(No Model.)

G. M. ADAMS.

CAR COUPLING.

No. 321,935. Patented July 14, 1885.

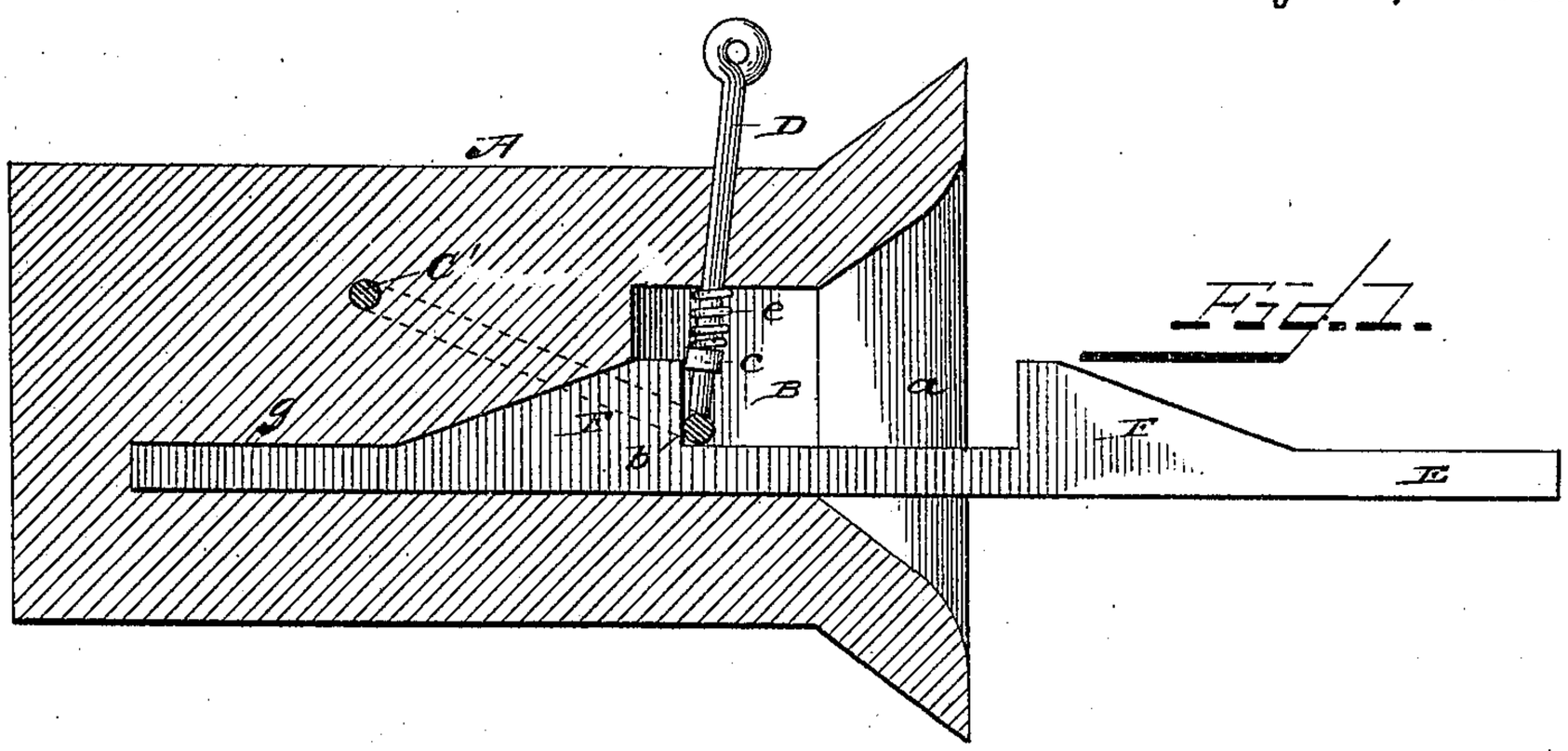

Fig. 1.

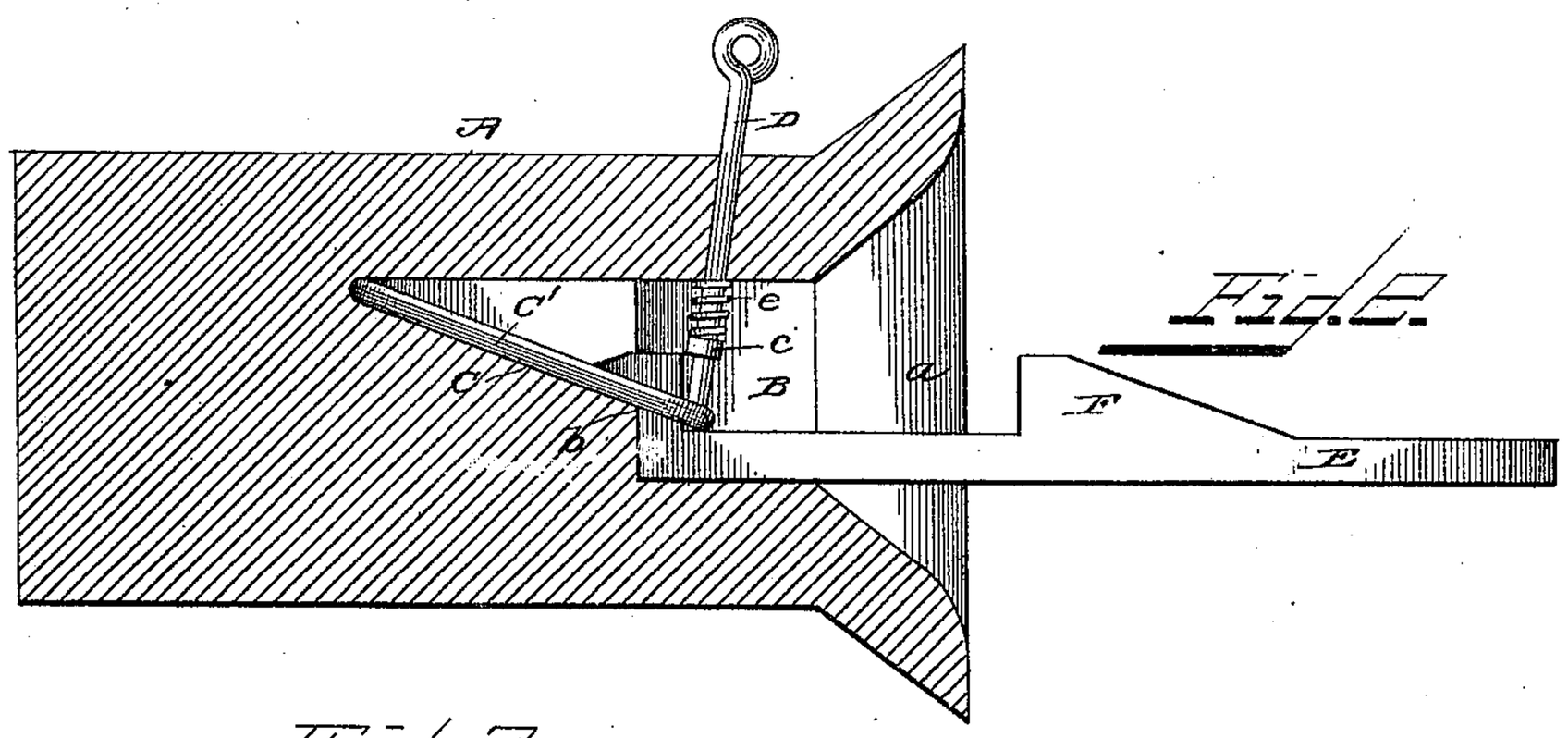

Fig. 2.

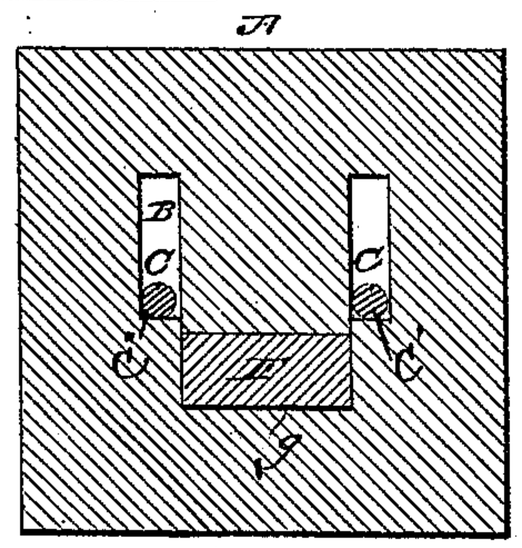

Fig. 3.

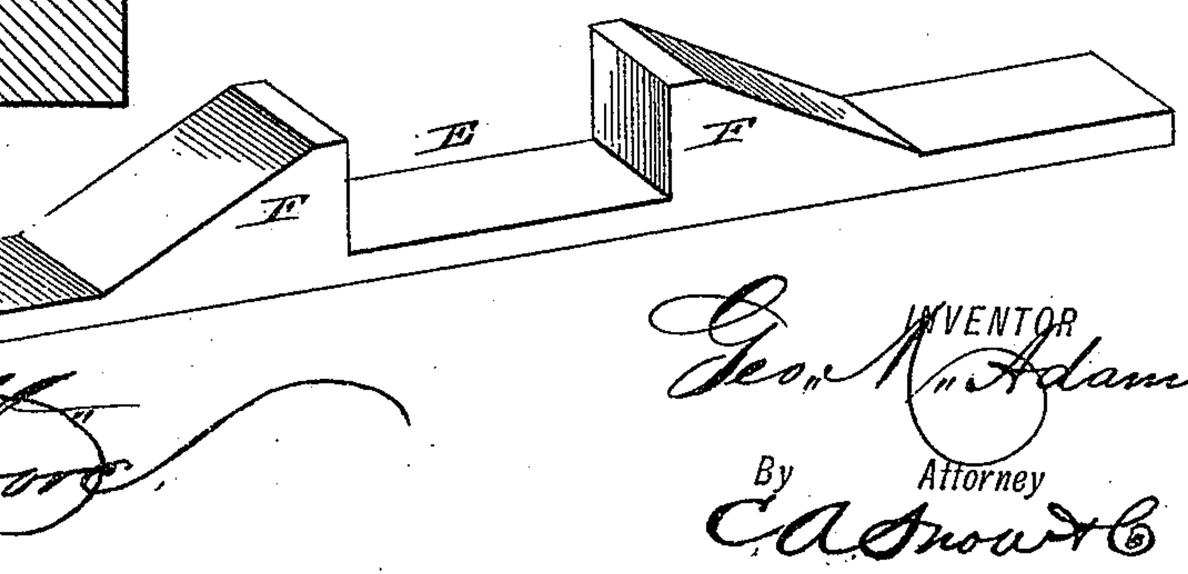

Fig. 4.

WITNESSES

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CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 321,935, dated July 14, 1885.

Application filed May 29, 1885. (No model.)

To all whom it may concern:

Be it known that I, GEORGE M. ADAMS, a citizen of the United States, residing at Franklinton, in the county of Henry and State of Kentucky, have invented a new and useful Improvement in Car-Couplings, of which the following is a specification, reference being had to the accompanying drawings.

My invention relates to car-couplings, the object being to provide devices of this character which shall be positive, certain, and effective in their operation, and to provide devices whereby the cars may be automatically coupled and readily and quickly uncoupled.

With these ends in view the invention consists in the improved construction and combinations of parts hereinafter fully described, and pointed out in the claims.

In the drawings, Figure 1 is a central longitudinal vertical section of a draw-head having my improvements applied thereto. Fig. 2 is a longitudinal vertical section taken on a line at one side of the center, and showing the pivoted coupling link or yoke in full lines. Fig. 3 is a transverse vertical section, and Fig. 4 is a detail view, of the coupling-bar.

In the accompanying drawings, in which like letters of reference indicate corresponding parts in all the figures, A represents the draw-head, which may be provided with the usual flaring mouth, *a*. The draw-head A is provided at its forward end with an opening, B, which is of sufficient size to admit the head of the coupling-bar, as will be more fully explained. The end wall of the opening B is provided on its sides with grooves or channels C, the lower sides or ends of which are inclined downwardly from their rear ends, thus forming shoulders *b*.

C′ represents the link or coupling yoke, the rear ends of which are pivoted in the grooves or channels C at the rear ends thereof, the inclined sides of the said grooves or channels serving as stops for the link and supporting it in the position shown in Fig. 1, so that it may engage the head of the coupling-bar.

Attached to the link C′ is a bar or rod, D, the end of which extends upwardly through an opening in the upper side of the draw-head. Upon this bar D, adjacent to its point of attachment to the link C′, is formed a head, *c*. Upon the rod D is a spiral spring, *e*, which bears against the head *c* at one end and against the inner upper side of the draw-head at its other end, thus holding the coupling yoke or link in engagement with the coupling-bar and preventing it from jumping while the cars are in motion. The upper end of this rod may be bent to form a loop for the attachment of a rope or chain, which rope or chain may be carried to the tops of the car and pass over a pulley, thus allowing the cars to be uncoupled from the tops of the cars. As this construction is in common use in car-couplings, it is thought that an illustration thereof is not necessary.

E represents the coupling-bar, which is formed a slight distance from each end with a projection or shoulder, F, which projections or shoulders have inclined or beveled outer faces, while their inner faces are perpendicular. The draw-head is provided on its inner lower side with a longitudinal passage, *g*, of a size sufficient to receive the end of the coupling-bar, which fits therein.

The operation is as follows: The coupling-bar enters the draw-head of the adjacent car, and the inclined or beveled side of the shoulder or projection strikes the coupling link or yoke, the end of the coupling-bar entering the passage *g*. The incline side of the shoulder or projection on the coupling-bar raises the link, and as the bar is forced farther into the draw-head it drops in the space between the shoulders or projections and bears against the vertical inner side of one of the projections, where it is held by the spiral spring. To uncouple the cars, the rod D is raised, which raises the coupling link or yoke and allows the bar to be withdrawn.

A car-coupling constructed as before described is certain and positive in its operation, strong and durable, and not likely to get out of order.

Having thus described my invention, I claim—

1. In a car-coupling, the combination, with a draw-head, of a coupling link or yoke pivoted within the same at its rear end, the inclined grooves or channels C, located on the inner side of the draw-head and adapted to limit the downward movement of the link or yoke, a rod attached to the link and passing through an opening in the draw-head, and a

spiral spring on said rod between the link and draw-head, substantially as set forth.

2. The combination, with a draw-head, of the pivoted coupling yoke or link, shoulders to limit the downward movement of the same, and a coupling-bar having the projections formed with inclined outer sides and perpendicular inner sides, and means, substantially as described, for holding the yoke or link in engagement with the coupling-bar, as set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

GEORGE M. ADAMS.

Witnesses:

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W. H. ELLIS.