

(No Model.)

A. W. BALL.
CAR COUPLING.

No. 495,954.

Patented Apr. 25, 1893.

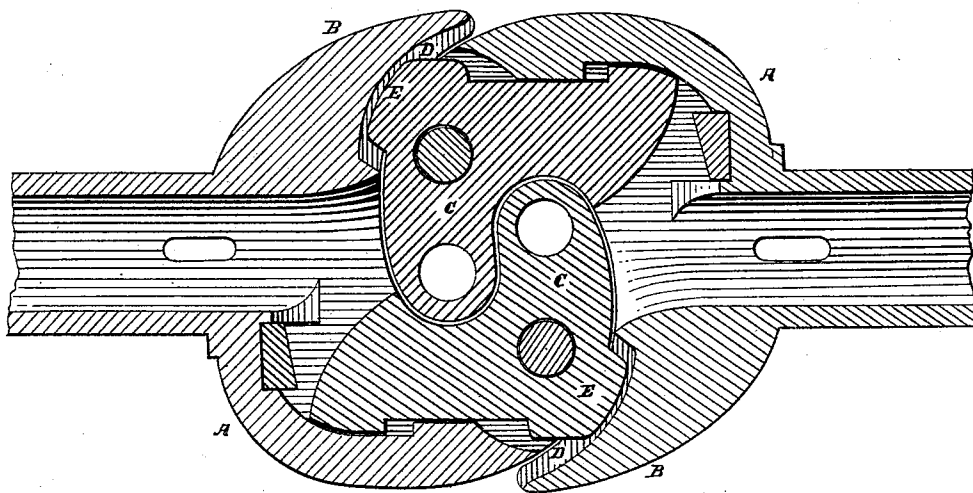
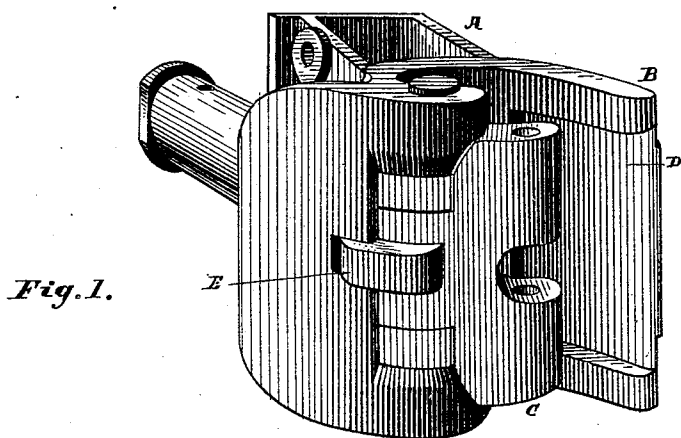


Fig. 2.

Witnesses

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UNITED STATES PATENT OFFICE.

ARTHUR W. BALL, OF GALION, OHIO.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 495,954, dated April 25, 1893.

Application filed November 1, 1892. Serial No. 450,602. (No model.)

To all whom it may concern:

Be it known that I, ARTHUR W. BALL, a citizen of the United States, residing at Galion, in the county of Crawford and State of Ohio, have invented a certain new and useful Improvement in Car-Couplers, of which the following is a specification.

My invention has relation to improvements in that class of couplers, ordinarily known as "vertical plane" couplers, and in which each coupler has a curved guard arm, and a horizontally-rocking knuckle; the union of two couplers being effected by the rocking knuckles interlocking, and being retained in that position. With the utmost care in designing, constructing and management; these couplers, known in use as "draw-heads," become accidentally detached from the car, either by being broken off, or pulled out, and falling upon or between the rails of the track present an obstacle to the passage of the following cars, resulting in damage or derailment, and often with loss of human life.

The object of my invention is to prevent this result, by providing means whereby the draw head of one car, whether broken off or pulled out, shall be held and supported by the draw head of the car with which it is connected.

To the aforesaid object my invention consists in the peculiar and novel construction, arrangement and combination of parts hereinafter described and then specifically pointed out in the claims, reference being had to the accompanying drawings, forming a part of this specification.

In the accompanying drawings, in which similar reference letters indicate like parts in the different views, Figure 1, is a perspective view of a draw head or coupler, embodying my invention; and Fig. 2, a central horizontal section of two couplers united, and illustrating my invention.

As my invention is applicable to any of the various couplers embodying the general features hereinbefore referred to, I have selected for the purpose of illustration a style known to the trade as the Janney coupler.

In the drawings, A is the drawhead, having the inwardly curved guard arm B, and having hinged to it the knuckle C. The inner face of the guard arm B, has a recess D,

conforming generally with said inner face, and having a depth of from one to three inches, depending upon the closeness with which the knuckle of the opposite coupler fits therein, and less in vertical height than said knuckle. On the back of the knuckle is a lug E, arranged to enter the recess of the opposite coupler, and less in vertical height than said recess, so as to permit of vertical movement as the two couplers rock by the motion of their respective cars, a notch being formed in the draw head to permit its entrance when the knuckle is rocked outward as the cars are uncoupled.

In operation, when the two couplers are united, and the knuckles interlock, as shown in Fig. 2, the lug of each knuckle rests in the recess of the guard arm of the opposite coupler. Hence it will be apparent, that if one coupler becomes detached from its car, as by breaking or pulling out, as its movement to become disengaged from the opposite coupler must be vertical, its descent will be arrested by the lug of its knuckle encountering the lower shoulder of the recess of the opposite guard arm, and it will be thus suspended, and carried with the coupler to which it is attached, instead of falling on the track.

I claim as my invention—

1. An improved coupler of the class designated, having a recess in the inner face of the guard arm adapted to receive a projecting lug on the knuckle of an opposite coupler, and a projecting lug on the outer face of the knuckle, adapted to enter a recess in the guard arm of an opposite coupler, substantially as shown, and for the purpose specified.

2. In a coupler of the class designated, the combination with the draw head having the curved recessed guard arm, and having a notch to permit the passage of the lug of the knuckle, of the rocking knuckle, having a projecting lug on its outer face, substantially as shown and described, and for the purpose specified.

In testimony that I claim the above I hereto set my hand.

ARTHUR W. BALL.

In presence of—

J. W. COULTER,
ADAM TROUTMAN.