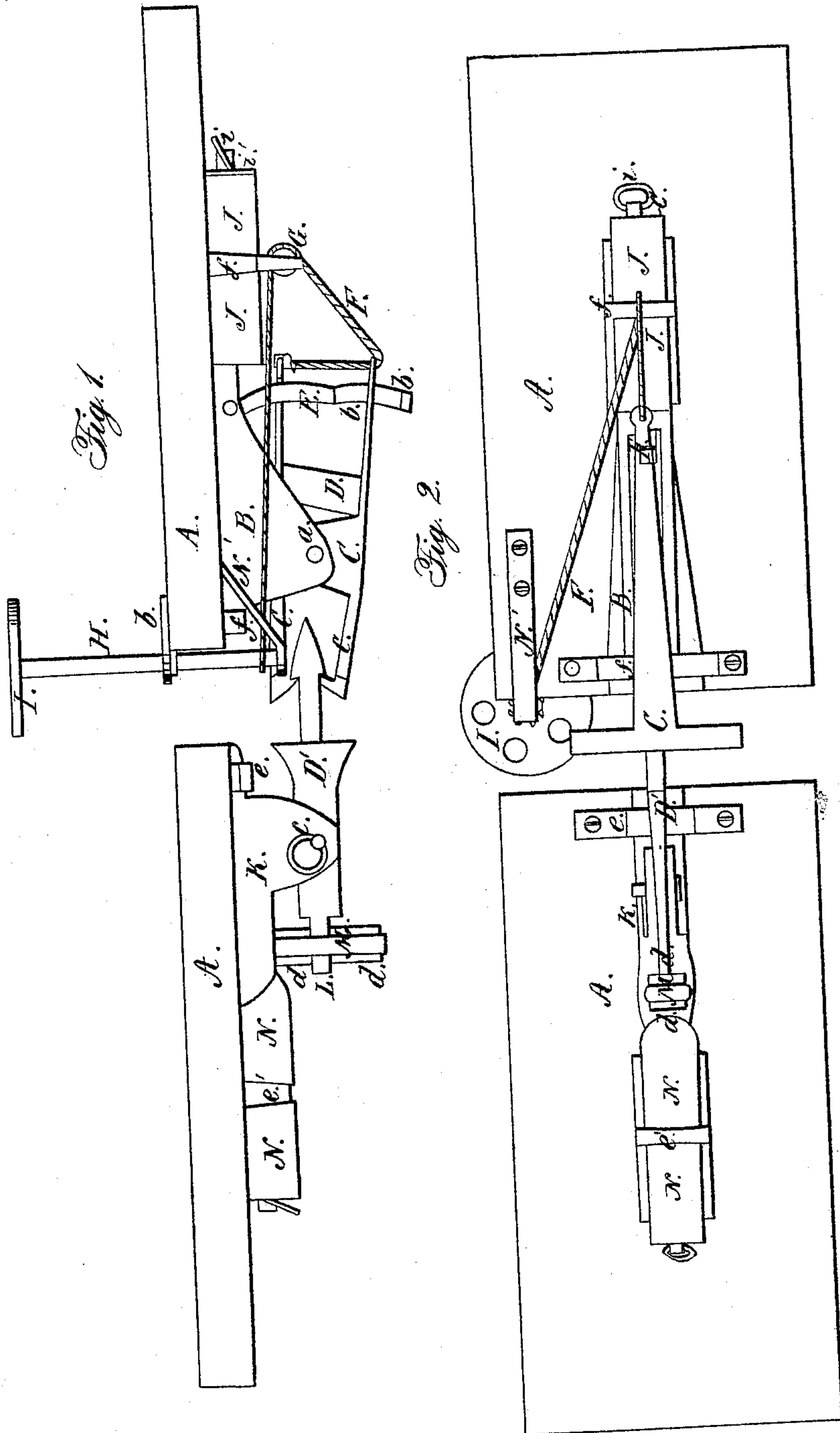


### Car Coupling.

No. 57,732.



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JOHN KINGSBURY, OF RAVENNA, OHIO.

## IMPROVED CAR-COUPLING.

Specification forming part of Letters Patent No. 57,732, dated September 4, 1866.

*To all whom it may concern:*

Be it known that I, JOHN KINGSBURY, of Ravenna, in the county of Portage and State of Ohio, have invented certain new and useful Improvements in Railroad-Car Couplings; and I do hereby declare that the following is a full and complete description of the construction and operation of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a side view of the coupling; Fig. 2, a bottom view of the same.

Letters of reference denote like parts in the views presented.

A A, Fig. 1, is the platform of the cars, to the under side of which the coupling is attached. B is a pair of stays, in which the jaws C C are secured by the pins *a*. D is a spring, made of rubber or other suitable material, and is placed between the rear arms of the jaws in order to force the arms apart, and thereby bring the jaws close and firmly down upon the neck of the hook D', when the hook is forced between them in the act of coupling. E is a standard, against which the arms of the jaws slide, one on each side, thereby preventing any lateral movement of the arms. It also serves to regulate the distance of the vertical action of the arms by the shoulders *b b*, so that the jaws may not open too wide to admit of a quick and immediate gripping of the hook when it is pushed through them. F is a chain, one end of which is connected to the arm of the upper jaw, passing thence through a hole in the end of the arm of the lower jaw, and from thence over the sheave G to the upright shaft H, around which it winds on turning the shaft by the wheel I. J J are springs, made of rubber or other proper material, and placed on the rear of the stays B, for the purpose of easing the blow consequent upon the cars striking when in the act of coupling together.

D', above referred to, is a hook, and secured in a pair of stays, K, by a pin, C. The rear end of this hook is provided with a stem or shank, L, which passes through a slotted stay, M. Below and above the stem are rubber springs, *d d*, or their equivalent. These springs keep the hook in a straight line with the bottom of the cars, and should the hook be pressed downward or upward, on its passing into the jaws of the coupling, it is again brought to a straight line by the springs.

N N are springs of the same material, and for the same purpose as the springs J J.

It will be remarked that the stays B and K, on which the hook and jaws are placed, are not fixed rigidly to the bottom of the cars, but are secured to it by two bands, *e e'*, on the stays holding the hook and the stays holding the jaws by these bands *f f'*, Fig. 2. These bands permit the stay a slight movement backward and forward, so that on striking; when in the act of coupling, they yield to the force of the blow, and by the resistance of the springs its effect is thereby lessened and the stays again forced forward by the strength of the springs.

N' is a step supporting the shaft H, and *h* a pawl and ratchet-wheel on the shaft H. *i* is a ring to keep the washer *i'* in place.

The manner of using the coupling is as follows: The two cars, each being provided with its respective sections of the couplings, are brought together; the hook, in consequence of its pointed elongated head, passes freely through the jaws, which thus gripe it tightly around the neck, and is held thus by the spring D, above referred to, and the hook also being slightly barbed prevents them from uncoupling in a direct line of the draft. Should the cars slip from the track, or should there be any violent and dangerous side movement, the tongue or hook would then be forced out sideways from the jaws, and thereby the cars would become detached from each other.

In order to uncouple the cars under ordinary circumstances, the shaft H is turned. This turning of the shaft winds up the chain or rope F, which in so doing draws down the arm of the upper jaw. At the same time it draws up the arm of the lower jaw, thus bringing the two closer together, while the jaws are by this movement opened wide enough to admit of the withdrawal of the hook, and thus kept opened, if so desired, by the pawl and ratchet-wheel referred to above.

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

1. The arrangement of the jaws C, when pivoted together and to the adjustable stay B, in combination with the standard E, springs J D, chain F, and windlass, as specified.

2. The hook D', and adjustable stays K, when arranged and pivoted as set forth, in combination with the springs N *d* and jaws C, as and for the purpose set forth.

JOHN KINGSBURY.

Witnesses:

WILLIAM COOLMAN,  
F. W. COFFIN.