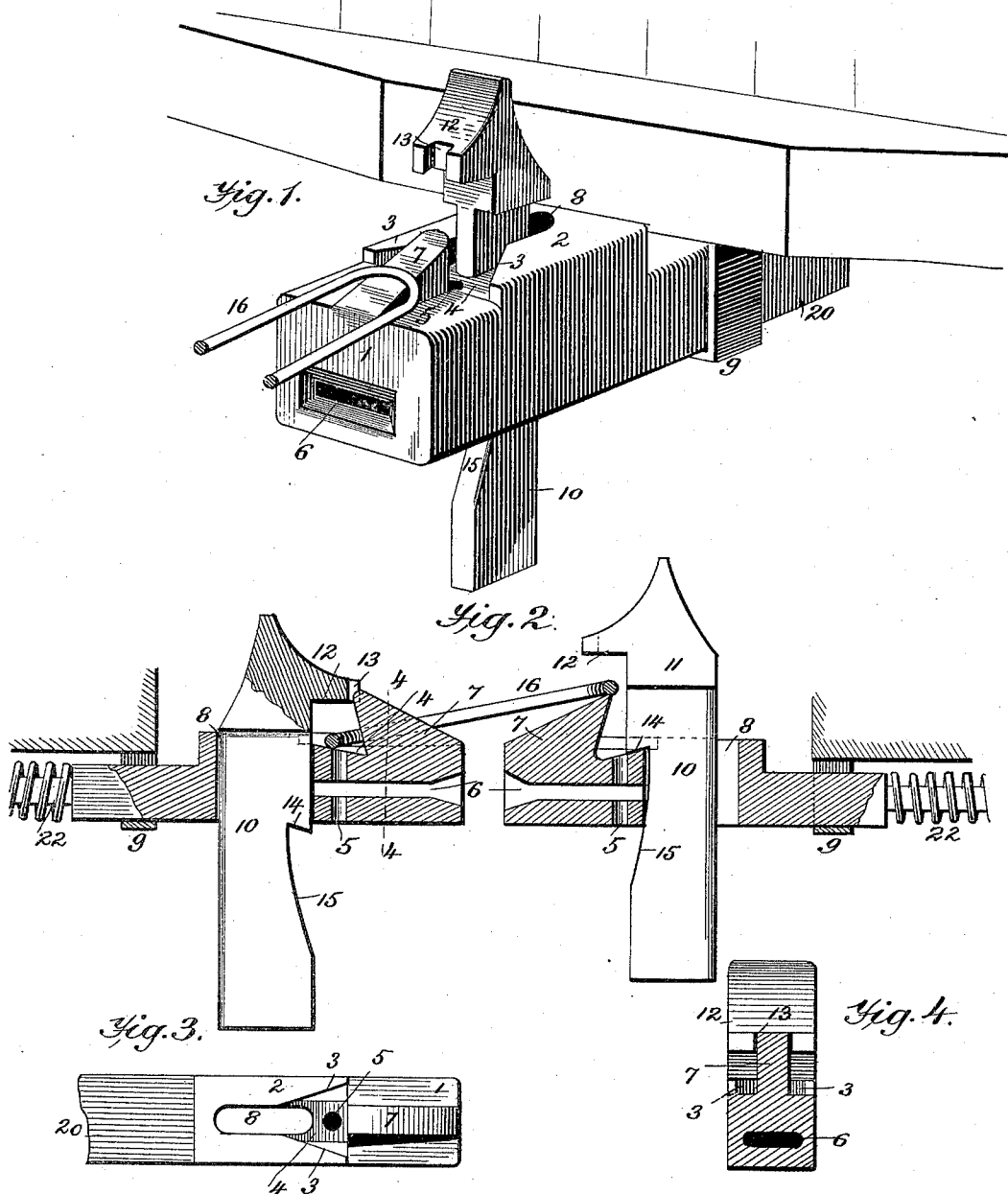


(No Model.)

J. A. RIGHTMIRE.
CAR COUPLING.

No. 584,404.

Patented June 15, 1897.



WITNESSES:
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UNITED STATES PATENT OFFICE.

JAMES A. RIGHTMIRE, OF TULLAHOMA, TENNESSEE.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 584,404, dated June 15, 1897.

Application filed February 19, 1897. Serial No. 624,166. (No model.)

To all whom it may concern:

Be it known that I, JAMES A. RIGHTMIRE, a citizen of the United States, residing at Tullahoma, in the county of Coffee and State of Tennessee, have invented certain new and useful Improvements in Car-Couplers; and I do hereby 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.

My invention has for its object to provide a car-coupler of a very simple but strong construction which can be easily manipulated and which will serve to positively operate to couple the car.

My invention also seeks to provide a simple car-coupling mechanism in which the coupling-head and link-securer are so arranged that the draw-heads will readily become uncoupled in case of a wreck.

With other objects in view, which will hereinafter appear, my invention consists in a coupler embodying the peculiar combination and novel arrangement of parts, such as will be first described in detail and then be specifically pointed out in the appended claims, reference being had to the accompanying drawings, in which—

Figure 1 is a perspective view of my car-coupler, the link-holder pin being shown set to its elevated position. Fig. 2 illustrates two draw-heads constructed in accordance with my invention in the act of coupling. Fig. 3 is a plan view of one of the draw-heads, and Fig. 4 is a transverse section taken on the line 4 4 of Fig. 2.

Referring to the accompanying drawings, in which like numerals indicate like parts in all the figures, 1 indicates the draw-head, which has a raised portion 2, the rear end of which joins the usual abutment, and a rearwardly-extending member 20, held on the usual pendent strap or guide 9 and provided with the usual buffer-spring devices 22, as shown.

The raised portion 2 has its front end open and its side walls 3 extended diverging forward to provide a guide and seat way for the end of the link 16 when the same passes up and over the inclined coupling-hook 7 on the

upper front end of the draw-head, as clearly shown in Fig. 1.

8 indicates an elongated vertical opening in the draw-head for the passage of the coupling-pin or link-securer 10, which is in the nature of a gravity drop member, in practice of suitable weight so as to retain its seat when in a dropped or coupled position.

The pin 10 has an undercut or shoulder portion 14 and an inclined front edge 15, so that when raised to its uncoupled position such shoulder will readily seat on the inclined seat or link end of recess 4, as clearly shown in Fig. 2, such pin 10 also having shoulders 11 to engage the top of the draw-head and a forwardly-projecting member or nose 12, having a recess or seat 13, whereby when the pin is to its dropped position the said nose will have its bifurcated or recessed end to project over the edges of the coupling member 7. (See Fig. 4.) The draw-head is also provided with the usual link-recess 6 and pin-opening 5 for the ordinary link-and-pin-coupling members when it is to be coupled to a car equipped with only ordinary link-and-pin devices.

From the foregoing description, taken in connection with the accompanying drawings, it is thought the advantages and operation of my invention will be readily understood.

When it is desired to couple the cars, the pin at one side is set in the position shown in Fig. 1 and at the right in Fig. 2, the inclined or undercut portion 14 and the curved front edge 15 serving to keep it in a vertical position.

The link held by the opposite draw-head will rise up the inclined coupling member 7 in front of it, and as it passes over it engage the pin 10, dislodge it, and then it will drop by gravity to the position shown at the left of Fig. 2, its nose 12 forming a stop to prevent the link end accidentally jumping up over the member 7, such member in practice having its rear or coupling shoulder made inclined to form a more positive coupling.

While I have not shown it, it is manifest that suitable lift devices adapted to be attached to the pins 10, operated from the sides of the car or the top, may be provided, it being also understood that the pins and the link may be lifted to an uncoupled position by

suitable hand lever devices without requiring the operator to go between the cars.

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

1. The combination with the draw-head having an inclined coupling-lug, on its top face, and an elongated vertical slot 8, of the gravity-pin 10 having a head 11 provided with a nose or projecting member 12 having a recess 13, and an undercut or seat portion 14 said draw-head having a shoulder which the seat 14 engages all arranged substantially as shown and described.

2. The combination with the draw-head having a coupling member 7 provided with an inclined upper face, a seat or depressed por-

tion 4 to the rear of member 7 and an elongated slot 8, said head having a raised portion 2 provided with diverging front walls 3 forming side walls for the depressed portion 4, of the link 16, and the gravity-pin 10, said pin having a head portion provided with a nose adapted to project over the rear of the member 7 and an undercut seat 14 all being arranged substantially as shown and described.

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

JAMES A. RIGHTMIRE.

Witnesses:

J. W. SCOTT,

J. W. GILLESPIE.