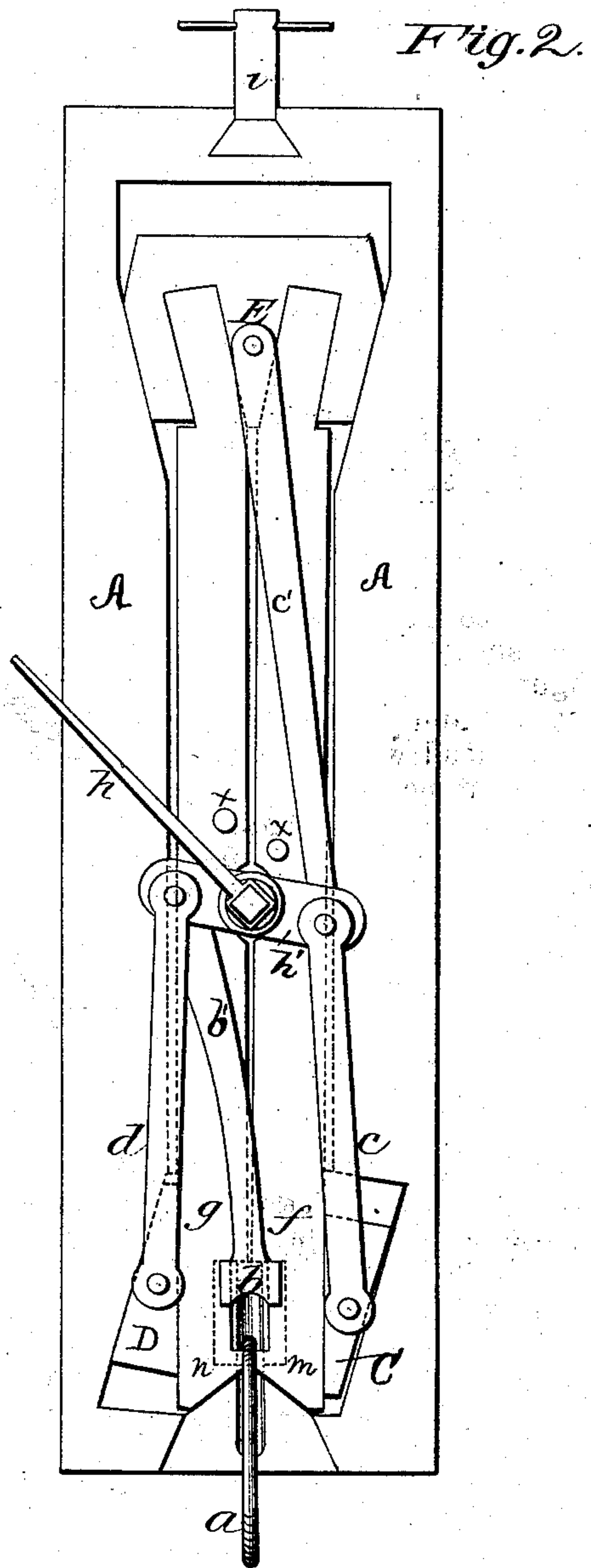
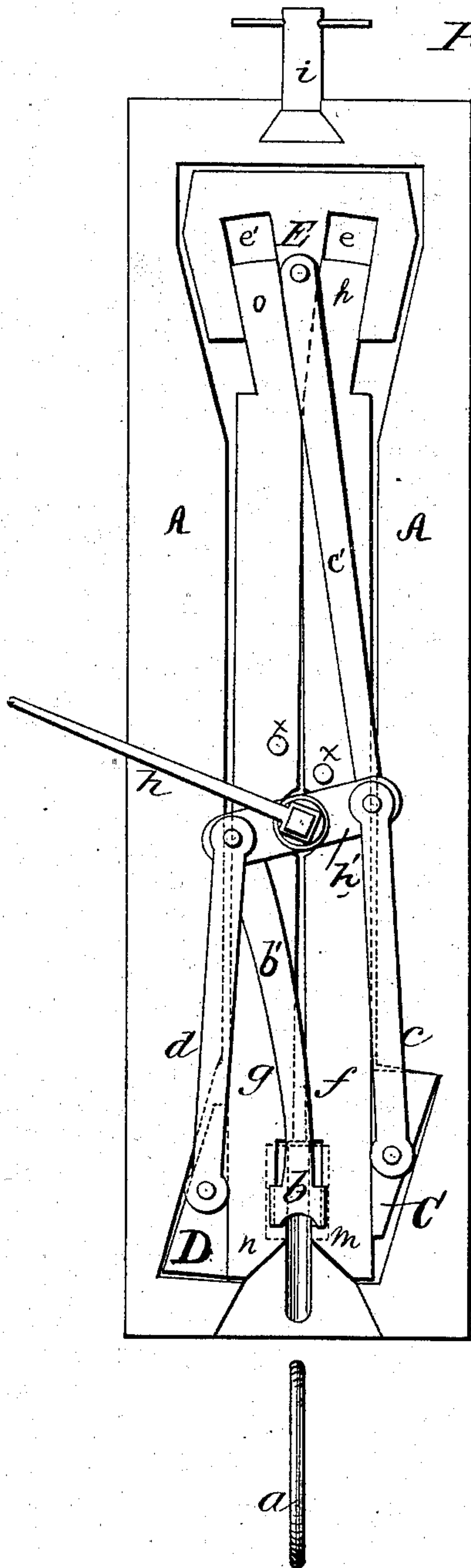


(Model.)

M. STEFFY.  
Car Coupling.

No. 239,628.

Patented April 5, 1881.



Witnesses:  
Peter Anthony  
Sol. W. P. Elin

Inventor:  
Martin Steffy



# UNITED STATES PATENT OFFICE.

MARTIN STEFFY, OF LITTLESTOWN, PENNSYLVANIA.

## CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 239,628, dated April 5, 1881.

Application filed November 11, 1880. (Model.)

*To all whom it may concern:*

Be it known that I, MARTIN STEFFY, a citizen of the United States, residing at Littlestown, in the county of Adams and State of Pennsylvania, have invented certain new and useful Improvements in Car-Couplers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings and letters of reference marked thereon, which form a part of this specification.

Figure 1 is a plan view, showing the link uncoupled and removed a short distance from the draw-head, while the coupler itself is shown in an open position ready to automatically couple the link when properly inserted, and Fig. 2 is also a plan view, showing the relative position of the device when the cars are coupled. In both figures the cover of the draw-head is removed, so as to show the interior devices.

In the accompanying drawings, similar letters of reference indicate like parts of the invention.

This invention has for its object to provide an efficient and safe car-coupler, that the act of coupling will be automatic, and at the same time the danger of uncoupling incident to a high rate of speed and the unavoidable jars that all trains are subject to will be overcome, all of which will be hereinafter more fully described, and particularly pointed out in the claims.

A is a draw-head, in which the levers *f* and *g* are pivoted about the centers of their length, as shown at *xx*. These levers *f g* are recessed and beveled at their forward ends, to form two meeting hooks or catches, *m n*, and at their rear ends diverge, as shown at *o p*. A short shaft is journaled in the draw-head between the levers *f g*, and is provided with an operating-handle, *h*. Secured to said shaft is a short transverse lever, *h'*, to one extremity of which the connecting-rod or pitman *c* is attached, connecting it with the wedge *C*; and to the short lever *h'*, but running in the opposite direction, is attached another pitman, *c'*, also connecting that end of said lever with a shoe, *E*, having slots *e* and *e'*, in which work the diverging ends *o p* of the levers *f g*. To the opposite end of the short lever *h'* is attached a connecting-rod, *d*, connecting it with the wedge *D*. There is also connected to the same end of this lever a curved pitman, *b'*, the free end of which terminates in

a cross-head, *b*, working in guides formed by the recesses in the hooked ends of the levers *f* and *g*.

The operation of the invention is as follows: When the coupler is in the position shown in Fig. 1, if the link *a* be inserted the end of it will come in contact with the cross-head *b*. This communicates motion, through its pitman *b'*, to the cross-lever *h'*, and it, through the pitman *c*, forces the wedge *C* forward, while the wedge *D* is drawn backward by means of the lever *d*. This combined motion of the wedges *C* and *D* presses the hooked ends *m n* of the levers *f g* together, thus firmly securing the link *a* between them. At the same time that the pitman *c* and *d* are moving, the other pitman, *c'*, is also in motion and draws with it the shoe *E*. This shoe, in being drawn forward, forces the ends *o p* apart, thus assisting in closing the hooks *m n*, and rendering the operation doubly secure and effective. The device will then have assumed the position shown in Fig. 2.

To uncouple, it is only necessary to draw the handle *h* forward, when the wedges *C D* and the shoe *E* will be slid back, the hooks *m n* separated, and the cross-head *b* pushes the link out.

It will readily be seen that should an accident happen to the wedges *C D* and their connections *c d*, or to the shoe *E* and its pitman *c'*, there would still remain enough of the device intact to couple and uncouple perfectly and reliably.

Having thus described my invention, what I claim is—

1. In a car-coupler, the levers *f g*, pivoted in the draw-head *A*, at *xx*, in combination with the cross-head *b*, pitman *b' c d*, wedges *C D*, and transverse lever *h'*, as and for the purpose set forth.

2. In a car-coupler, the levers *f g*, shoe *E*, pitman *c'*, transverse lever *h'*, provided with the handle *h*, and the pitman *b'*, having cross-head *b*, substantially as and for the purpose set forth.

3. In a car-coupler, the levers *f, g*, and *h'*, wedges *C D*, and shoe *E*, in combination with the pitmen *c' c d*, handle *h*, and cross-head *b*, substantially as and for the purpose set forth.

In testimony whereof I affix my signature in presence of two witnesses.

MARTIN STEFFY.

Witnesses:

R. S. SEISS,  
F. H. SEISS.