

R. HEMMING.
Car Coupling.

No. 5,354.

Patented Nov. 6, 1847.

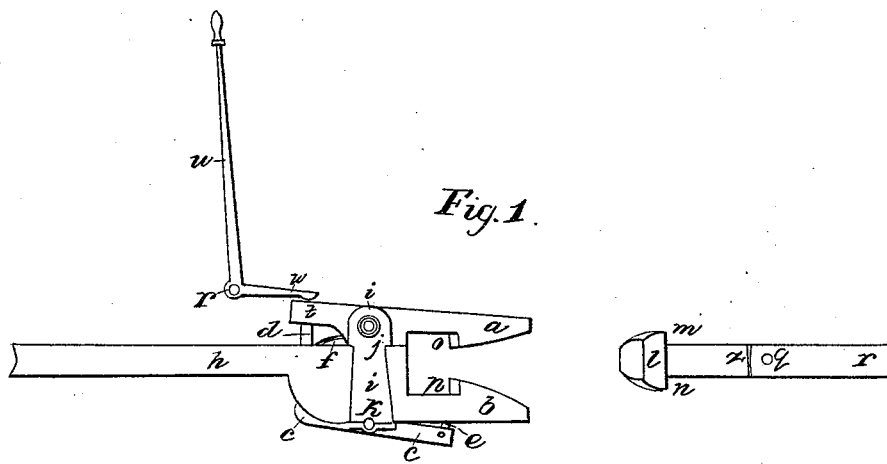


Fig. 1.

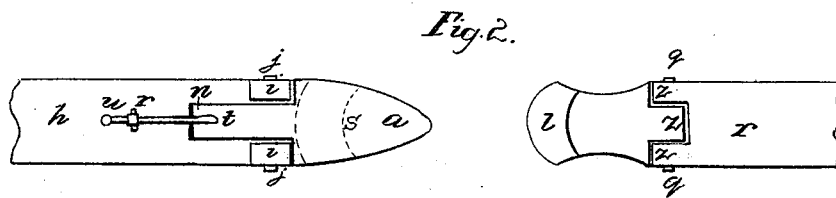


Fig. 2.

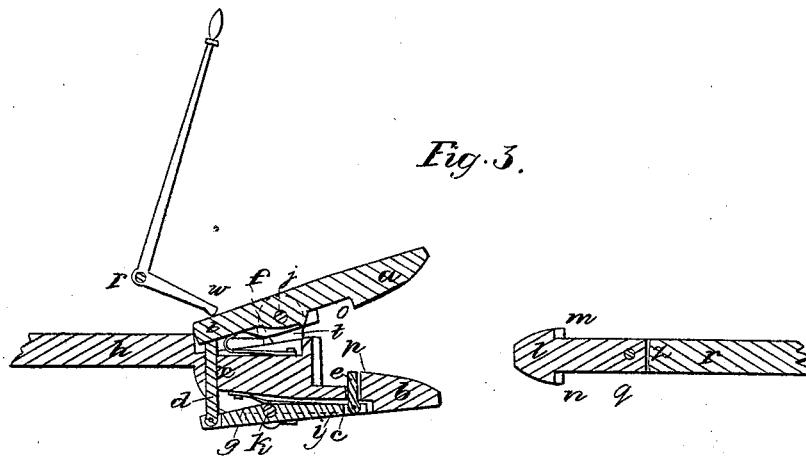


Fig. 3.

UNITED STATES PATENT OFFICE.

RICHARD HEMMING, OF BOSTON, MASSACHUSETTS.

COUPLING FOR CARS.

Specification of Letters Patent No. 5,354, dated November 6, 1847.

To all whom it may concern:

Be it known that I, RICHARD HEMMING, of Boston, in the county of Suffolk and State of Massachusetts, have invented a new and
5 Improved Mode of Disconnecting Railroad-Trains; and I do hereby declare that the following is a full and exact description.

Letters Patent of the United States were granted your petitioner on the 11th day of
10 October, 1845, for a safety link which was to be self operating and instantaneous in its effect, in order to obviate the liability to danger from the locomotive or forward car of a train being accidentally thrown
15 from the track, by the deviation from the straight line produced by such displacement, the link at once disconnected itself, in the manner shown in the specification attached to said Letters Patent.

20 The object of the present invention which is to be applied to the above-named safety link, is to enable the brakeman or conductor of a train, to disconnect one or more cars from the train, or the whole train from the
25 engine, at will, and instantaneously without incurring the risk, or inconvenience attendant upon the present system of coupling.

By reference to the drawings, let Figure 1, represent a side view of the link, with
30 the disconnecting apparatus attached. Fig. 2, represents a plan or top view. Fig. 3, represents a vertical section, passing longitudinally through the link.

(*a* and *b*) represent what are denominated
35 the jaws of the link, which receive the tongue (*l*), being that portion of the link which is attached to the other car of the train. When the tongue (*l*) has been received it is held in its place and attaches
40 the two cars together by means of the two shoulders (*o* and *p*), attached to the jaws, and the shoulders (*m* and *n*), attached to the tongue, therefore while the jaw (*a*), is firm in its position, the tongue (*l*), can not
45 be freed from the jaws (*a* and *b*), unless by a motion in the direction of the dotted arc (*s*), Fig. 2, and while the cars remain upon the track there will not be sufficient deviation from a straight line, even on the sharp-
50 est curves, to free the tongue (*l*), in order to release this we must cause the jaw (*a*), which is movable to a limited extent about the axis (*j*), to be raised at its outer end, while at the same moment we raise the
55 tongue (*l*), sufficiently far to free the shoulder (*n*), from the shoulder (*p*), of the jaw (*b*). This we do by means of the right

angled lever (*u*), affixed to the truck of the car at the fulcrum (*v*), about which it has a limited motion, the handle or longer arm 60 of the lever, comes up beside the hand-rail of the car, at the end of the platform, within reach of the conductor or brakeman, by throwing it forward the shorter end (*w*), presses upon the end (*q*), of the jaw (*a*), 65 and by depressing it elevates the outer end of the jaw, the motion being around the axis (*j*) which has its supports in the pedestals (*i*, *i*), these pedestals are firmly attached to the block (*h*), which is connected 70 by means of a strap of iron, to the draw spring usually employed to prevent a sudden jerk on starting the car.

When the end (*t*), of the jaw (*a*), is depressed, it thrusts the bolt (*d*), directly 75 downward, this bolt passes through the hole (*x*), in the link, which forms its guide, the lower end is attached to the end of the lever (*c*), moving about the axis (*k*), at the other end of the lever is attached the bolt (*e*), 80 passing through the hole (*f*), in the jaw (*b*). The bolt (*d*), being depressed elevates the bolt (*e*), just far enough to lift the shoulder (*n*), of the tongue (*l*), free from the shoulder (*p*), the tongue (*l*), is then at liberty, 85 and the jaws and levers are in the position represented in Fig. 3. The springs (*f* and *g*) are compressed; upon releasing the lever (*u*), the springs immediately recover their elasticity and force back the jaw (*a*), and 90 the lever (*c*), and bolts (*d* and *e*), into the position shown in Fig. 1.

In order that the tongue may be lifted by the bolt (*e*), it is jointed at (*z*), and has sufficient motion around the axis (*q*), to 95 allow its end to be lifted clear of the jaw (*b*). This link is also self attaching, for when two cars come together the tongue forces open the jaws, and when it has entered them the springs close them upon it 100 thus making a firm connection between the cars.

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

An apparatus for disconnecting railroad 105 cars, by the use of the movable jaw (*a*), the lever (*c*), and the bolts (*d* and *e*), operating in connection with the lever (*u*), and the springs (*f* and *g*), in the manner above described.

RICHARD HEMMING.

Witnesses:

FRANK DARRACOTT,

C. A. S. RICHARDSON.