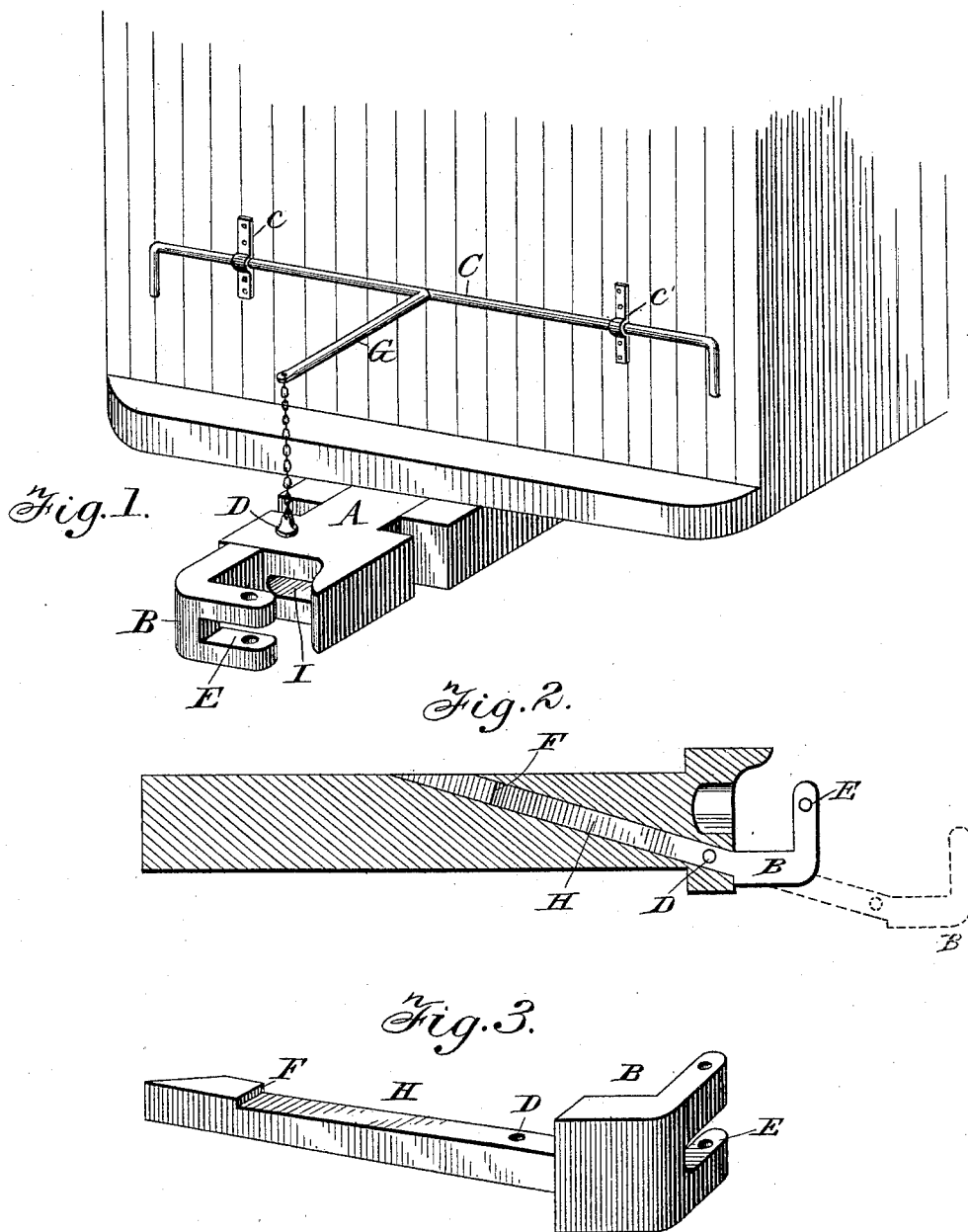


(No Model.)

T. McK. STUART.
CAR COUPLING.

No. 469,284.

Patented Feb. 23, 1892.



Witnesses:
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L. E. Stuart-

Inventor.
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UNITED STATES PATENT OFFICE.

THOMAS MCK. STUART, OF COUNCIL BLUFFS, IOWA.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 469,284, dated February 23, 1892.

Application filed April 21, 1891. Serial No. 389,871. (No model.)

To all whom it may concern:

Be it known that I, THOMAS MCK. STUART, a citizen of the United States, residing in the county of Pottawattamie, State of Iowa, have
5 invented a new and useful Car-Coupler, of which the following is a specification.

My invention relates to improvements in vertical plane car-couplings in which a draw-bar is constructed in two parts, so that by means of
10 a draw-head made to slide longitudinally and diagonally through the bar the projecting jaws of the opposing draw-heads may be made to approach and clasp each other, thereby effecting a prompt and secure coupling of
15 cars and by a reverse action the release of said coupling without exposure of the person of the operator between the cars at the time of coupling or uncoupling. I attain these objects by a mechanism illustrated in the accompanying drawings.

Figure 1 represents a car with the coupler in proper position. Fig. 2 is a sectional view of the draw-bar horizontally bisected on the upper surface of the sliding draw-head. Fig.
25 3 shows sliding draw-head disengaged from the bar.

C is a crank attached to the car end by clasps at *c* and *c'*, so as to revolve with facility.

30 G represents an arm projecting from the crank C, with chain attached, by means of which the pin D is lifted vertically in its place by the operator standing at the side of the car actuating the rod C.

35 B is a laterally-projecting jaw in the form represented in Fig. 3, which is constructed with a shoulder to impinge upon the end of the draw-bar A at its right-hand corner.

40 H is a rectangular extension of the draw-head which passes longitudinally and obliquely through the draw-bar A from the forward right-hand corner to the opposite side at a point to the rear of the center of the draw-bar.

45 D' represents the hole into which the pin D is dropped when the sliding draw-head is pushed into its position in this aperture to effect a coupling.

50 F in Fig. 3 represents an offset in the sliding bar or draw-head for the purpose of catching and holding the same by means of the pin when the sliding bar is being drawn forward in the groove in uncoupling cars. The upper

surface of the sliding draw-head B is made to incline gradually from the pin-hole to the
55 point of projection at F, admitting the ready movement of the pin on this surface within these limits as the sliding bar is moved backward or forward.

E represents a pin-hole for the use of a link
60 in coupling with the ordinary link-and-pin couplers, and I represents a groove or slot in the forward surface of the draw-bar to the rear of the movable draw-head, by means of which a link may be held in a horizontal position in connection with the projecting jaw
65 B to secure facility in coupling with link-and-pin couplers.

My device is designed to operate in this manner: In releasing the coupling; the pin
70 being lifted by means of a forward and upward movement of the crank C, admitting the sliding bar B to be drawn forward and obliquely to the right until the opposing draw-head is released from its grasp, and in coupling
75 the projecting end of the approaching draw-bar impinges upon the sliding draw-head and pushes it forward and obliquely to the left until the two draw-heads are made to securely clasp each other, when the pin D
80 drops by gravity into the hole in the sliding bar, thereby securing the coupling.

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

1. A draw-bar with a rectangular horizontal aperture passing obliquely through it from one of the forward corners to the opposite side, in which a sliding draw-head is made to operate, so that by a rearward and lateral movement at the same time vertical jaws may be
85 made to clasp and hold each other, thereby effecting a coupling.

2. A sliding bar terminating at the forward end with a vertical jaw or draw-head so constructed as to move readily in the rectangular
95 oblique longitudinal aperture, as described, having a hole at the forward end for a pin to secure the coupling and a vertical offset on the rear end, as at F, for the purpose of preventing the withdrawal of the bar entirely
100 from the aperture in releasing the coupling.

THOMAS MCK. STUART.

Witnesses:

N. P. DODGE,
F. C. LOUGEE.