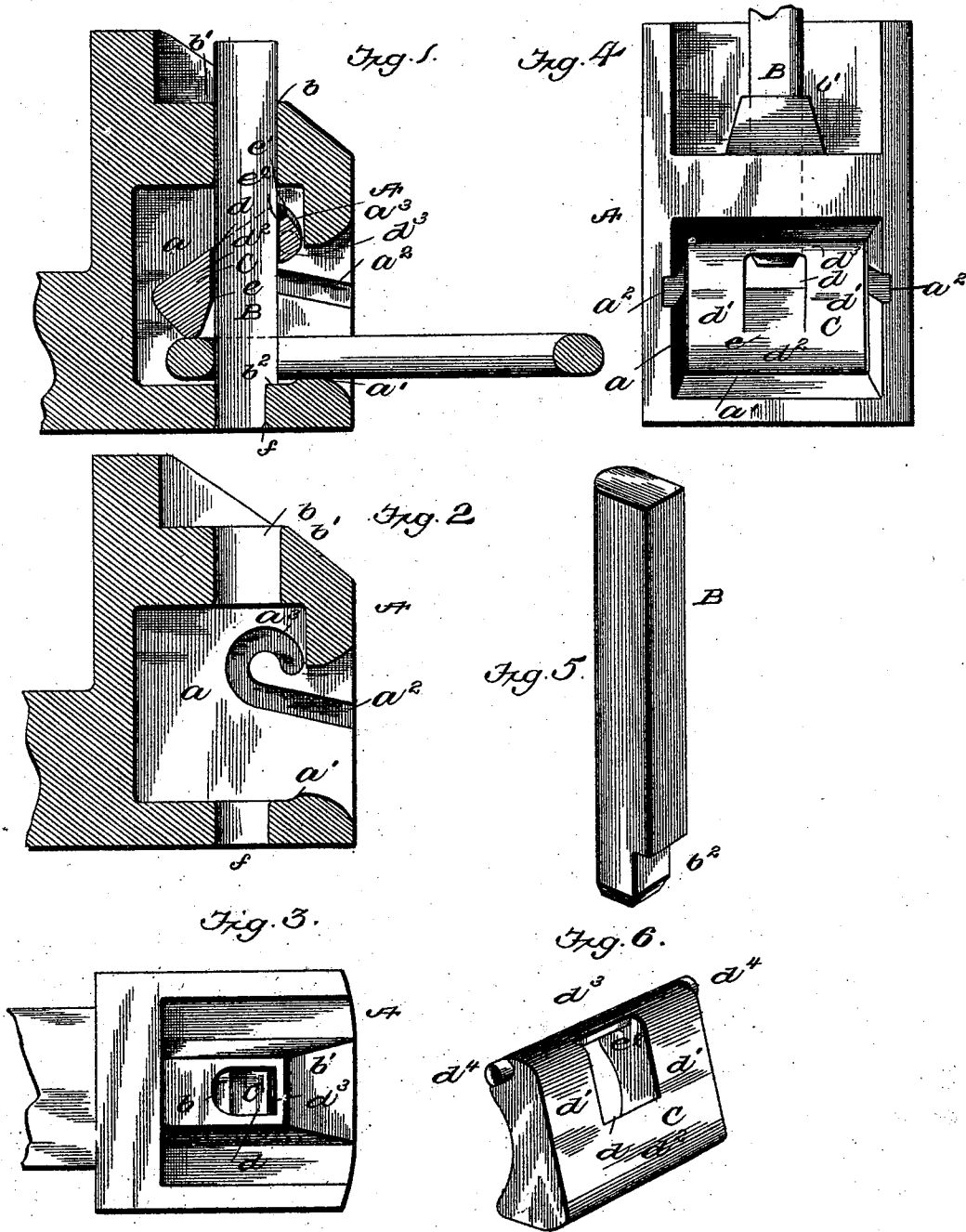


(No Model.)

J. C. ROSE.  
CAR COUPLING.

No. 516,943.

Patented Mar. 20, 1894.



Witnesses.

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# UNITED STATES PATENT OFFICE.

JAMES COOPER ROSE, OF ASPEN, COLORADO.

## CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 516,943, dated March 20, 1894.

Application filed November 28, 1893. Serial No. 492,282. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES COOPER ROSE, of Aspen, in the county of Pitkin and State of Colorado, have invented certain new and useful Improvements in Car-Couplings; 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.

This invention contemplates certain new and useful improvements in car-couplings and it has for its object the production of improved, simple and highly efficient means for holding the coupling pin elevated and cause the automatic lowering thereof upon the entrance of a coupling link and also to hold the latter in proper position ready for coupling.

A further object is to render the pin support and link-holder capable of being readily removed and a new one substituted in case of accident.

The invention consists of a car coupling having its chambered drawhead provided with approximately J-shaped slots or grooves in its side walls in which is designed to fit the trunnions or rounded corners of the pin support, which latter can be readily inserted in place and quickly removed.

The invention further consists of a drawhead having a U-shape opening in its top, a coupling pin designed to move in and be guided by said opening, said pin having an offset or shoulder at its lower end, and a pivoted support for said pin which will hold the latter elevated and when the pin is dropped through the opening of a coupling link will bear upon the latter and hold it in a horizontal position.

The invention also comprises the details of construction, combination and arrangement of parts, substantially as hereinafter fully set forth and particularly pointed out in the claims.

In the accompanying drawings:—Figure 1 is a vertical longitudinal sectional view of my improved car-coupling. Fig. 2 is a similar view of the chambered drawhead. Fig. 3 is a plan view. Fig. 4 is a front end view.

Figs. 5 and 6 are, respectively, views of the pin and the support therefor.

Referring to the drawings, A designates the drawhead, having a chamber  $a$ , the bottom of which has a transverse ridge or shoulder  $a'$  across its outer edge. In the inner surface of the side-walls of this chambered drawhead are opposite corresponding slots or grooves  $a^2$  which extend from the outer end of the drawhead inwardly and upwardly and are then curved forward, terminating in rounded ends  $a^3$ , the whole being of approximately J-shape. In the top of the drawhead is a U-shape opening  $b$  which is surrounded by an extension  $b'$ .

B is the coupling pin which is of U-shape in cross-section and designed to fit and slide in the U-shape opening  $b$ . At its lower end this pin is provided with an offset or shoulder  $b^2$ .

C is the pin support and link-holder, the same holding the pin elevated prior to coupling and automatically allowing the latter to drop through the opening of a link upon the entrance thereof, said link being held in a horizontal position by the weight of said support and holder. This support and holder has a diagonal central opening  $d$ , two curved sides  $d'$ ,  $d''$ , connected at their lower ends by a widened cross-piece  $d^2$  and at their upper ends by a cross-piece  $d^3$ , the ends of which latter are rounded to form trunnions  $d^4$ . The latter fit in the rounded ends of slots or grooves  $a^2$  and thus form the pivots for the support. The under side of the lower cross-piece  $d^2$  is curved or partly rounded, as shown, and its upper side is beveled, as at  $e$ , extending through opening  $d$ . The under side of the top cross-piece  $d^3$  is likewise beveled, as at  $e'$ , corresponding to the bevel of the lower cross-piece. The upper cross-piece at that part over the opening is thus reduced to form a shoulder  $e^2$  on which rests the shoulder of the lower end of the coupling pin. The beveled portions of the cross-pieces permit the coupling pin to drop through opening  $d$  when the holder or support is moved rearward. When the latter is so moved by an approaching link it will not only permit the lowering of the pin through the link-opening but will also

bear on the inner end of the latter and hold it horizontally so that in the event of coupling with another drawhead the link will be properly positioned. The coupling pin when  
5 lowered is held in place by its lower reduced end fitting in a corresponding opening *f* in the bottom of the drawhead.

The advantages of my invention are apparent to those skilled in the art and it will be  
10 specially observed that the gravity holder or support for the coupling pin also serves as a holder to keep the link in a horizontal position. Another and important advantage is the removability of the gravity support. The  
15 latter is, of course, liable to be worn or injured by the force of the link of the approaching drawhead, and in that event by means of my invention the holder can be readily removed and a new one substituted.

20 A coupler constructed in accordance with my invention is extremely simple and inexpensive and not liable to readily get out of order or be deranged.

I claim as my invention—

25 1. The herein-described improved car coupling, comprising the chambered drawhead having a U-shape opening in its top, the gravity holder or support pivoted in said drawhead and having a central diagonal opening,  
30 and the coupling pin of U-shape in cross-section having a shoulder at its lower end normally in engagement with said gravity holder, substantially as set forth.

2. The herein-described improved car-coupling, comprising the chambered drawhead 35 having an opening in its top and inner inclined slots or grooves in its sides extending from the outer end thereof and curved at their upper ends into approximately J-shape, the pin-holder or support having trunnions 40 fitted in said slots or grooves and provided with a central opening and a shoulder, and the coupling pin movable in said opening in the top and having a lower shouldered end designed to engage said shoulder of said holder 45 or support, substantially as set forth.

3. The combination with the chambered drawhead having an opening in its top and bottom, a ridge or shoulder extending across the forward edge of said bottom and slots or 50 grooves in the sides extending from the outer end inwardly and upwardly, terminating in curved ends, the removable pin holder or support having a central opening, a lower widened end and trunnions at its upper end fitting in 55 said slots or grooves, and the pin movable in said openings in the drawhead and holder or support, substantially as set forth.

In testimony whereof I have signed this specification in the presence of two subscrib- 60 ing witnesses.

JAMES COOPER ROSE.

Witnesses:

L. A. W BROWN,  
EDWIN ARKELL.