

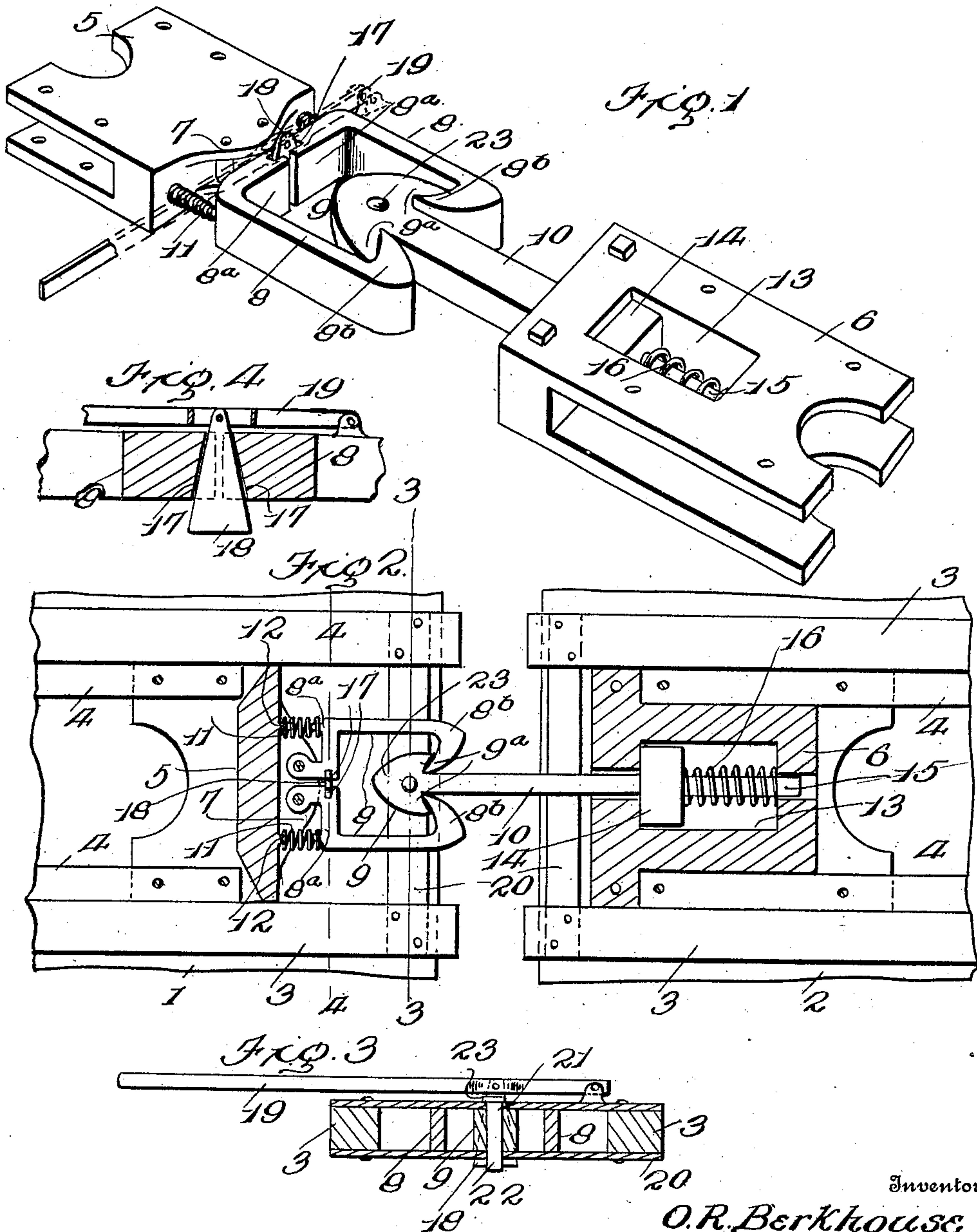
O. R. BERKHOUSE, E. McCONVILLE & E. R. PATRICK.

CAR COUPLING.

APPLICATION FILED APR. 29, 1908.

925,276.

Patented June 15, 1909.



Witnesses

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UNITED STATES PATENT OFFICE.

OSCAR RUBEN BERKHOUSE, EDWARD McCONVILLE, AND EARL R. PATRICK, OF HEILWOOD, PENNSYLVANIA.

CAR-COUPLING.

No. 925,276.

Specification of Letters Patent.

Patented June 15, 1909.

Application filed April 29, 1908. Serial No. 430,013.

To all whom it may concern:

Be it known that we, OSCAR RUBEN BERKHOUSE, EDWARD McCONVILLE, and EARL R. PATRICK, citizens of the United States, residing at Heilwood, in the county of Indiana and State of Pennsylvania, have invented certain new and useful Improvements in Car-Couplers, of which the following is a specification.

The object of the present invention is the provision of an improved car coupler embodying a novel construction whereby the cars may be securely joined together and also embodying means for releasing the coupler without the necessity of the operator stepping between the cars.

The invention further contemplates a novel construction for absorbing the shocks and jars which are commonly incident to the stopping and starting of a train.

For a full understanding of the invention and the merits thereof and also to acquire a knowledge of the details of construction and the means for effecting the result, reference is to be had to the following description and accompanying drawings, in which:

Figure 1 is a perspective view of a car coupler embodying the invention. Fig. 2 is a horizontal sectional view showing the coupler applied to a pair of cars, portions being removed. Fig. 3 is a transverse sectional view on the line 3—3 of Fig. 2. Fig. 4 is a similar view on the line 4—4 of Fig. 2.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

Referring to the drawing, the numerals 1 and 2 designate a pair of cars, each of the cars being provided with the bumpers 3 and the bumpers upon one car being arranged in coöperative relation to the bumpers upon the opposite car. Extending along the bottom of each of the cars is a pair of draft beams 4, the said draft beams being arranged between the bumpers and a draw head 5 being secured to the draft beams 4 upon the car 1 while a second draw head 6 is secured to the draw bars upon the car 2. Projecting forwardly from the draw head 5 are the spaced horizontal flanges 7 between which the jaws 8 are pivoted, the said jaws being designed to engage an arrow-shaped enlargement 9 at the extremity of a coupling bar 10 which projects from the draw head 6 and is yieldingly

mounted upon the same. Each of the jaws 8 is provided adjacent the pivot end thereof with an offset portion 8^a and interposed between these offset portions of the jaws and the draw head are the coil springs 11 which serve to force the jaws together, the extremities of the springs being engaged by lugs 12 projecting respectively from the jaws and the draw head. The extremities of the jaws 8 are inclined inwardly and rearwardly at 8^b and the base of the arrow-shaped enlargement 9 is inclined rearwardly in a corresponding manner at 9^a so that the jaws are normally held against accidental disengagement from the coupling bar.

The draw head 6 is slotted at 13 and a block 14 to which the coupling bar 10 is connected is slidably mounted within this slot. Projecting rearwardly from the block 14 is a stem 15 surrounded by a coil spring 16 which is interposed between the said block and the rear end of the slot and normally tends to force the block together with the coupling bar 10 carried thereby outwardly. However, should the two draw heads 5 and 6 be moved toward each other the coil spring 16 will permit of the ready movement of the block 14 within the slot and will tend to absorb all shocks and jars.

The two jaws 8 are provided toward their pivot ends and upon their adjacent faces with the corresponding cam slots 17 which are vertically disposed and gradually become deeper toward the bottom of the jaws. Received within these slots 17 is a wedge-shaped plate 18 loosely connected to a lever 19 one end of which is pivotally mounted upon the car while the opposite end terminates in a handle located adjacent one side of the car. When this lever 19 is swung upwardly the wedge-shaped plate 18 has a cam engagement with the slots 17 and operates to separate the jaws 8 to admit of the arrow-shaped enlargement 9 being drawn from or inserted between the jaws. As soon as the lever is again lowered the plate 18 is moved downwardly within the slots 17 and the springs 11 serve to move the jaws 8 inwardly toward each other. It will thus be obvious that owing to the provision of the lever 19 the cars can be coupled or uncoupled without the necessity of the operator stepping between the same.

The bumpers 3 upon each of the cars 1 and 2 are connected by the cross bars 20 which are secured to the upper and lower faces

thereof and are provided at their central portions with the corresponding openings 21. Should the jaws 8 of the draw head 5 be broken or for any reason refuse to operate in a proper manner the cars may be temporarily connected by the use of a pin 22 which is inserted through the openings 21 of the cross bars 20 and passes through an opening 23 in the arrow-shaped enlargement 9. These cross bars 20 also serve as guides for the jaws 8 and coupling bar 10 respectively and prevent vertical swinging movement of the said members.

Having thus described the invention, what is claimed as new is:

1. In a car coupler, the combination of a pair of draw heads, a coupling bar projecting from one of the draw heads and terminating in an arrow shaped head, a pair of cooperating jaws mounted upon the opposite draw head for engaging the arrow shaped head of the coupling bar, the said jaws being each formed with an offset portion, and springs interposed between the draw head and the offset portion of the jaws for holding the jaws in operative position.

2. In a car coupler, the combination of a pair of draw heads, a coupling bar projecting from one of the draw heads, cooperating

jaws mounted upon the opposite draw head for engagement with the coupling bar, the said jaws being formed with corresponding cam slots, and a wedge shaped plate received within the slots and adapted to cooperate therewith to move the jaws into an inoperative position.

3. In a car coupler, the combination of a pair of draw heads, a coupling bar projecting from one of the draw heads, cooperating jaws mounted upon the opposite draw head for engagement with the coupling bar, the said jaws being formed in their opposite faces with corresponding cam slots and being also formed with offset portions, springs interposed between the said offset portions of the jaws and the draw head for moving the jaws normally in an operative position, and a wedge shaped plate mounted within the cam slots and adapted to cooperate therewith to separate the jaws.

In testimony whereof we affix our signatures in presence of two witnesses.

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