

S. H. THOMAS, W. A. & M. E. HEARN.
Car-Couplings.

No. 152,054.

Patented June 16, 1874.

Fig. 1.

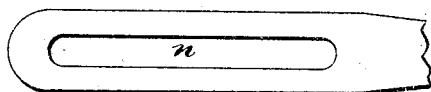
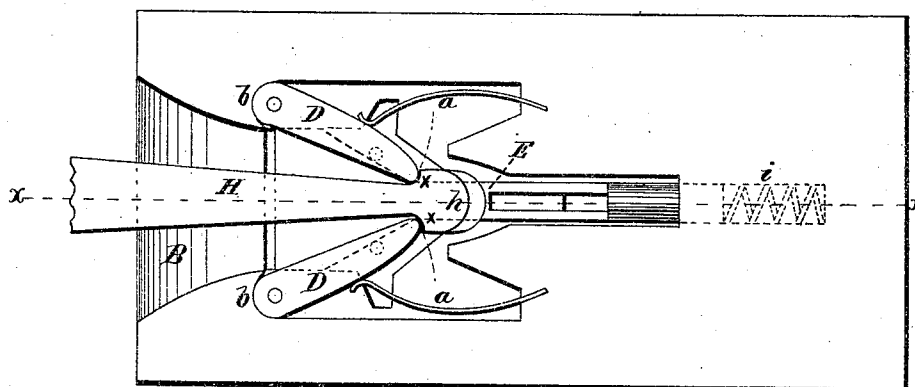


Fig. 2.

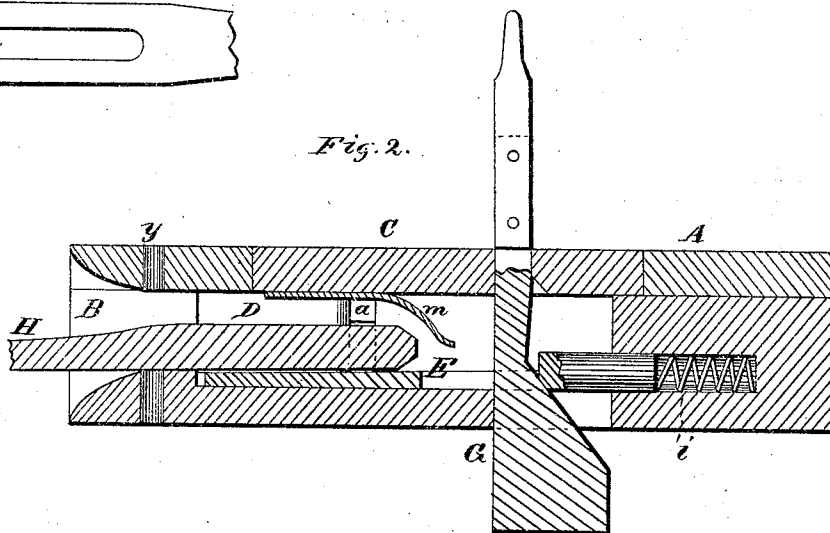
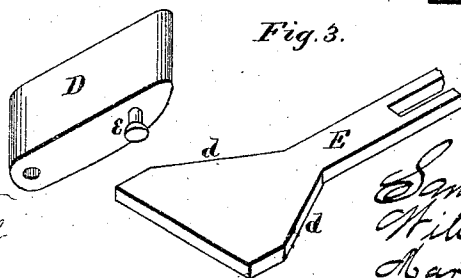


Fig. 3.



Witnesses:

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UNITED STATES PATENT OFFICE.

SAMUEL H. THOMAS, WILSON A. HEARN, AND MARTIN E. HEARN, OF
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IMPROVEMENT IN CAR-COUPPLINGS.

Specification forming part of Letters Patent No. **152,054**, dated June 16, 1874; application filed
May 9, 1874.

To all whom it may concern:

Be it known that we, SAMUEL H. THOMAS, WILSON A. HEARN, and MARTIN E. HEARN, of Dyer Station, county of Gibson and State of Tennessee, have invented certain new and useful Improvements in Self-Acting Car-Couplings, of which the following is a specification:

The nature of our invention consists in the construction and arrangement of a self-acting car-coupling, as will be hereinafter more fully set forth.

In the accompanying drawing, Figure 1 is a horizontal section of our car-coupling, showing the interior construction of the same. Fig. 2 is a longitudinal vertical section of the same through the line *x x*, Fig. 1; and Fig. 3 shows certain detached parts thereof.

A represents the bumper of a railroad-car, constructed as usual with an interior chamber and a flaring mouth, B. A part, C, of the top of the bumper is made removable, so that the interior parts can be readily gotten at when necessary in case of breakage or for other purposes. At the inner end of the mouth B on each side is pivoted a jaw, D, which extends backward into the draw-head, and said jaws are pressed inward toward each other by means of springs *a a*. At the points where the jaws D D are pivoted are formed shoulders *b b* in the draw-head, against which the front ends of the jaws will abut when any strain is upon their rear ends, so that thereby the strain is taken off from the pivots. In the bottom of the chamber in the draw-head is formed a suitably-shaped recess for the reception of a slide, E, the front end of which is enlarged, and has two inclined sides, *d d*, as shown in Fig. 3. Upon the under side, near the rear end of each jaw, is a headed or other pin, *e*, which two pins bear against the inclines *d d* of the slide E by the action of the springs *a a* upon the jaws. The rear end of the slide E is passed into a hole in the rear portion of the bumper, and in the same is inserted a spiral spring, *i*, the action of which throws the slide forward. The body of the slide E is slotted for the passage of a wedge-shaped key, G, which also passes through a slot in the bottom of the draw-head or bumper, and the shank of which passes up through a hole in the part C of the top of the draw-head. The upper end or shank of the key G is to be attached to a

suitable lever or other device, so as to be raised from either side of the car or from the top. H represents the coupling-bar, the end of which is formed with a spear-shaped head, *h*, so as to make shoulders *x x*. The bar H entering the mouth of the bumper, the head *h* will spread or separate the jaws D D until the head has passed their inner ends, when the springs *a a* throw the jaws inward so as to catch on the shoulders *x x*, which completes the coupling of the cars.

To uncouple the cars the key G is raised, which forces the slide E toward the rear, and the inclined sides *d d* thereof acting against the pins *e e* opens the jaws, so that the coupling-bar can be withdrawn. The spring *i* throws the slide E forward again. Within the bumper is a spring, *m*, to act on the inner end of the coupling-bar, and hold the same horizontally, so as to enter the opposite bumper. The front end of the bumper is provided with holes *y* for the usual coupling-pin, if, in case of breakage, it should become necessary to use such.

When our coupling is used on two adjoining cars the coupling-bar is provided with a head, *h*, at each end; but when one car has the ordinary coupling one end of the coupling-bar has an elongated slot, *n*, to form a link.

The coupling-bar may be straight or crooked, as required, according to the height of the cars.

Having thus fully described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. The jaws D D, pivoted and abutting against the shoulders *b b*, and provided with pins *e e*, in combination with the springs *a a*, and the slide E, having inclined sides *d d*, substantially as and for the purposes set forth.

2. The combination, with the slide E, of the spring *i* and wedge-shaped key G, substantially as and for the purposes set forth.

In testimony that we claim the foregoing as our invention we hereunto affix our signatures this 28th day of April, 1874.

SAMUEL H. THOMAS.
WILSON A. HEARN.
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Witnesses:

ABNER M. GRIER,
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