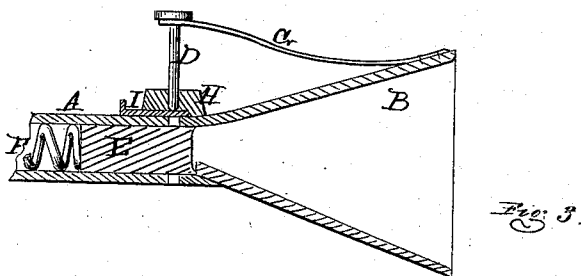
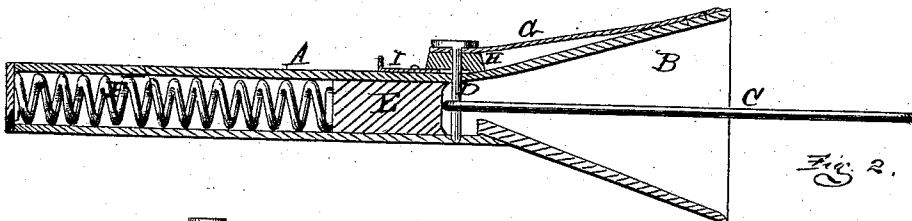
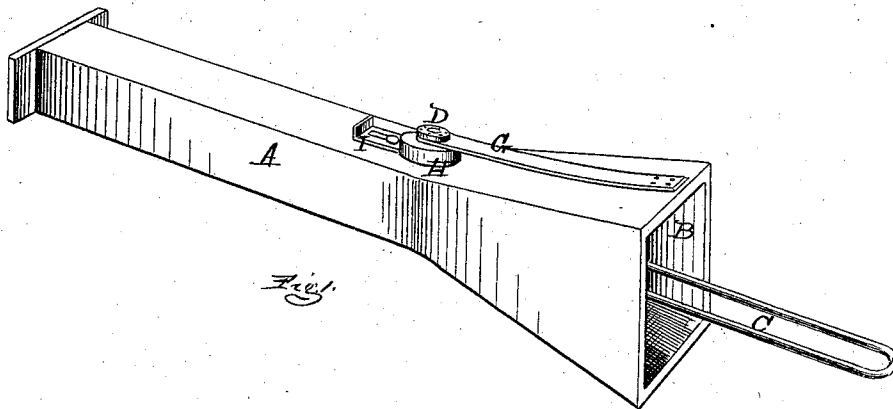


H. TREFRY.

Improvement in Car-Couplings.

No 116,238.

Patented June 20, 1871.



ATTEST

Myron A. Church
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INVENTOR

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UNITED STATES PATENT OFFICE.

HARVEY TREFRY, OF WINFIELD, MICHIGAN.

IMPROVEMENT IN CAR-COUPPLINGS.

Specification forming part of Letters Patent No. 116,238, dated June 20, 1871.

To all whom it may concern:

Be it known that I, HARVEY TREFRY, of Winfield, in the county of Ingham and State of Michigan, have invented a new and useful Improvement in Car-Couplings; and I do declare that the following is a true and accurate description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon and being a part of this specification, in which—

Figure 1 is a perspective view of my coupling, also showing the link. Fig. 2 is a side elevation with one side removed to show the internal construction. Fig. 3 is a section showing the use of the slide to hold the coupling-pin in position to prevent connecting the cars together.

Like letters refer to like parts in each figure.

Many lives are lost and many hands ruined by the ordinary methods employed in coupling railway cars where the men are required to place themselves between the cars to perform their work. The nature of this invention relates to the construction of what I term a safety-coupling, by means of which all danger to life and limb is avoided. The invention consists in a spring so arranged as to compel the coupling-pin to engage with the link when the latter is driven into the mouth of the draw-bar, in a slide suitably secured to the top of the draw-bar, so that it may be employed to prevent the pin from engaging with the link, when desired, all combined with a buffer-head and spring inclosed within the draw-bar, the whole arranged to operate as more fully hereinafter described.

In the accompanying drawing, A represents a draw-bar provided with the bell-mouth B, constructed with its sides so flaring that it will receive and guide the link C to the proper place to engage with the pin D, which is of the

usual construction. E is a buffer, having a horizontal motion within the draw-bar, and F is a spring, also within the draw-bar and in rear of the buffer E. When the pin is withdrawn so as to disengage with the link the spring F forces the buffer forward, when the pin rests upon the top of said buffer. When the link is driven into the draw-bar it strikes the buffer and compresses the spring until the buffer recedes and allows the pin to engage with the link. It frequently happens that the pin will not fall of its own gravity sufficiently quick to engage with the link before the rebound of the cars withdraws the link. To remedy this fault I employ a spring, G, suitably arranged to engage with the pin, so that when its lower end has been released from the buffer it will be forced to drop into the link at once. It sometimes occurs that several cars will be standing upon the track, some of which it is not desired to couple together. To prevent their coupling, under such circumstances, I cast or otherwise secure to the top of the draw-bar a lug, H, through which the pin passes. A slide, I, is arranged to pass under this lug, so that the pin may be withdrawn and the slide driven under the end of the pin, so that the latter cannot be displaced until the slide is withdrawn.

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

The combination of the spring G, lug H, and slide I with the draw-bar A, link C, pin D, buffer E, and spring F, when each part is constructed and arranged to operate substantially as and for the purposes set forth.

HARVEY TREFRY.

Witnesses:

THOS. S. SPRAGUE,
MYRON H. CHURCH.