(No Model.)

W. I. BYARD.

CAR COUPLING.

No. 282,438. Patented July 31, 1883.

Fig: 1.

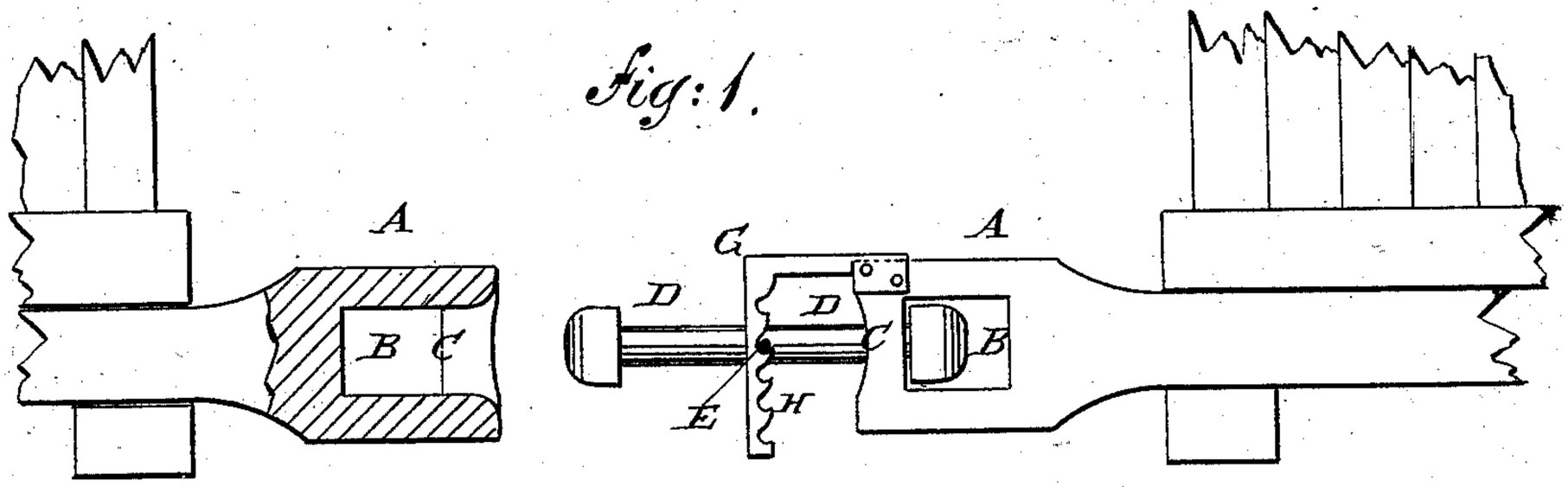


Fig: 2.

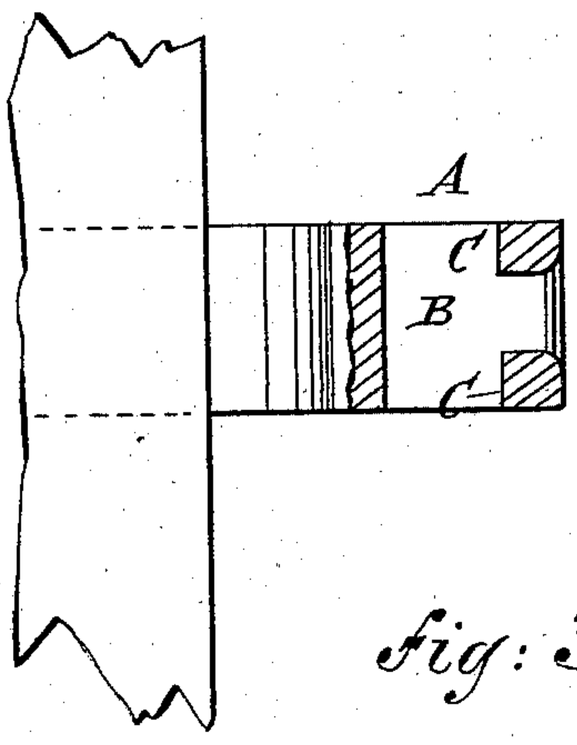


Fig: 3.

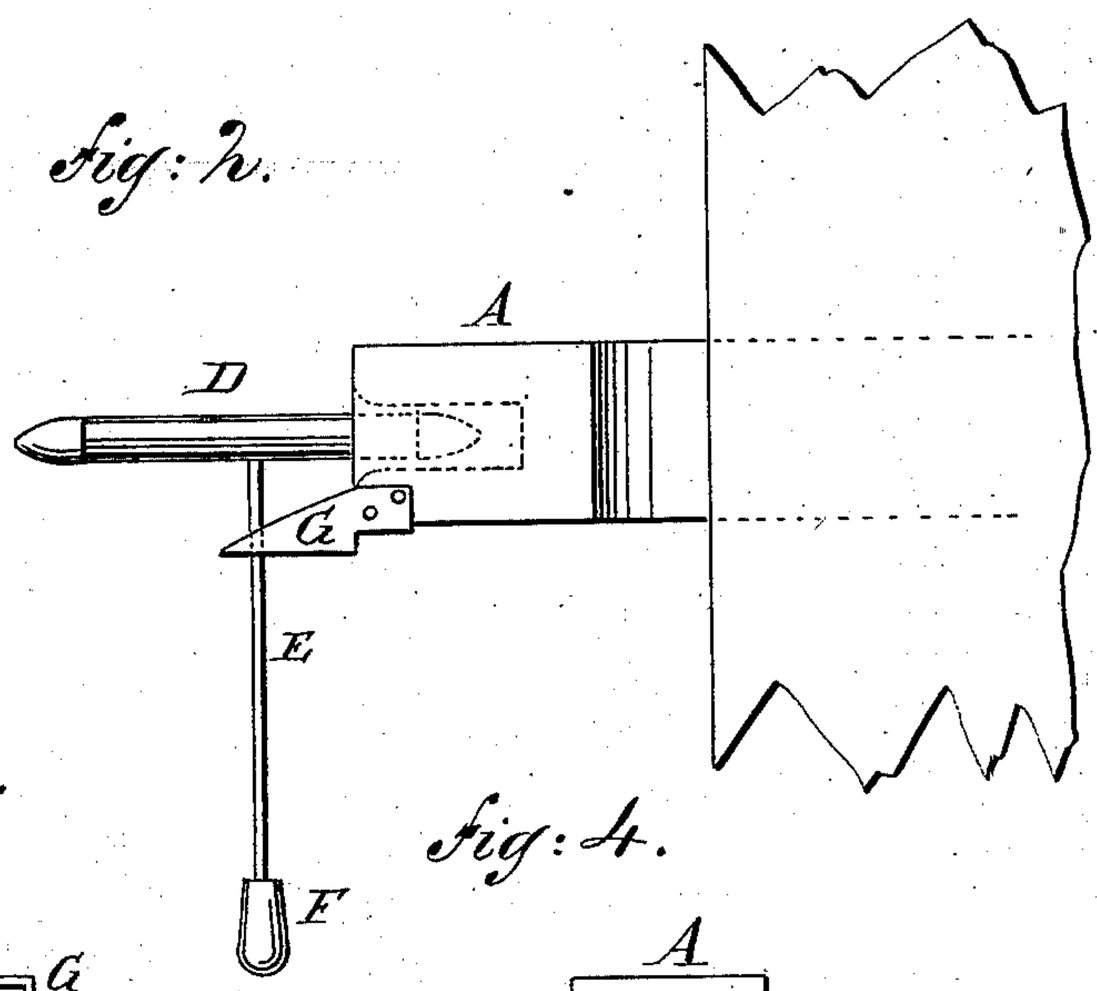
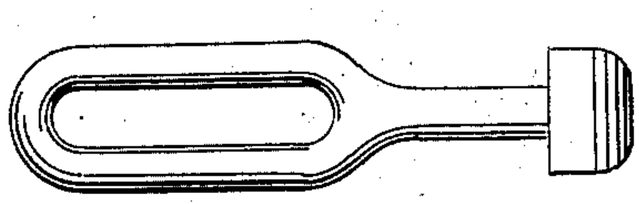


Fig: 4.

Fig: 5.



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UNITED STATES PATENT OFFICE.

WASHINGTON I. BYARD, OF LITTLE FALLS, NEW YORK, ASSIGNOR TO HIMSELF, M. WILLETT BRIGGS, AND GEORGE A. OPPEL, OF SAME PLACE.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 282,438, dated July 31, 1883.

Application filed May 19, 1883. (No model.)

To all whom it may concern:

Be it known that I, WASHINGTON I. BYARD, of Little Falls, Herkimer county, New York, have invented a new and Improved Car-Coupling, of which the following is a full, clear, and exact description.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a side elevation, partly in section, of my improvement. Fig. 2 is a plan view of the same, partly in section. Fig. 3 is a front elevation of a draw-head, the coupling-bar being shown in section and as set for coupling. Fig. 4 is a front elevation of the other draw-head, the coupling-bar being shown in section and in its position when the cars are coupled; and Fig. 5 represents a combined coupling bar and link.

The object of this invention is to facilitate the coupling of cars and promote security in such coupling.

A represents the draw-heads of adjacent cars. The mouths of the draw-heads are oblong, have their edges beveled, and are arranged with the longer diameters vertical, as shown in Figs. 3 and 4. The draw-heads A have horizontal slots B formed through them at a little distance from their ends, to form shoulders C for the cross-heads of the coupling-heads D to rest against when the cars are coupled.

The cross-heads of the bars D are made of such a length and thickness that they will readily pass into and out of the draw-heads A when turned into a vertical position, but not when turned into a horizontal position.

To the center of each coupling-bar D, and at right angles with the plane of the cross-heads of the said bars, is attached the end of a short rod, E, to the other end of which is secured a weight, F.

To an upper corner of the draw-head A is attached the end of a right-angled bar, G, in such a position that the other arm of the said bar will project downward vertically, as shown in Figs. 1, 2, and 3.

Upon the inner edge of the downwardly-projecting arm of the bar G are formed ratchet-teeth H, to receive the rod E, as shown in Fig. 1, the weight F being made sufficiently heavy to balance the projecting end of the coupling-bar D. With this construction, when two cars are to be coupled, the coupling-bar D, attached to the draw-head of one of the cars, is raised, and the rod E is placed in such a tooth, H, of the catch-bar G as will raise the outer end of the coupling-bar D into proper position to enter the draw-head of the other car. When the cars are run together, the raised end of the coupling-bar D enters the draw-head of the adjacent car, and as it strikes the bottom of the cavity of the said draw-head it is pushed back into the cavity of the draw-head that carries it, withdrawing the rod E from the teeth of the catch-bar G and allowing the weight F to drop, which turns the coupling-bar D, bringing its cross-heads into a horizontal position, ready to engage with the shoulders C of the draw-heads A when a traction strain is applied to the cars.

The cars are uncoupled by swinging the weighted rod E upward and placing the said rod upon a tooth of the catch-bar G.

By making a coupling-bar with a cross-head at one end and a slot at the other end, as shown in Fig. 5, a car provided with my improvement can be readily coupled with a car having the ordinary link-and-pin coupling.

I am aware that it is not new to have the heads of the coupling-bar made oblong, so that by a weighted bar they may be held across the shoulders C, and by being turned one-quarter revolution allowed to pass between them; but

What I do claim as new and of my invention is—

In a car-coupling, the angle-bar G, attached to the front of the upper end of the draw-head, and having the ratchet-teeth H on the inner side of its vertical arm to receive the rod E of the coupling-bar D, as shown and described.

WASHINGTON I. BYARD.

Witnesses:

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