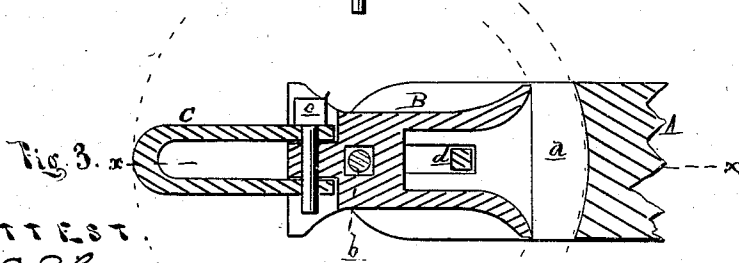
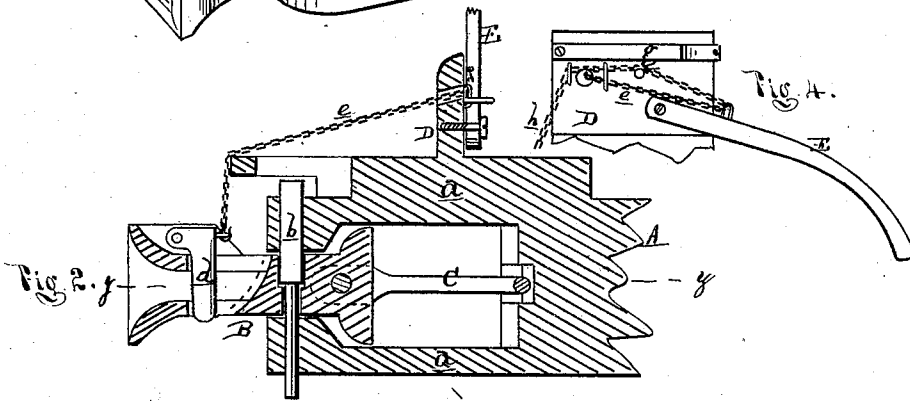
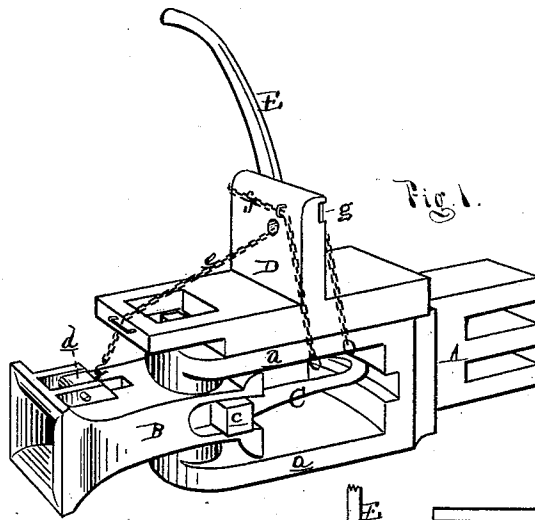


J. A. RICHARD.
Car-Couplings.

No. 149,250.

Patented March 31, 1874.



ATTEST.
B. E. Huestis
E. A. Young

INVENTOR.
J. A. Richard
 By Attorney
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UNITED STATES PATENT OFFICE.

JOSEPH A. RICHARD, OF COLUMBIAVILLE, MICHIGAN.

IMPROVEMENT IN CAR-COUPPLINGS.

Specification forming part of Letters Patent No. **149,250**, dated March 31, 1874; application filed December 16, 1873.

To all whom it may concern:

Be it known that I, JOSEPH A. RICHARD, of Columbiaville, in the county of Lapeer and State of Michigan, have invented an Improvement in Car-Couplings, of which the following is a specification:

This invention has for its object to furnish a car-coupling which can be operated to uncouple cars without going between them, and which will automatically couple two cars on their coming together. The invention consists in a reversible buffer pivoted in the jaws of a draw-bar, and having secured to its base a stationary link, which may be brought around in front to couple with an approaching car fitted with either a similar coupling device or an ordinary draw-head, and in the arrangement of certain devices for operating the pin in uncoupling.

Figure 1 is a perspective view. Fig. 2 is a longitudinal vertical section at *x x* in Fig. 3, which is a horizontal section on the plane *y y* in Fig. 2, the buffer being reversed from the position shown in Fig. 2. Fig. 4 is an elevation of the uncoupling-lever and its attachments from the rear.

In the drawing, A represents a draw-bar, having two projecting jaws, *a a*, at the front end, between which is inserted the base of an open-mouthed buffer, B, which is pivoted therein by a pin, *b*, in such a manner that it can be swung in a horizontal plane. The upper half of said pin is square in section, and passes through a square slot in said buffer, so that it may be locked when projecting from the draw-head; or, by partially withdrawing the pin, the buffer may be swung back between the jaws and there locked, as seen in Fig. 3, in this case bringing to the front a clevis, C, secured to the base of said buffer by a transverse key, *c*. The buffer is slotted at top and bottom, and in the upper slot is pivoted at its angle an inverted L-shaped coupling-pin, *d*. When the clevis C of an opposing car, or an ordinary

link properly sustained, enters the buffer it pushes back the long arm of this pin until it passes by, when the pin drops into the clevis or link, and thus couples the two cars together.

To uncouple the cars, a plate, D, is transversely disposed on top of the draw-bar, to the rear side of which plate is pivoted the lower end of a lever, E, from which a cord or chain, *e*, is led through an opening at the farther end of the plate, thence forward through suitable guides, and is hooked into an eye at the end of the short arm of the coupler. By throwing down the lever, which can be done directly at one side of the train, the cars will thus be uncoupled. To operate the lever from the other side of the train, a cord or chain, *f*, is led from said lever around the rear end of the plate and through suitable guides to the other end of said plate, where it can easily be reached and pulled to throw down said lever; but a preferable way is to provide a leaf-spring, *g*, set into a groove in the plate near the top, and having an offset bent into it to catch the lever and hold it in nearly a vertical position. The cord *f* is then fastened to the free end of said spring, and by pulling on it the spring will be drawn away from the lever, which will then fall of its own weight, and thus uncouple the cars, which arrangement is shown in Fig. 4. A cord, *h*, is attached to the lever, so that it can be raised from the farther side of the train.

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

The combination, with the draw-bar A, having plate D, of the buffer B, clevis C, coupler *d*, lever E, cords or chains *e f h*, and spring *g*, all constructed to operate substantially as described, for the purpose set forth.

JOSEPH A. RICHARD.

Witnesses:

BENJ. J. HARRIS,
LEIGHTON RICHARD.