

W. H. FARRIS.  
CAR-COUPLING.

No. 177,705.

Patented May 23, 1876.

Fig. 1.

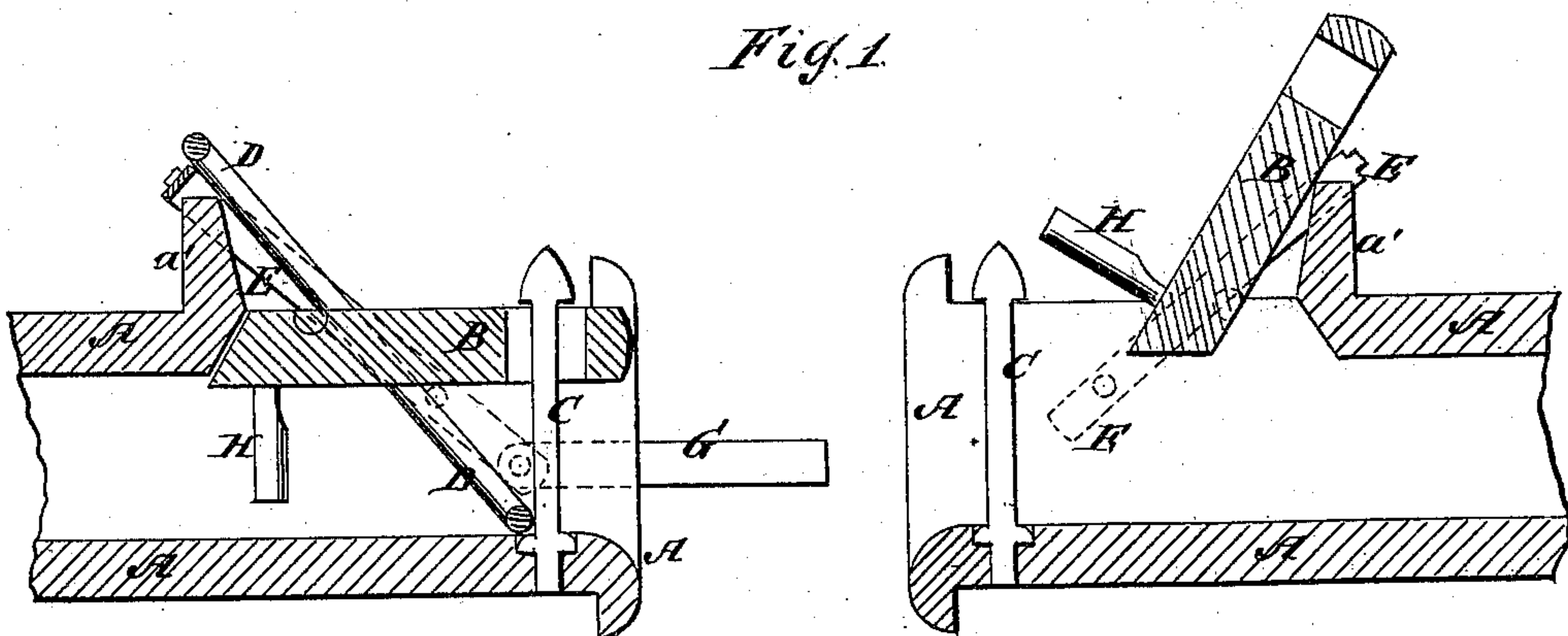
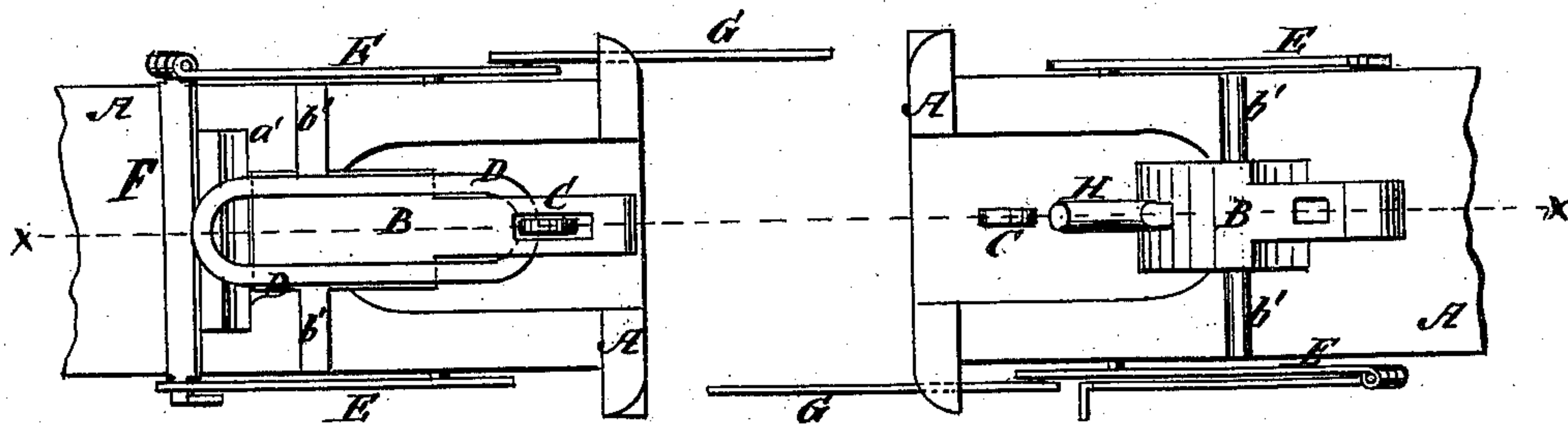


Fig. 2.



WITNESSES:

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## IMPROVEMENT IN CAR-COUPPLINGS.

Specification forming part of Letters Patent No. **177,705**, dated May 23, 1876; application filed April 25, 1876.

*To all whom it may concern:*

Be it known that I, WILFORT H. FARRIS, of Troy Station, in the county of Obion and State of Tennessee, have invented a new and useful Improvement in Automatic Car-Coupling, of which the following is a specification:

Figure 1 is a vertical longitudinal section of my improved coupling taken through the line *x x*, Fig. 2, shown as arranged for coupling. Fig. 2 is a top view of the same.

Similar letters of reference indicate corresponding parts.

My invention has for its object to furnish an improved car-coupling, which shall be so constructed as to couple the cars automatically as they are run together; which will couple cars of different heights; will couple with a car provided with an ordinary coupling; and which shall be simple in construction and reliable in use.

The invention consists in the upright draw-pins, the pivoted blocks, and their notched pins, in combination with the draw-heads having an open upper side, and with a coupling-link; and in the combination of the pivoted bars, the hinged cross-bars, and the sliding bars, with the open-topped draw-heads, the pivoted blocks, their pins, and the coupling-link, as hereinafter fully described.

A represents the draw-heads of two adjacent cars, the upper sides of which have openings formed in them in which are placed bars or blocks B, which have strong arms or gudgeons *b'* formed upon the sides of their inner parts, which enter notches or holes in the draw-heads A, to pivot the said blocks, and to sustain the draft-strain. The upper edge of the inner end of the pivoted blocks B is beveled off to rest against a corresponding bevel in the upper side of the draw-heads, at the inner end of the top openings in said draw-heads, and which, in connection with the pivoting-arms *b'*, hold the said blocks B in a horizontal position. The blocks B are kept from falling back too far when raised by projections *a'*, formed upon the upper sides of the draw-heads A, at the inner ends of their top openings. C are the coupling-pins, the lower ends of which rest in holes in the lower sides of the draw-heads A, and their upper ends, which are made in the shape of arrow-

heads, pass up through a short slot in the forward part of the pivoted blocks B, so as to be supported at both ends when sustaining the draft-strain. D is an ordinary coupling-link, which passes around the pins C. The blocks B are made narrower than the openings in which they are placed, so that the links may be turned up over them, as shown in Figs. 1 and 2. To the opposite sides of the draw-heads A are pivoted two bars, E, which project above said draw-heads, and to the upper end of one of which is hinged a cross-bar, F. The free ends of the cross-bar F, and of the other pivoted bar, E, are so formed as to interlock with each other when the said bar F is turned into a horizontal position. The lower end of one of the bars E projects below its pivot, and to its end is pivoted the end of a bar or rod, G, which passes through a guide-hole or keeper formed upon, or attached to, the side of the draw-heads, and its forward end projects into such a position as to strike the draw-head of the adjacent car when the cars are run together. To the under side of the inner end of the pivoted blocks B is attached a pin, H, projecting at right angles and having a notch formed in the forward side of its upper part, as shown in Figs. 1 and 2.

The coupling is set for automatic coupling by turning the pivoted block B of the one draw-head back to rest against the projection *a'*, the bar F being turned down at the side of the said draw-head. The link D is placed in the other draw-head, and is turned up to rest against the cross-bar F. When the cars are run together the projecting end of the bar G strikes against the end of the other draw-head, which causes the bars E F to throw the link forward, so as to drop over the pin C of the other draw-head. As the link drops into place it strikes the pin H and throws the pivoted block B down and the coupling is completed. In case the force of the link D is not sufficient to throw the pivoted block B down, it drops into the notch of the pin H and pulls the said block down as soon as draft is applied. In case the cars are of different heights the link should be turned up upon the draw-head of the higher car.

Having thus described my invention, I claim

as new and desire to secure by Letters Patent—

1. The upright pins C, pivoted blocks B, and notched pins H, in combination with the draw-heads A, having an open upper side, and with a coupling-link, D, substantially as herein shown and described.

2. The combination of the pivoted bars E,

the hinged cross-bars F, and the sliding bars G, with the open-topped draw-bars A, the pivoted blocks B, the pins H, and the link D, substantially as herein shown and described.

WILFORT HAMPTON FARRIS.

Witnesses:

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