

UNITED STATES PATENT OFFICE.

DAVID KENNEDY, JR., OF ERIE, PENNSYLVANIA.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 302,263, dated July 22, 1884.

Application filed May 7, 1884. (No model.)

To all whom it may concern:

Be it known that I, DAVID KENNEDY, Jr., a citizen of the United States, residing at Erie, in the county of Erie and State of Pennsylvania, have invented a new and useful Improvement in Car-Couplers, of which the following is a specification.

My invention relates to improvements in car-couplers in which the coupling-pins are raised by arms or levers; and the objects of my improvements are, first, to reach the pin by a peculiarly-constructed three-armed rod-frame reaching to the sides and top of the car, rising to a fixed limit and against a spring which compels the pin to drop suddenly into the link; second, to connect this rod to the coupling-pin by a slide on which the pin, by the eye in its head, has a horizontal longitudinal motion, to adapt the arrangement to the motion of the draw-head against its springs; third, by means of a movable face-plate over the entire draw-head, to adapt the coupler to cars of different construction and height, a slide from the movable draw-head uncovering the hole for the pin when the cars come together. I attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of the coupler. Fig. 2 is a horizontal section on the line *yy*, Fig. 3; Fig. 3, a vertical longitudinal section with the coupling-pin elevated as the cars approach for coupling; Fig. 4, a like section with the heads in contact and the coupling-pin dropped; Fig. 5, a side elevation of a modified construction of the coupler; Fig. 6, a vertical transverse section on the dotted line *xx*, Fig. 5; Fig. 7, a vertical longitudinal section of the coupler somewhat modified.

A is the body of the car; B, the coupling; C, the head of the coupling; C', the mouth of the same; C'', the dividing-rib in the same; D, the movable face-plate; E, the coupling-pin; F, the link; F', solid end of the link having a hole therein; G, face-plate springs; H, the ordinary coupling; I, the trip-plate closing the opening for pin E when the plate is out from the draw-head, and holding the pin as in Fig. 3; J, Fig. 7, spring holding plate D' away from the draw-head; G', flat

spring for operating the face-plate *d*, Fig. 5; *e*, eye in the head of the coupling-bolt; *d*, Fig. 2, main guide-rods; *d'*, guide-rods; *d''*, pins in guide-rods; *d'''*, guide-arms which are dovetailed in the coupling-head; *c*, Fig. 5, stop-pin; D', Fig. 7, joint of face-plate; 10 12, operating arms of the coupler; 9, hinged section of the coupling-rods which lifts the pin *e*, and along the end of which the pin slips to accommodate the compressions and reactions of the draw-head; 13, slides holding the rods 10; 18, angle stop-block to prevent the arms 10 12 from lifting the pin *e* too high; 16, spring against which section 9 presses to compel a quick descent of the pin when the trip-plate I uncovers the pin-hole; 14, braces in the rod-frame by which frame the coupling-pin is reached; 11, handle of this frame at the top of the car.

In case it is necessary to remove the pin E, the angle-stop 13 will be turned up on its pin, giving room for rod 12 to be lifted sufficiently high for the purpose.

In case of coupling with an old coupler, the solid end of the link is placed in the old coupler to prevent the link from sliding.

The coupler is operated by the handles of the rods 10 12 at either side or the top of the car.

The face-plate D, operating the slide I, covers the whole large face of the bumper, so that bumpers of other construction or of a different size striking higher or lower will still operate this coupler and cause the pin to drop into the link.

What I claim is—

1. In a car-coupling, the combination of the frame 10 11 12 14, with the hinged pin-carrier 9.
2. The arm 9, hinged to the car, carrying the pin E, and operated by the frame-lever attached between the hinge 15 and the pin E.
3. The spring 16, in combination with the hinged arm 9 and coupling-frame 10 11 12.
4. The stop 18, in combination with the spring 16, arm 9, and frame 10 11 12 14.

DAVID KENNEDY, JR.

Witnesses:

J. W. WETMORE,
J. R. SHERWOOD.