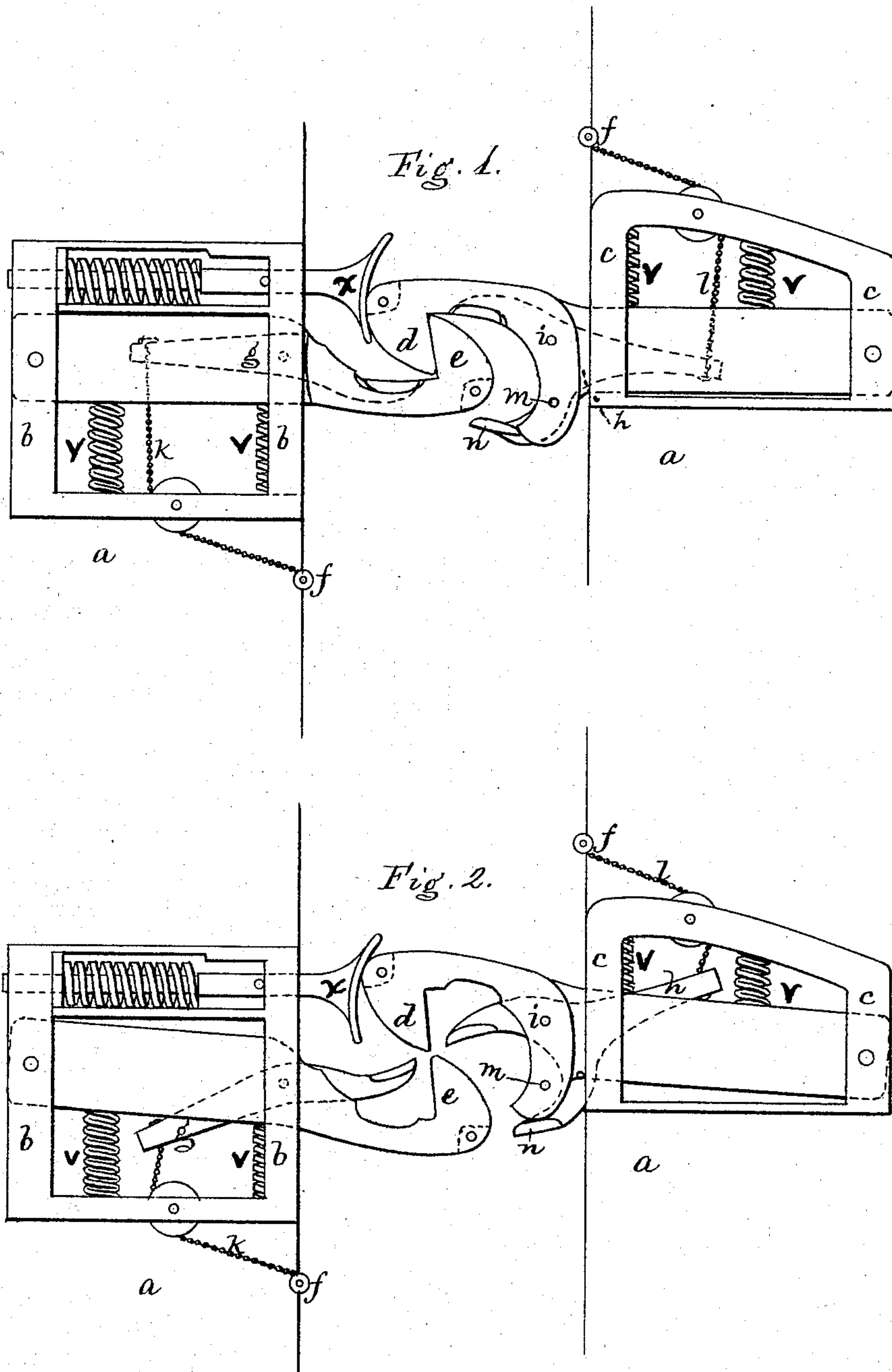


H. N. HART.  
Car-Couplings.

No. 156,634.

Patented Nov. 10, 1874.



Witnesses.  
G. W. Kempton.  
Sam C. Oliver.

Inventor.  
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Atty.

# UNITED STATES PATENT OFFICE.

HARRISON N. HART, OF SANDWICH, NEW HAMPSHIRE, ASSIGNOR OF ONE-HALF HIS RIGHT TO ENOCH Q. FELLOWS, OF SAME PLACE.

## IMPROVEMENT IN CAR-COUPPLINGS.

Specification forming part of Letters Patent No. **156,634**, dated November 10, 1874; application filed August 27, 1874.

*To all whom it may concern:*

Be it known that I, HARRISON N. HART, of Sandwich, in the county of Carroll, State of New Hampshire, have invented a certain new and useful Improvement in Car-Couplers, of which the following is a description sufficiently full, clear, and exact to enable any person skilled in the art or science to which my invention appertains to make and use the same, reference being had to the accompanying drawing forming a part of this specification, in which—

Figure 1 is a plan or top view of my improved coupler connected, and Fig. 2 a view of the same disconnected.

Like letters of reference indicate corresponding parts in the different figures of the drawing.

My invention relates more especially to that class of car-couplers which are self-coupling; and consists in a novel construction and arrangement of the parts, as hereinafter more fully set forth and claimed, by which a more effective device of this character is produced than is now in common use.

In the drawing, *a a* is the platform of the car, and *b b c c* the body or frame-work of the coupler, in which the principal operative parts are disposed, *e d* being the draw-bars; *x*, the buffer; *g*, the disconnecting-lever, and *h* the disconnecting and locking lever. The lever *g* is centrally pivoted in the bar *e*, the lever *h* being pivoted at *i* in the bar *d*, said levers being also, respectively, provided with chains *k l* and shafts *f f*, by which they are operated.

It will be observed that the draw-bars *d e* are notched laterally, or that each is provided with a jaw or laterally-projecting hook projecting in opposite directions in such a manner that when the cars are brought together the bar *d* will strike the buffer *x* and the bars be interlocked, being kept in proper contact

to form the coupling by the expansive action of the springs *v v*. A difficulty is also sometimes experienced with couplers of this character by the accidental uncoupling of the cars caused by the swinging or vibrating movements of the same, or by passing around curves.

My invention is designed to obviate these difficulties, and to that end I make use of the pivoted levers *g h* disposed in the draw-bars, as described, and connected, respectively, by the chains *k l* to the rods *f f*, the lever *h* being provided with the flange or hook *n*.

It will be seen that when the car is coupled, as shown in Fig. 1, if the lever *g* is actuated by means of the chain *k* and rod *f*, the outer end of the lever will be brought against the bar *d*, so that while the chain *k* operates to draw the bar *e* away from the bar *d* it will also at the same time, through the lever *g*, operate to force the bar *d* away from the bar *e*, thus dividing between the two bars the distance necessary to move either when operated separately, and reducing the power required to compress the springs *v v* and uncouple the cars.

The lever *h* is provided with the hook or flange *n*, which, when the cars are coupled by swinging the lever, may be caused to extend around the end of the bar *e*, and be secured in that position by the pin *m*, thus preventing the bars from becoming accidentally detached, as described.

What I claim is—

In a car-coupler, the lever *h*, provided with the hook *n*, and combined to operate with the bars *d e* and pin *m*, substantially as and for the purpose specified.

HARRISON N. HART.

Witnesses:

DANIEL D. ATWOOD,  
C. C. FELLOWS.