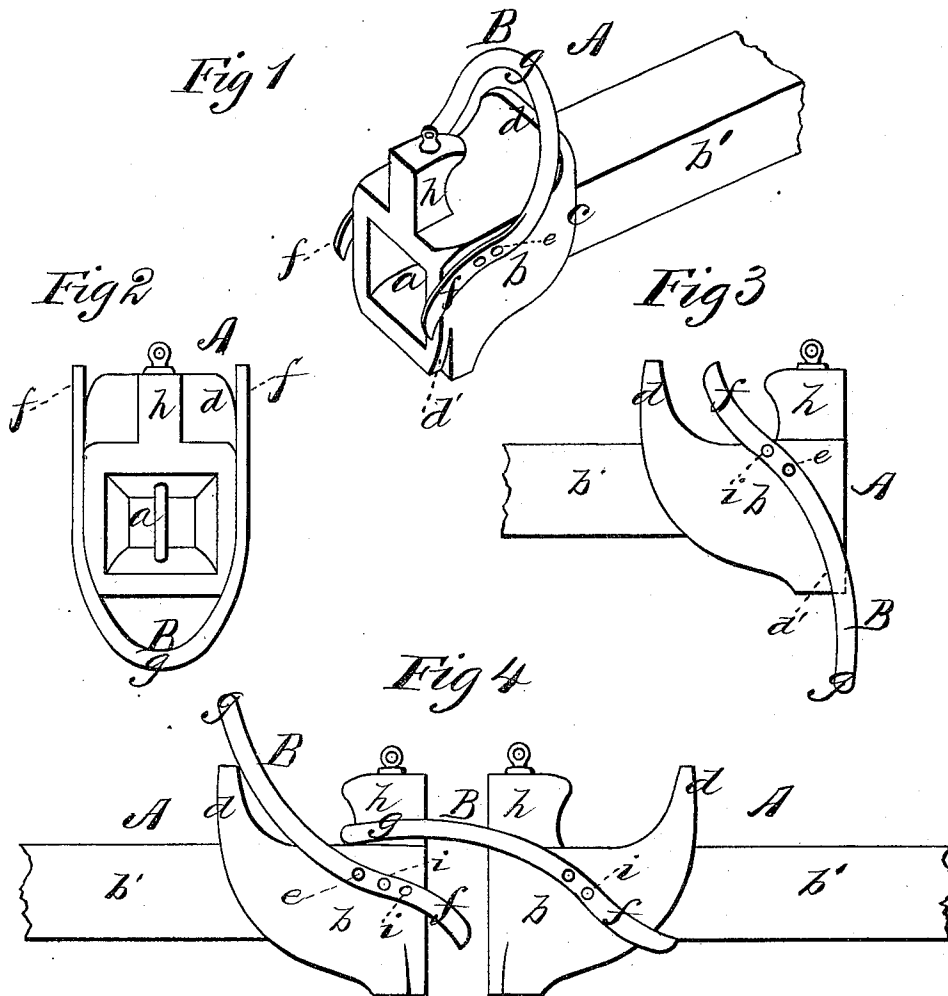


E. S. PERRY & R. H. DOWLING.

CAR-COUPLING.

No. 174,847.

Patented March 14, 1876.



WITNESSES

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ELKANAH S. PERRY AND ROBERT H. DOWLING, OF NEWARK, OHIO.

IMPROVEMENT IN CAR-COUPPLINGS.

Specification forming part of Letters Patent No. **174,847**, dated March 14, 1876; application filed October 16, 1875.

To all whom it may concern:

Be it known that we, ELKANAH S. PERRY and ROBERT H. DOWLING, of Newark, in the county of Licking and State of Ohio, have invented a new and valuable Improvement in Car-Couplings; and we do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawing is a representation of a perspective view of our car-coupling, and Fig. 2 is an end view thereof. Figs. 3 and 4 are side views of the same.

This invention has relation to improvements in car-couplings; and it consists in combining, with a draw-bar having upon its upper horizontal front edge a raised hook, a vertically-vibrating metallic bail, pivoted to the sides of the draw-bar, and provided with operating-arms extending beyond the pivot, whereby means are provided for coupling cars either automatically or by hand, as will be hereinafter more fully explained and claimed.

In the annexed drawings, the letter A represents a metallic draw-bar, which is, preferably, provided with a chamber, *a*, of the usual form, the purpose of which will be hereinafter made clear. The head *b*, in which this chamber is formed, is provided with a reduced shank, *b'*, by means of which it is secured to the car in the customary manner, and a shoulder, *c*, is formed, which, being extended upward, forms a nose, *d*, above the upper surface of the draw-bar, which, abutting against the frame-work of the car, arrests the backward movement of the said draw-bar. It is also provided upon its upper front edge with a raised hook, *h*, having a concave rounded rear edge, the object of which will be hereinafter apparent.

B represents a strong metallic bail, which is pivoted, by means of a rod, *e*, to the sides of the draw-bar. This bail is provided with operating arms or extensions *f* at each end, which project above the upper edge of the draw-bar, when it is allowed to hang below the said draw-bar, in the position shown in Fig. 2, and which are bent rearwardly, so as in no wise to interfere with the functions of hooks *h*. This bail has free vertical vi-

bration in relation to the draw-bar, and is capable of being thrown upward and backward, as shown in Fig. 1, when its free rounded end will rest upon the raised nose *d*, with the arms or extensions *f* projecting beyond the vertical face of the draw-bar, as shown in Fig. 1, or of being thrown downward and under, when it will abut against a shoulder, *d'*, on each side of the said draw-bar, as shown in Fig. 2, thus causing it to be recessed into its sides, and preventing it from being casually battered out of shape by the coming together of the draw-bars in the act of coupling. The bail B being thrown up and back into the position shown in Fig. 1, its arms or extensions will be struck by the front of the draw-bar of the car approaching to be coupled, and will be thrust backward with considerable violence, causing the looped end *g* of the bail to be vibrated to the front beyond the vertical plane of the pivot *e*, when it will fall over the hook *h* of the said car, and thereby effect a coupling. This result may be obtained by hand when desired, by first bringing the cars together, and then thrusting arms or extensions *f* backward, the effect being precisely as above described. Bails B are provided with spaced perforations *i*, which, pivot *e* being removable, will allow the said bails to be lengthened or shortened when, from any cause, it proves necessary or desirable. The front edge of chambered draw-bar A is provided with a vertical perforation, extending through hook and the lower edge of the draw-bar, which, should bail B get out of order, will allow the usual pin-and-link couplers to be employed. These last may also be used at the same time as the bails B, when, as in ascending a grade, a great strain is expected.

What we claim as new, and desire to secure by Letters Patent, is—

The adjustable vertically-vibrating bail B, having arms or extensions *f*, in combination with a draw-bar, A, having hook *h*, substantially as specified.

In testimony that we claim the above we have hereunto subscribed our names in the presence of two witnesses.

ELKANAH S. PERRY.
ROBERT H. DOWLING.

Witnesses:

JOEL M. DENNIS,
EDSON B. DENNIS.