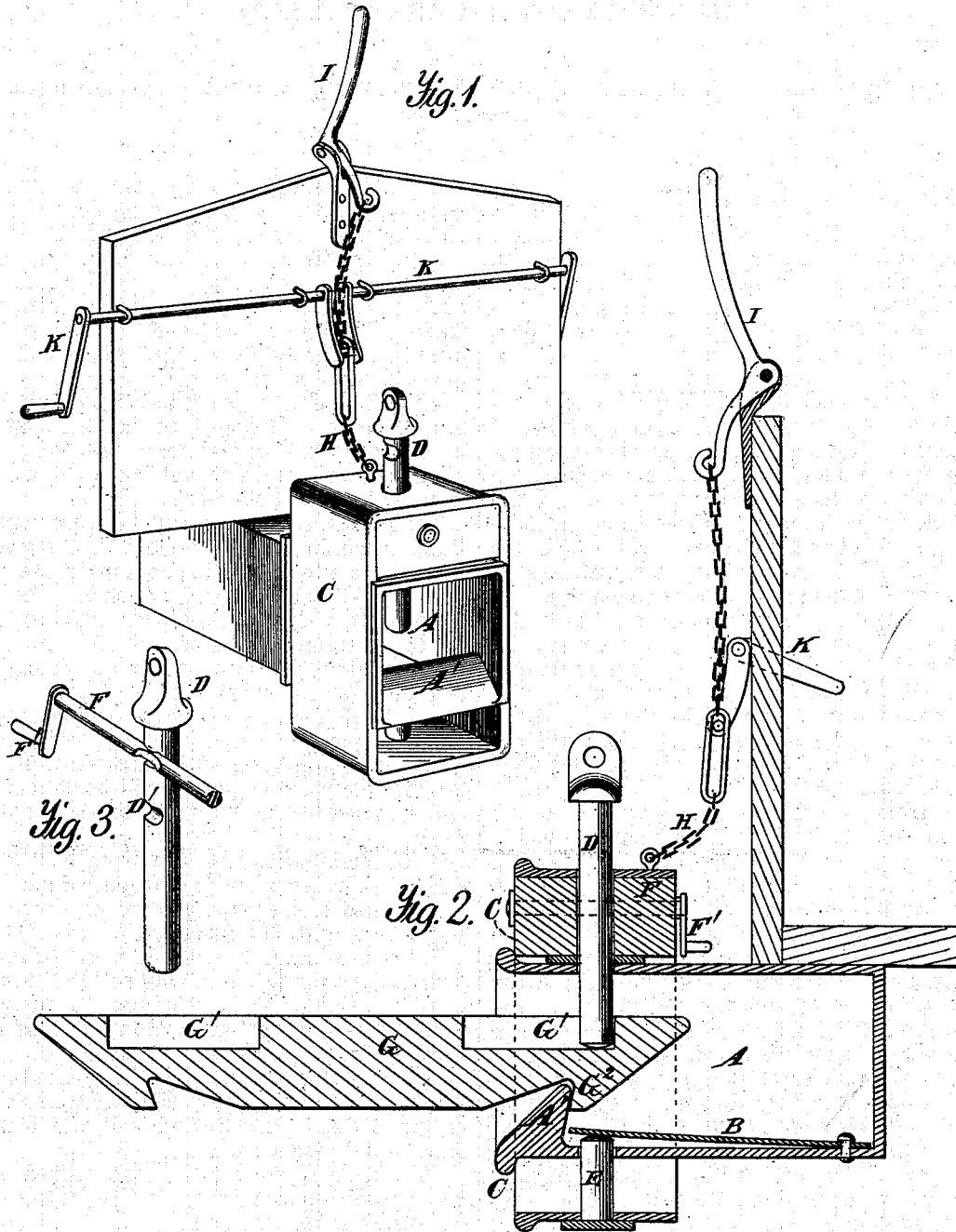


G. W. HUDSON.  
 CAR-COUPLING.

No. 186,568.

Patented Jan. 23, 1877.



Witnesses:  
 A. Rappert.  
 Wm. H. Bates.

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# UNITED STATES PATENT OFFICE.

GEORGE W. HUDSON, OF PEWEE VALLEY, KENTUCKY.

## IMPROVEMENT IN CAR-COUPLINGS.

Specification forming part of Letters Patent No. **186,568**, dated January 23, 1877; application filed October 17, 1876.

*To all whom it may concern:*

Be it known that I, GEORGE W. HUDSON, of Pewee Valley, in the county of Oldham and State of Kentucky, have invented a new and useful Improvement in Car-Couplings, of which the following is a specification:

In the annexed drawings, making a part of this specification, Figure 1 is a perspective view, showing the end of a car with a draw-bar containing my improvements attached. Fig. 2 is a longitudinal section of the draw-head and link. Fig. 3 is a perspective view of the pin and shaft for securing it.

The same letters are employed in all the figures in the indication of the same parts.

A is the chambered draw-head, which has an inclined under jaw, A', to throw up and afterward engage the hook-headed link. A plate, B, pivoted at the inner end, lies in the chamber behind the jaw A, and covers the point of the vertical pin E. Its front end extends to jaw A', and when the pin E is raised, whatever may be the position of the link G in the chamber A, the plate will engage it and lift the hook of the link G<sup>2</sup> clear of the jaw A'.

A gravitation-frame, C, surrounds the end of the draw-head, confined by flanges, which allow it free vertical play as it is lifted by the coupling or by hand, and falls by gravity. It has a round hole in the middle of its top, to receive the pin D, which may be inserted or removed, while a lower pin, E, is permanently secured to the bottom of the frame, and passes up through a hole in the bottom of the draw-head, lifting the plate B when the frame is raised, and disengaging the hook-headed link G from the jaw A'.

The pin D may be adjusted in the gravitation-frame by means of the shaft F, actuated by the crank F', which passes through the upper part of the frame, and has a flattened part cut away to correspond with the indentations D' in the pin.

When the crank is vertical the pin may be withdrawn; in other positions of the crank the pin will be engaged by the shaft when received in the indentation D'.

The coupling G is hook-headed at G<sup>2</sup>, to engage the jaw A', and has a recess in top at G<sup>1</sup>, to receive the end of the pin D.

When the cars come together, the beveled end of the coupling striking against the inclined face of jaw A', the point of the coupling passing under the end of the pin, raised, as shown in Figs. 1 and 2, by the shaft engaging the lower notch D', the pin, with the frame C, will be raised until the pin, riding over the coupling, falls into the recess G<sup>1</sup> by gravity, coupling the cars.

Should a link be used for a coupling, the pin D should be dropped, so that the shaft F may engage the upper notch, allowing the pin to descend, so as to get a bracing at the lower end against the jaw A'.

To disengage the pin from the coupling or link, the chain H is extended from the gravitation-frame to a crank, I, on top of the car, or a crank, K, on the end, which may be operated from either side. By moving the crank the frame can be raised and the link freed without the necessity of any one getting between the cars.

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

1. The combination of the draw-head A A', gravitation frame C, pin D, and hook-headed and recessed link G G<sup>1</sup> G<sup>2</sup>, substantially as set forth.

2. In combination with the draw-head A A' and hook-headed coupling, the plate B and pin E, attached to the gravitation-frame carrying pin D, substantially as set forth.

3. In combination with the gravitation-frame C, the pin D, adjustably attached thereto by the shaft F, so as to adapt it to operate with different couplings, substantially as set forth.

4. In combination with the draw-head, the gravitation-frame C, pins D and E, coupling G, jaw A', and plate B, and link and chain, substantially as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

GEORGE W. HUDSON.

Witnesses:

THOS. K. MCGHEER,  
HENRY BECKER.