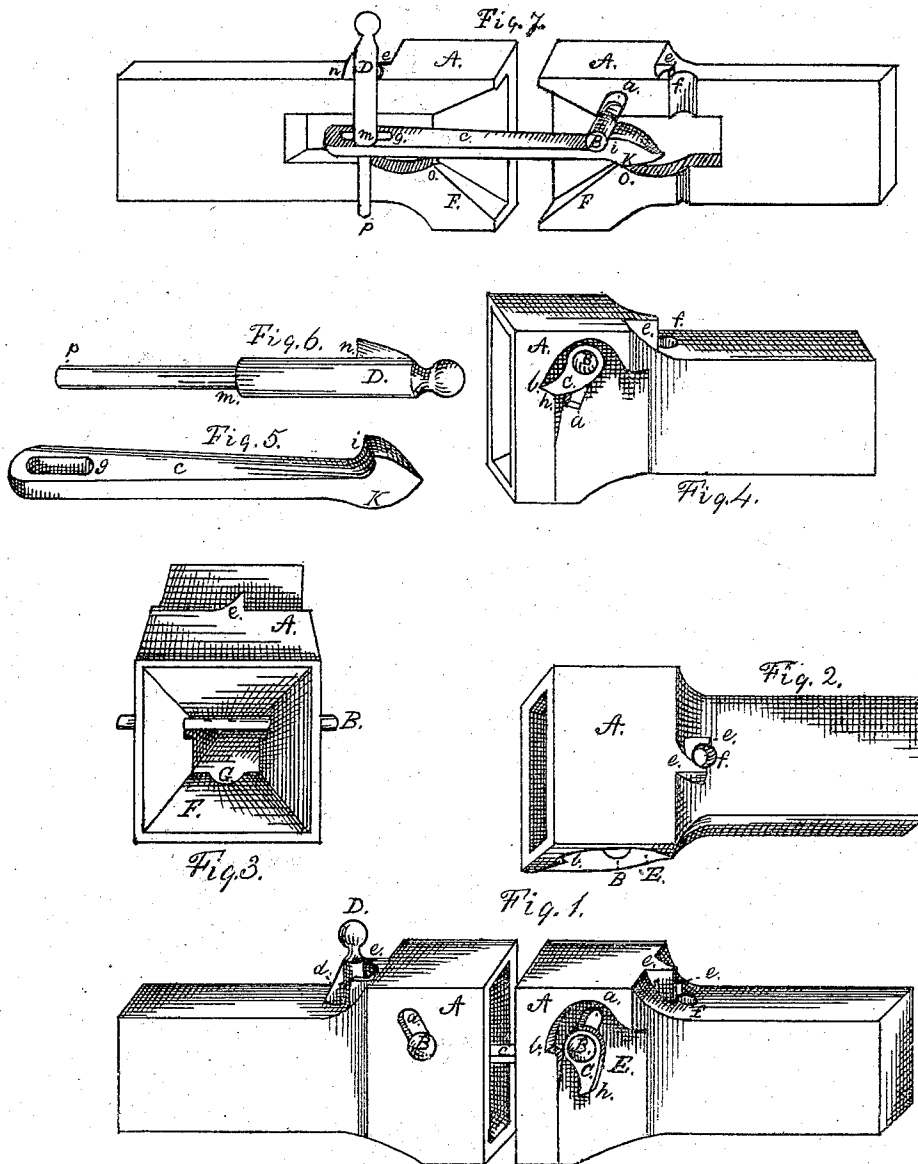


J. M. WELLS.
Car-Couplings.

No. 144,298.

Patented Nov. 4, 1873.



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UNITED STATES PATENT OFFICE.

JAMES M. WELLS, OF PAINESVILLE, OHIO.

IMPROVEMENT IN CAR-COUPPLINGS.

Specification forming part of Letters Patent No. **144,298**, dated November 4, 1873; application filed April 18, 1873.

To all whom it may concern:

Be it known that I, JAMES M. WELLS, of Painesville, in the county of Lake and State of Ohio, have invented certain Improvements in Car-Couplings, of which the following is a specification:

The first part of my invention relates to the combination of the horizontal catch-rod B with the bumper-head A, the position of said rod being across the interior opening of the bumper, and passing through the slots *a*, which are formed in the sides of the bumper. The object of said rod is to hold a hooked shackle-bar when the cars are coupled by dropping down in front of the hook *i*, which is formed on the end of the shackle-bar *c*. Secured on both ends of the catch-rod B are the pawls C, the object of which is to secure the catch-bar up out of the way of the shackle-bar in uncoupling the cars, when the lower ends of the pawls are placed in the notches *b*, which are formed in the sides of the bumper, the slots in the sides of said bumper allowing the ends of the catch-bar to be raised. The second part of my invention relates to the combination of the pin D with the planes *e e* and fulcrum O. Said planes are formed on the upper surface of the bumper and near the pin-hole. The object of the planes is to support the pin D, said pin having the projection *n* formed on it near its upper end. Said projection, when placed on the upper plane, takes the weight of the pin off of the inner end of the shackle, thereby lowering the outer end of said shackle. The fulcrum O forms a bearing for the under side of said shackle. This position is assumed when the coupling car is higher than the car to be coupled to. When the projection rests on the upper surface of the bumper, the inner end of the shackle receives all the weight of the pin; thereby its outer end is raised. The lower end of said pin, being of a smaller diameter for about half its length, allows of the formation of the shoulder *m*. Said shoulder rests on the upper surface of the shackle; thus, by the position of the projection on the pin on said planes, it controls the outer end of the shackle. When the projection is on the lower plane, the shackle is in a horizontal position.

Figure 1 is a side elevation of the coupling, and embodies my invention. Fig. 2 is a view showing the upper surface of the bumper, and shows the planes *e e*; Fig. 3, end view of bumper, showing the fulcrum F and catch-rod B. Fig. 4 shows the catch-rod raised by securing the pawls in the notches *b*; Fig. 5, view of hooked shackle-bar; Fig. 6, view of pin D; Fig. 7, vertical section, showing the fulcrum O and the arrangement of the interior of the bumpers.

A A are the bumpers, one of which has the catch-rod B passing through it horizontally, and across, about equidistant from the front opening and the pin-hole. The bar plays up or down in the slots *a*. Said slots are formed on an angle to permit the raising of the rod in uncoupling the cars. The rod is held, when raised up, by the pawls *c*, which are secured on each end of the rod by placing the lower end *h* of said pawls in the notches *b*, which are formed in the sides of the bumper. The pin D, as shown at Fig. 6, has the projection *n* formed near its upper end for the purpose of relieving the slotted end of the shackle-bar from its weight, when the projection on the pin is placed on the upper plane *e*, which is shown at Fig. 2. By that act the hooked end of the shackle-bar falls below the horizontal line. When it is wished to raise the hooked end of the shackle-bar, the projection on the pin is turned until it rests on the upper surface of bumper; then the whole weight of the pin bears on the slotted end of the bar by the action of the shoulder *m*. Below the shoulder the pin is of a less diameter than it is above.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The combination, with the bumper A, notched at *b*, of the catch-rod B and pawls C, as and for the purpose described.

2. The combination, with the bumper A, having slot *a*, notches *b*, fulcrum O, and planes *e e*, of the pin D, all constructed as described.

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Witnesses:

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