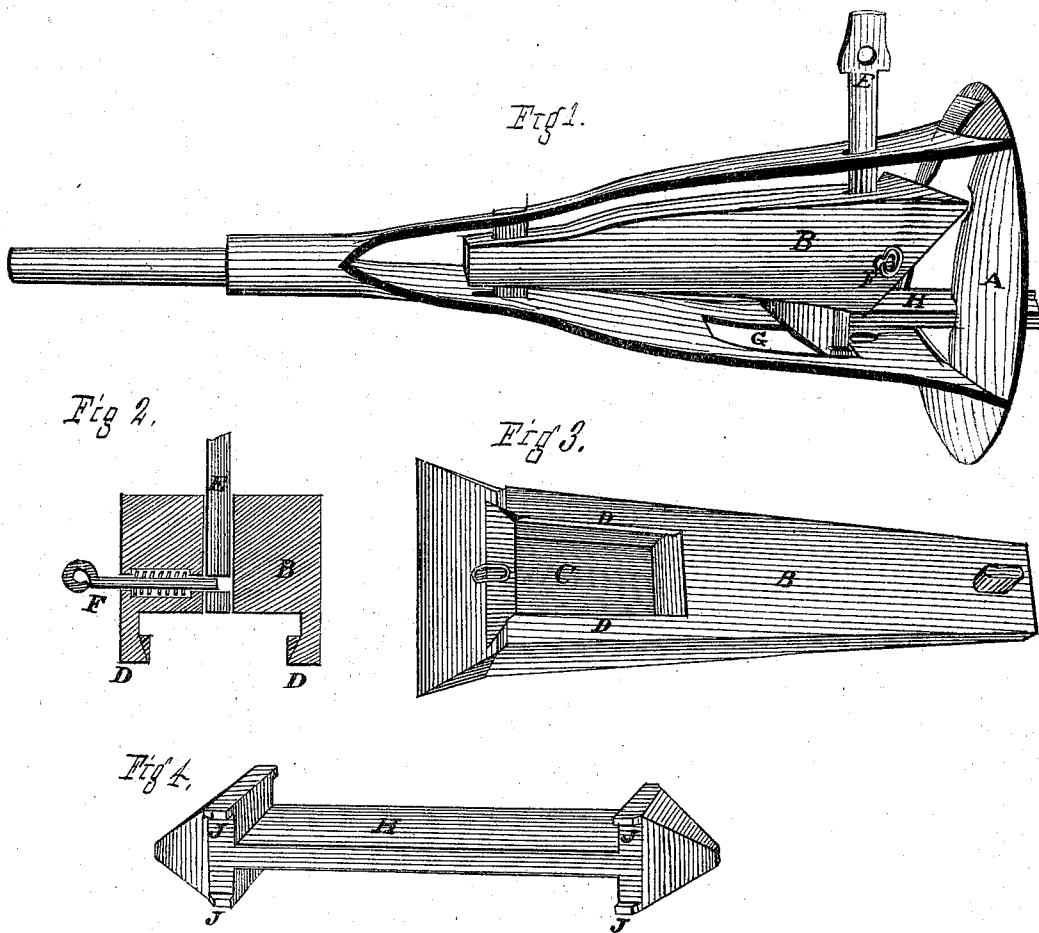


HENRY E. MARCHAND.

Improvement in Car-Couplings.

No. 126,973.

Patented May 21, 1872.



WITNESSES;
Cyrus M. Clardy
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HENRY E. MARCHAND, OF LOUISVILLE, KENTUCKY, ASSIGNOR OF ONE-HALF HIS RIGHT TO ROBERT E. CROSS, OF SAME PLACE.

IMPROVEMENT IN CAR-COUPPLINGS.

Specification forming part of Letters Patent No. 126,973, dated May 21, 1872.

Specification describing an Improved Car-Coupling, invented by HENRY E. MARCHAND, of Louisville, in the county of Jefferson and State of Kentucky.

This invention is an improvement in self-acting couplings; and it consists in the combination of a recessed draw-head with a recessed catch and a link; also, in the combination, with said catch, of a sliding pin and a spring fastening device, all as hereinafter set forth.

In the drawing, Figure 1 is a perspective view of the coupling, showing the interior arrangement of the catches. Fig. 2 is an end view of the upper catch, showing the flanges on the inside of the hole. Fig. 3 is a flat view of the under side of the catch, showing the shape of the hole therein. Fig. 4 is a perspective view of the coupling-link, showing the projections on the sides of the heads.

Similar letters of reference indicate like parts in the several figures.

The box or bumper part of this device is made of wrought-iron, consisting, first, of two flat bars, about four inches wide, one inch thick, and about two feet long. These bars are tapered down to about three inches wide at the back end, and then welded to a round piece of iron about eighteen inches long and two inches in diameter. The ends of the last-named flat bars, when welded to the round piece of iron, form a shoulder around it, which is used as a rest for the end of a spiral spring used on it as a means of relieving the shock when the cars are run together in coupling. The back end of this spring rests against a shoulder in the end of the box in which it works, which box is kept in its place by means of a pin through the round part. The two flat bars forming the jaws of the bumper or box are slightly opened from the back end to about the middle, in order to give room for the trigger or catch devices therein, while the remaining part runs up to the head nearly an equal distance apart. One of these bars has a hole, G, cut through it to correspond with the size and shape of the head of the coupling-link, while both have a flange turned outward on the end, by means of which they are secured to the bumper-head A. This head is made of wrought-iron, about ten inches in diameter and one inch thick, and dished on the outside

somewhat similar to a common saucer, except that the edges are thinned down slightly and turned back in order to present more bearing-surface to receive the shock when the cars come together to be coupled. This bumper-head has a hole in the center to correspond with the size and shape of the head of the coupling-link, so as to permit it to enter easily and vibrate somewhat in the hole. Immediately back of the bumper-head there is a trigger-catch, B, made of wrought-iron, about two inches thick and four inches wide, and about fourteen inches long, and tapered from the center to the back end, leaving the latter about one-half the original size. There is a bolt passing through the back end of the catch, by means of which it is hung on the bumper. The large end of the catch is slightly upset, so as to make it wider at the end for about one inch back, and is beveled on the under side of the end in order that the head of the coupling-link may raise it easily. Just behind the beveled end there is a hole cut through the catch, but closed on the top by a piece of sheet-iron. This hole is sufficiently large to receive the head of the coupling-link easily, and it is made to act as a catch therefor. The inside of the hole in the catch has small flanges D D projecting inward at the sides, for the purpose of raising the link-head out of the lower catch to detach it. These flanges slide under projections J on the sides of the link-heads, and when raised will raise the link at the same time and permit it to be drawn out. This coupling-link H is made of wrought-iron, about one inch thick and two inches wide, and of the required length, and has a head on each end, with the shoulders on the flat sides, and tapered down at the ends somewhat similar to an arrow-head, and has small projections at each corner, on the sides of the heads, sufficiently strong to raise the link out of the catch in the bar below. This is effected by means of a pin, E, fastened in the top of the catch, with the end extending through the box above, and having an eye in the top for convenience in operating it. This pin is also made so that it can be detached from the catch and dropped down through the lower bar of the coupling, for convenience, when necessary, to be used for coupling cars with the old style of links. This last-named coupling-

pin E has a spring-catch, F, in the side of the main catch, in order to hold said pin fast when not used in coupling with the ordinary link.

To couple the cars it is only necessary to back them together, the whole operation of the couplings being automatic, not even requiring assistance to direct the link. The uncoupling is effected by raising the catch by means of the pin in the top of the box, which releases the link. When it becomes necessary to use the old style of link, the pin in the catch is unfastened and permitted to drop down through the bottom of the box, so as to be used in the same manner as the old style of link-couplings now in use.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The draw-head A, having the recess G, in combination with the catch B, recessed as described, and the link H, constructed as described.

2. In combination with said catch B, the pin E and spring-catch F, substantially as described, and for the purpose set forth.

HENRY E. MARCHAND.

Witnesses:

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