

(No Model.)

J. J. PADDEN.
Car Coupling.

No. 232,411.

Patented Sept. 21, 1880.

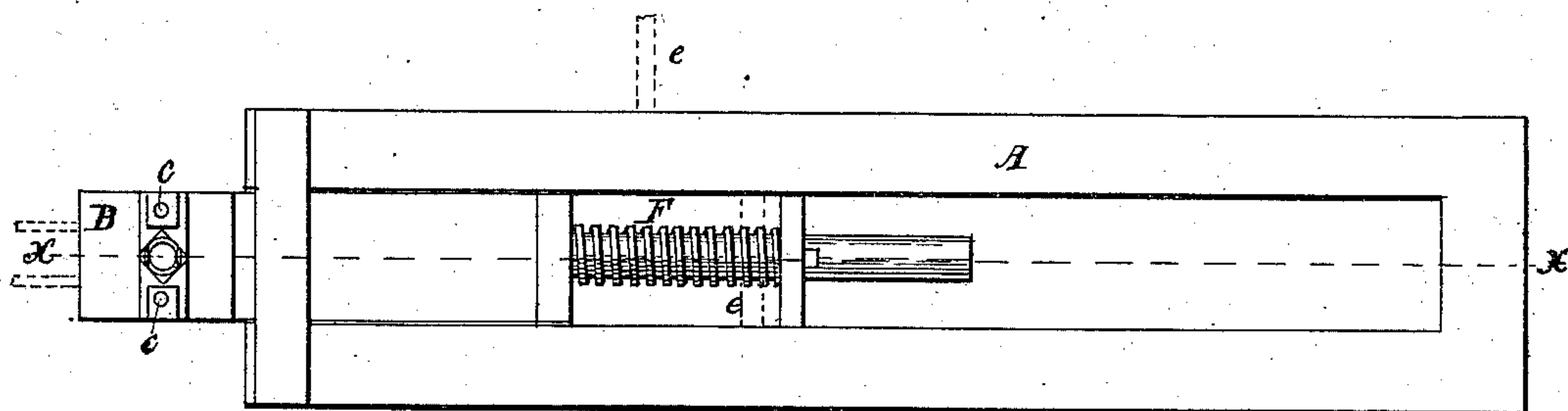


Fig 1

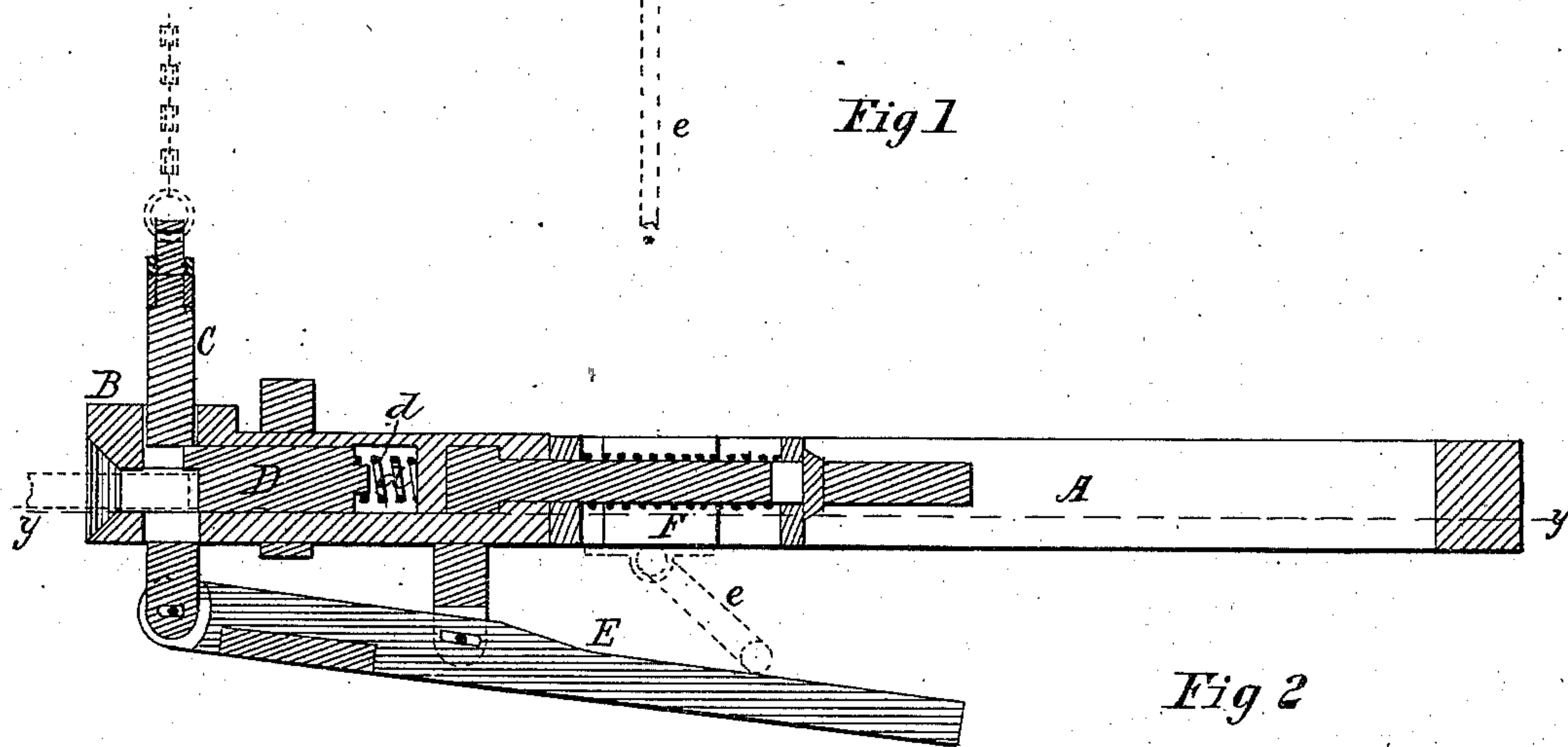


Fig 2

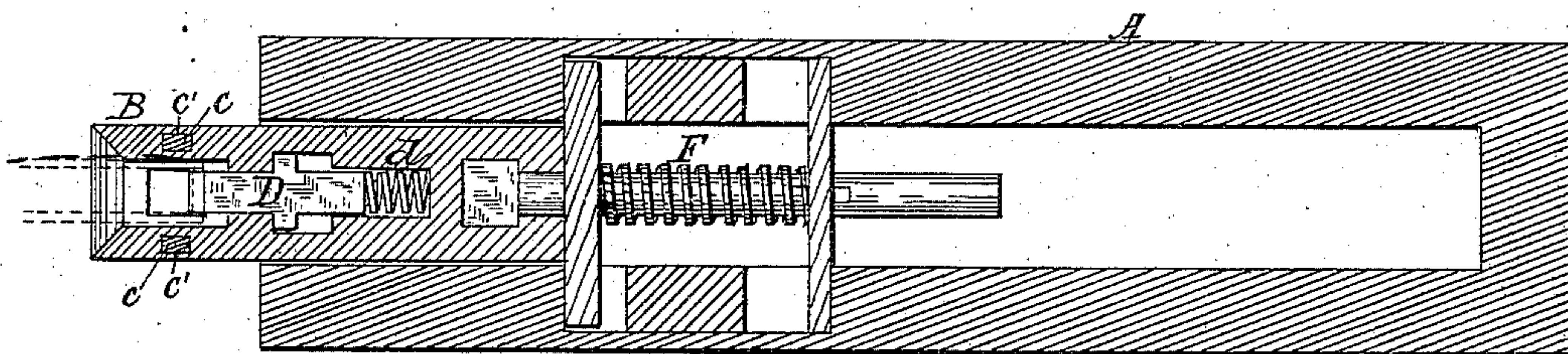
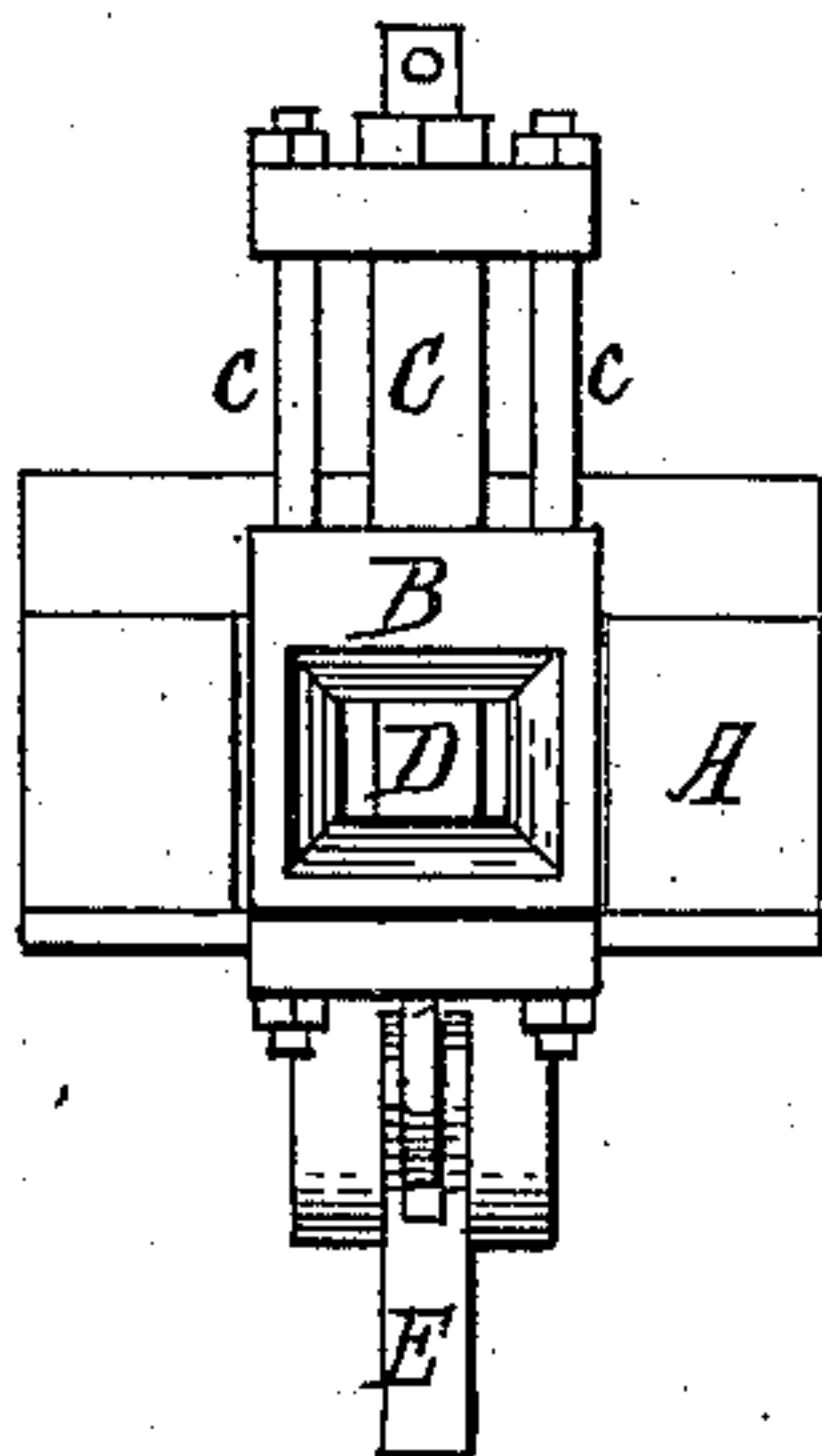


Fig 3

Fig 4



Witnesses

W. C. Corlies
H. M. Rice

Inventor
John J. Padden

By Dixon & Smith
Attorneys

UNITED STATES PATENT OFFICE.

JOHN J. PADDEN, OF CHICAGO, ILLINOIS, ASSIGNOR OF ONE-HALF OF HIS
RIGHT TO JAMES P. PADDEN, OF SAME PLACE.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 232,411, dated September 21, 1880.

Application filed April 13, 1880. (No model.)

To all whom it may concern:

Be it known that I, JOHN J. PADDEN, of Chicago, Illinois, have invented a new and useful Improvement in Car-Couplers, of which
5 the following is a specification.

The object of my invention is to provide a car-coupler which shall be self-operating in the coupling of cars, and which shall allow them to be uncoupled easily and expeditiously without imposing in either case the necessity of an operator going between the cars for the purpose.

The invention is illustrated in detail in the drawings.

15 Figure 1 is a top view. Fig. 2 is a longitudinal vertical section. Fig. 3 is a longitudinal transverse section, and Fig. 4 is an end view of the device.

Similar letters indicate similar parts in the
20 different figures.

A is an ordinary draw-bar, attached in the usual manner to a car. B is a draw-head in which the link is inserted which couples the cars. C is the pin which passes through and
25 secures the link. The upper end of this pin passes through a cross-piece, and is secured therein by a nut. In the outer extremities of this cross-piece are also secured the upper ends of two guide-rods, *c c*, which pass downward
30 through suitable openings *c' c'* in the draw-head, and are secured to a similar cross-piece at their lower extremities. The guide-rods *c c* and the cross-pieces thus form a rigid frame, which moves up and down freely in the openings in the draw-head, the pin C projecting
35 downward from the upper cross-piece, and being a sufficient length to pass through and secure the coupling-link when the frame is permitted to drop to its lowest position, and when
40 raised to entirely clear the same, the guiding-rods being made of the proper length to secure this result.

D is a movable metal block secured in the rear extension of the cavity in the draw-head
45 provided for the insertion of the coupling-link immediately back of the opening through which the pin C drops into the draw-head, made so as to play freely backward and forward within a fixed limit, and capable of projecting into the link-cavity, and when so doing
50 coming directly under the opening through

which the pin C drops, the pin C thus resting upon and being sustained by it. In the rear of this block is a spring, *d*, which operates upon it, pressing it forward so that when not
55 restrained it projects into the link-cavity, as stated. Projections upon the sides of the block, striking in its movements against shoulders provided in the sides of the chamber, regulate the distance through which it can move. 60

E is a lever pivoted at its fulcrum to the lower side of the draw-head and at its extremity to the lower cross-bar of the frame carrying the link-pin; and by which the frame
65 and thus the pin can be raised.

e is a device projecting to the sides of the car by which the lever is operated. In the upper end of the link-pin is an eye provided for the attachment of a chain designed to extend and be fastened to the top of the car, by means of
70 which a person on the top of the car can raise the link-pin and uncouple the cars.

F is an ordinary device for attaching the draw-head to the draw-bar. When ready for use the frame with the link-pin is raised, and
75 the block D, being pressed forward by the spring *d*, projects into the link-cavity under the pin C, supporting it and the frame. When the car carrying the draw-head described comes in contact with the car to which it is designed
80 to be coupled, the link, being in the latter car, enters the link-cavity, as denoted by the dotted lines in the drawings, and, striking the block D, presses it back beyond and from under the link-pin, and being thus left without support
85 the pin with the frame to which it is attached drops by the weight of itself and the frame, the guide-rods *c c* sliding through the openings in the draw-head, and the pin thus passes through and secures the link. When it is de-
90 sired to uncouple the car the pin is raised, as already stated, by means of the chain extending to the top of the car or by the lever E. This lever is operated by the device *e*, which
95 consists of an iron rod extending across and under the car, secured in bearings and bent at its extremities and at its middle to form a crank at each of these points, that at the middle impinging upon the end of the lever E, so that a person standing at the side of the car,
100 by pressing upon the crank-shaped extremity, will press down the lever and raise the link-pin.

Various devices to accomplish this purpose will suggest themselves to the mind of any mechanic, this being described as one of many.

In draw-heads made in accordance with this
5 specification the link will be so supported that it will enter the draw-head of another car without guidance, thus saving the necessity of any person going between the cars, and so avoiding danger and accidents which would other-
10 wise frequently occur.

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

In a car-coupling, the combination of the guide-rods *c c*, connected by cross-pieces at top and bottom, the link-pin C, the block D, spring 15 *d*, the lever E, running back under the center of the car and pivoted thereto at its fulcrum, and the rod *e*, substantially as and for the purposes set forth.

JOHN J. PADDEN.

In presence of—

T. S. E. DIXON,
PLINY B. SMITH.