J. H. ACTON.

Car-Coupling.

No. 165,971. Patented July 27, 1875.

Fig. 1.

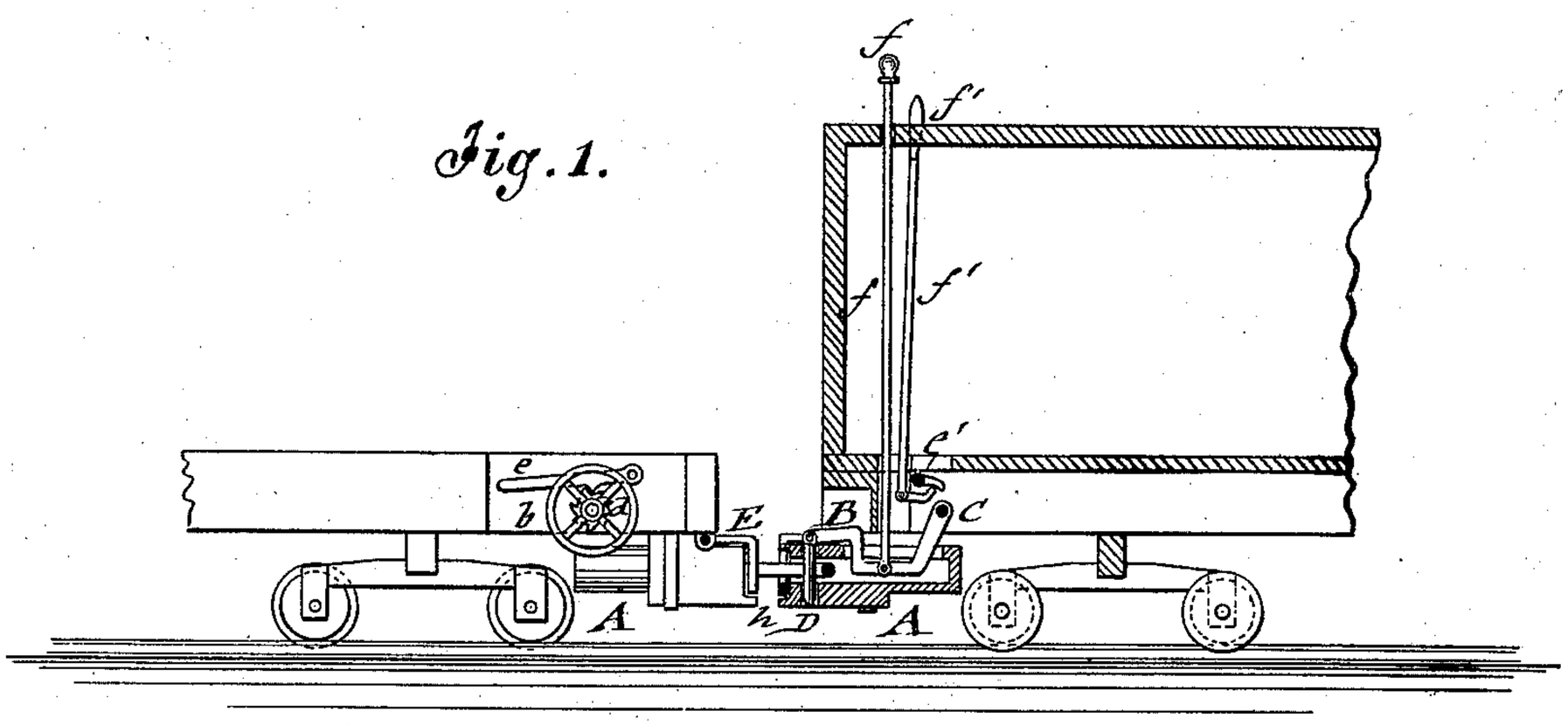


Fig. 2.

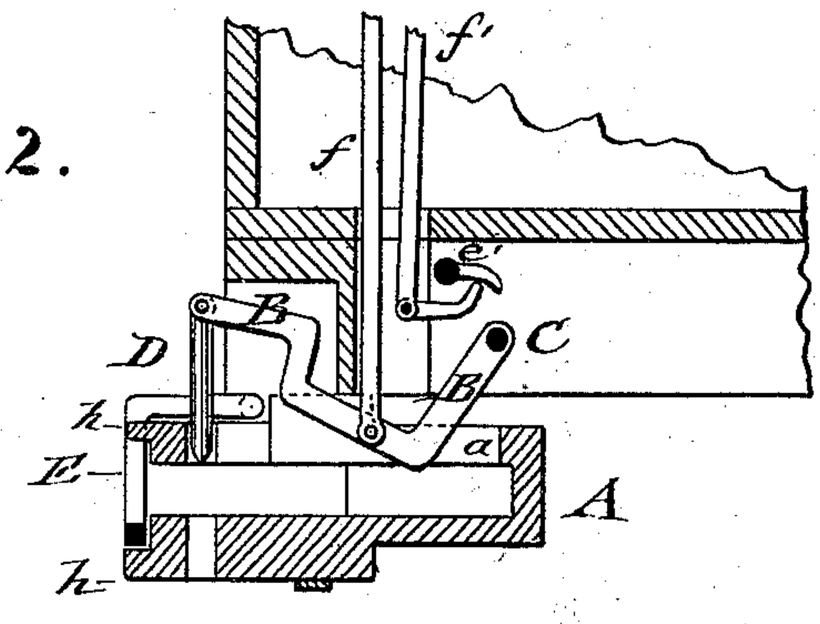
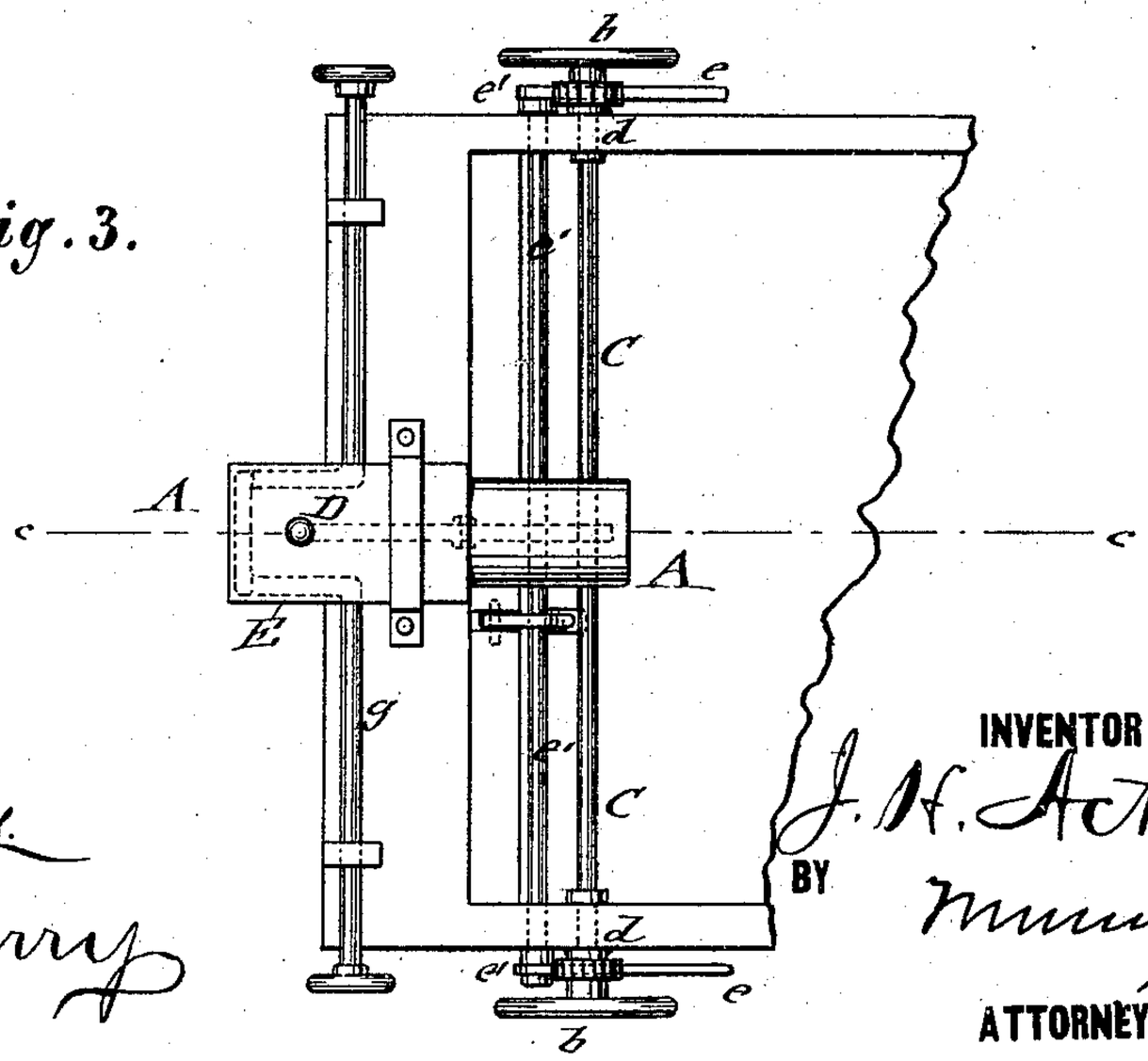


Fig. 3.



WITNESSES:

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JOHN H. ACTON, OF JACKSON C. H., OHIO.

IMPROVEMENT IN CAR-COUPLINGS.

Specification forming part of Letters Patent No. **165,971**, dated July 27, 1875; application filed March 20, 1875.

To all whom it may concern:

Be it known that I, JOHN H. ACTON, of Jackson C. H., in the county of Jackson and State of Ohio, have invented a new and Improved Car-Coupling, of which the following is a specification:

In the accompanying drawing, Figure 1 represents a vertical longitudinal section of my improved car-coupling, showing two cars in coupled position. Fig. 2 is a vertical longitudinal section of the same on the line *c c*, Fig. 3, in uncoupled position; and Fig. 3 is a bottom view of the car and coupling mechanism attached.

Similar letters of reference indicate corresponding parts.

My invention relates to improvements in car-couplings, which may be readily coupled or uncoupled at any moment from the side or top of the car, while the link may be guided securely into the mouth of the draw-head without stepping between the cars.

The invention consists of a draw-head with a crooked pin-bar, that swings in a longitudinal top slot of the same, and is keyed at the rear end to a lateral shaft with ratchet-wheel and pawl, and provided at the front end with the pivoted coupling-pin. The release of the pin-controlling ratchet, either from the sides or top of the car, drops the pin through the link, which completes the coupling operation.

In the drawing, A represents a draw-head of the common shape and construction, which is attached to the bottom of the car-frame. A longitudinal top slot, *a*, of the draw-head admits the swinging of a crooked pin-bar, B, therein, which pin-bar is keyed by its rear end to a lateral shaft, C, having hand-wheels *b*, ratchets *d*, and pawls *e* at both sides of the car, so as to be operated therefrom, the coupling-pin D being pivoted to the front end of the same. The crooked pin-bar B may also be connected by a vertical rod, *f*, pivoted thereto to the top of the car, so that the coupling-pin D may be raised for uncoupling either by means of the hand-wheel at each side, or by the upright rod from the top. The pawls *e* drop into the ratchets *d*, and retain the pin in raised position until the pawls are released from the side of the car, or by a lever, *f'*, passing from the top of the car to engage in suitable manner the lateral shaft *e'* of the pawls, and release the same from the ratchets. The pins are thereby instantly dropped for coupling the cars without requiring the stepping between the same. The coupling-link may be guided into the draw-head by means of a frame, E, which is preferably attached by eyes and set-screws to a lateral shaft, *g*, above the draw-head. Frame E is of U shape, and has a rectangular bend in downward direction, so as to pass over the top of the draw-head to the front part at both sides of the mouth of the same. Top and bottom projecting lugs or shoulders *h* of the draw-head protect the link guide-frame against being battered or damaged by the concussions of the draw-heads. The inclined position of the link, so as to couple with higher or lower draw-heads, is produced by swinging up the guide-frame until the required inclination of the link is obtained. This may be assisted by providing the links with lateral grooves at both sides and ends to rest more securely on the link-frame. A handle at both ends of the frame-shaft serves for the convenient adjustment of the frame. A recess or cavity at the front part of the car-frame admits the swinging back of the pin-bar and guide-frame when the draw-head has to be set as far back as possible under the car. In platform-cars this recess may be dispensed with or provided for in the platform.

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

The combination of the crooked bar B, coupling-pin D, transverse shaft C, ratchet-and-pawl mechanism *d e*, lifting-rod *f*, and pawl-unlocking rod *f'* with the draw-head A, as and for the purpose set forth.

JOHN H. ACTON.

Witnesses:

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