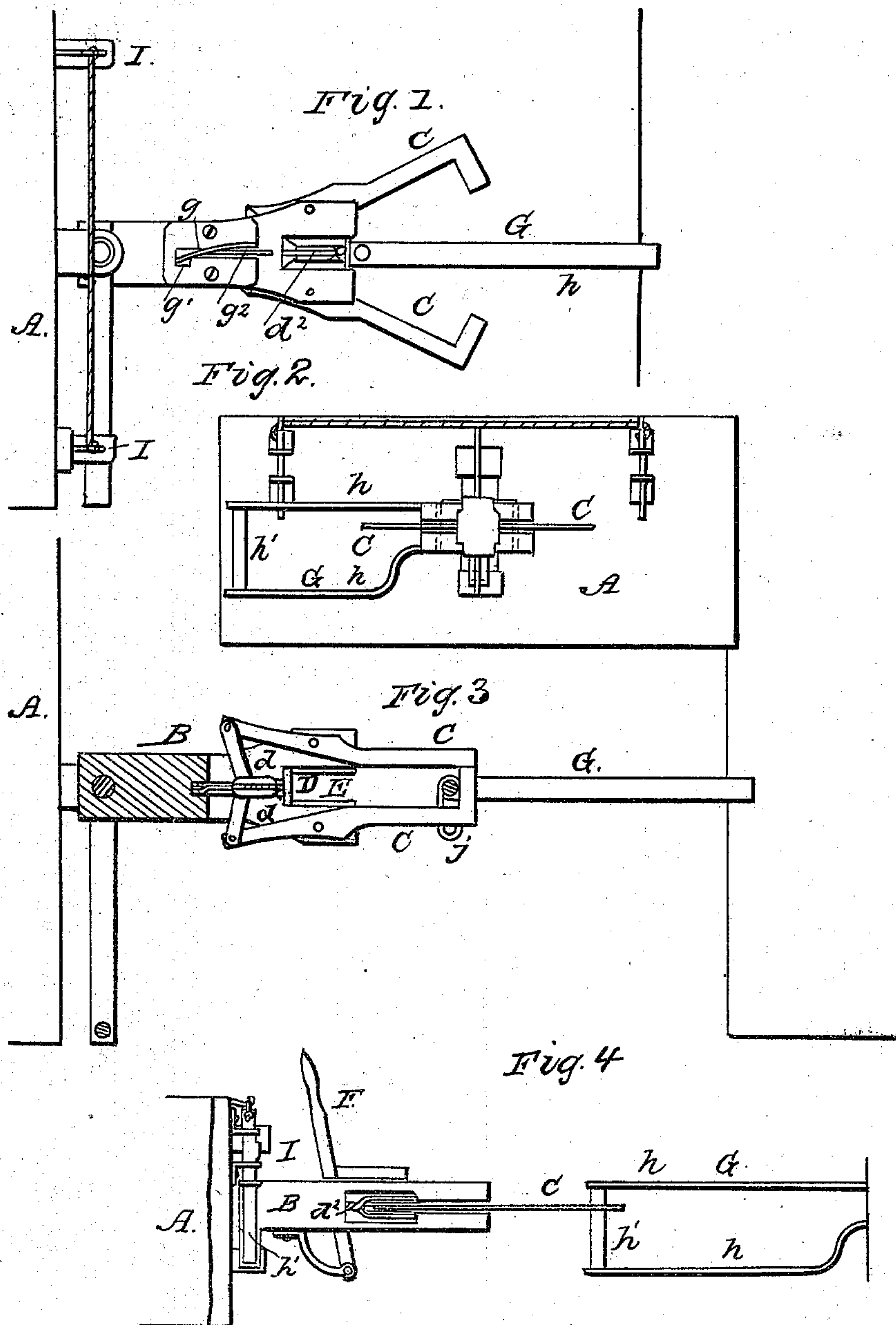


C. MARKLEY.
Car Coupling.

No. 105,470.

Patented July 19, 1870.



WITNESSES

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UNITED STATES PATENT OFFICE.

CHARLES MARKLEY, OF NEW YORK, N. Y.

IMPROVEMENT IN CAR-COUPPLINGS.

Specification forming part of Letters Patent No. 105,470, dated July 19, 1870.

I, CHARLES MARKLEY, of New York, in the county of New York and State of New York, have invented a new and Improved Car-Coupling, of which the following is a description:

This invention relates to the construction and arrangement of car-couplings which are designed to operate automatically, as will be fully explained hereinafter.

In the accompanying drawing, Figure 1 is a top view of improved draw-head attached to a car or locomotive with its automatic mechanism. Fig. 2 is a front or end view of the same. Fig. 3 is a horizontal section. Fig. 4 is a side view.

A represents the end of a car or locomotive; B, the draw-head or bumper, slotted longitudinally on either side of the mouth *b'*. C C represent a pair of jaws or hooked levers, pivoted within the slots *b b*. *d d* are toggle-arms, connecting the rear ends of the levers C C with a block, D, by means of a link, *d'*. The said block is arranged vertically to slide forward and backward in a suitable recess, E, formed at the mouth of the draw-head. For the purpose of guiding the block D, the recess E is grooved laterally to receive the flanged sides thereof.

F is a vertical lever, pivoted at its lower end to the arm *f*, reaching downward from the under side of the draw-head. Said lever is situated in a suitable vertical slot, *g*, formed in the draw-head behind the toggles *d d*, and connects with the block D by means of a rod, *d²*. A notch, *g¹*, is cut at the rear end of the slot *g*, to hold the lever F, which is retained therein by means of a spring, *g²*.

G is a coupling-link, attached rigidly to the end of a car, and consists of the horizontal projections *h h* and vertical standard *h'*.

The operation of this invention is as follows: Upon the approach together of the cars, the jaws C C being open, which moves the block D forward, the standard *h'* strikes said block and pushes it back, and by this means closes the jaws around the said standard, in which position they are locked by the lever F being held in the notch *g¹*. The jaws are opened by throwing the lever F forward.

It will be understood that such a draw-head

is intended for one end only of the car to which it is attached, the opposite end being provided with the link. This is the proper arrangement, inasmuch as the cars are not reversed; but the locomotive sometimes is, to provide for which the draw-head is journaled, as shown in the drawing, to the end of the locomotive, and to its rear end, and at a right angle with the draw-head, a link is attached, which may be employed, when necessary, instead of the draw-head.

I are vertical bolts attached to the end of the engine, which are intended to drop into suitable notches in the draw-head and link to retain them rigidly in position. *i* is a cord connecting the bolts.

Though the combined link and draw are more properly adapted to the engine, they may, if necessary, be attached as well to the ends of a car, and the bolts *i* arranged as described.

This coupling will suit any sized car. To suit the common draw-head, a link, *j*, may be hung on the standard *h'*, while the jaws will couple with a pair of links attached to the common draw-head, so that the outer link shall be vertical.

Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination and arrangement, as specified, of the jaws C C, pivoted to the draw-head B, toggles *d d*, plate D, lever F, spring *g²*, slot *g¹*, and draw-head B, when constructed to operate as described.

2. The combination of the draw-head B, provided with the jaws C C, toggles *d d*, plate D, and lever F with the link G, when said draw-head and link are connected at their rear ends and arranged in relation to each other as set forth, and supported on a vertical pivot, for the purpose specified.

3. The combination, with the elements of the second claim, of the bolts I, arranged as and for the purpose specified.

CHARLES MARKLEY.

Witnesses:

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