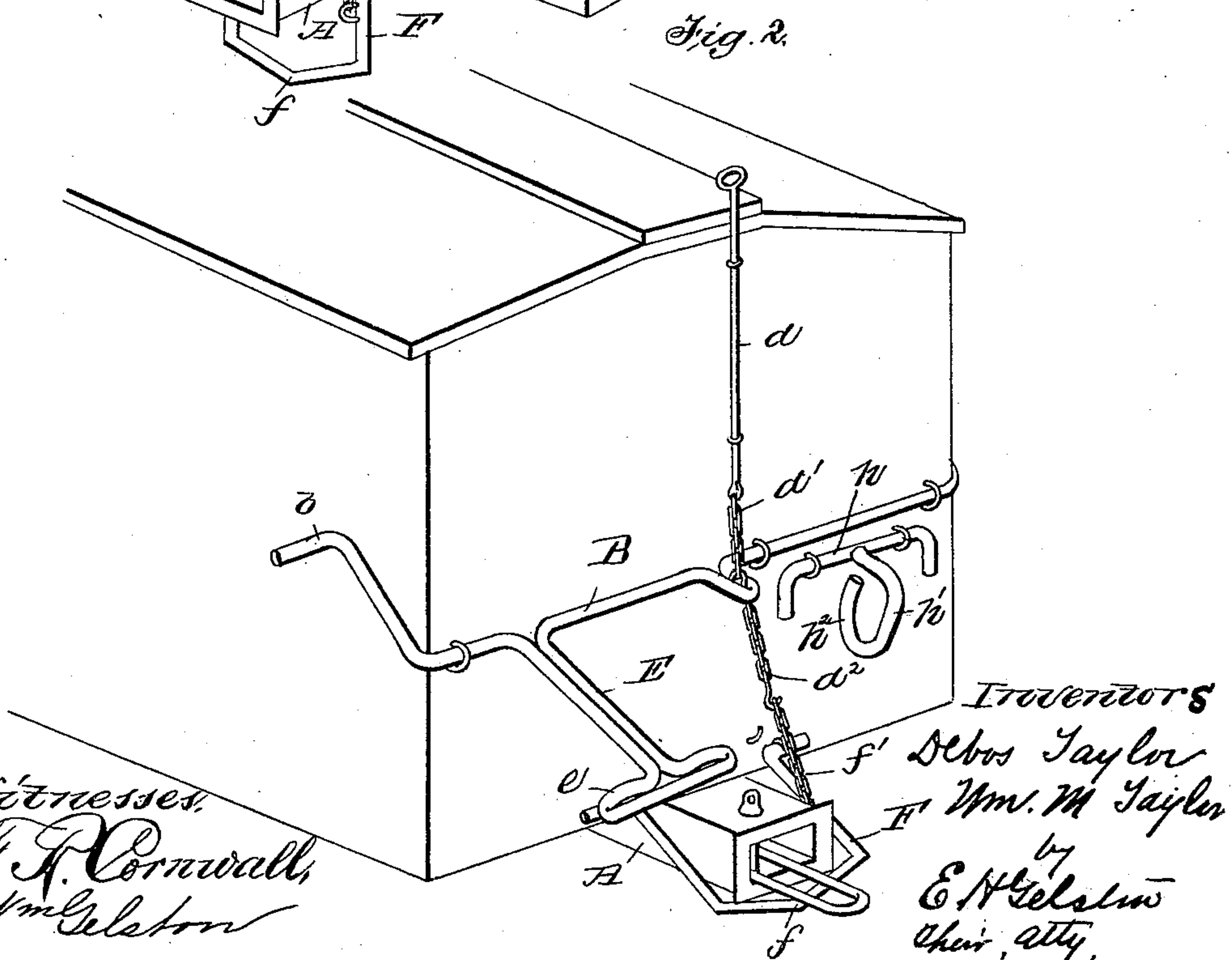
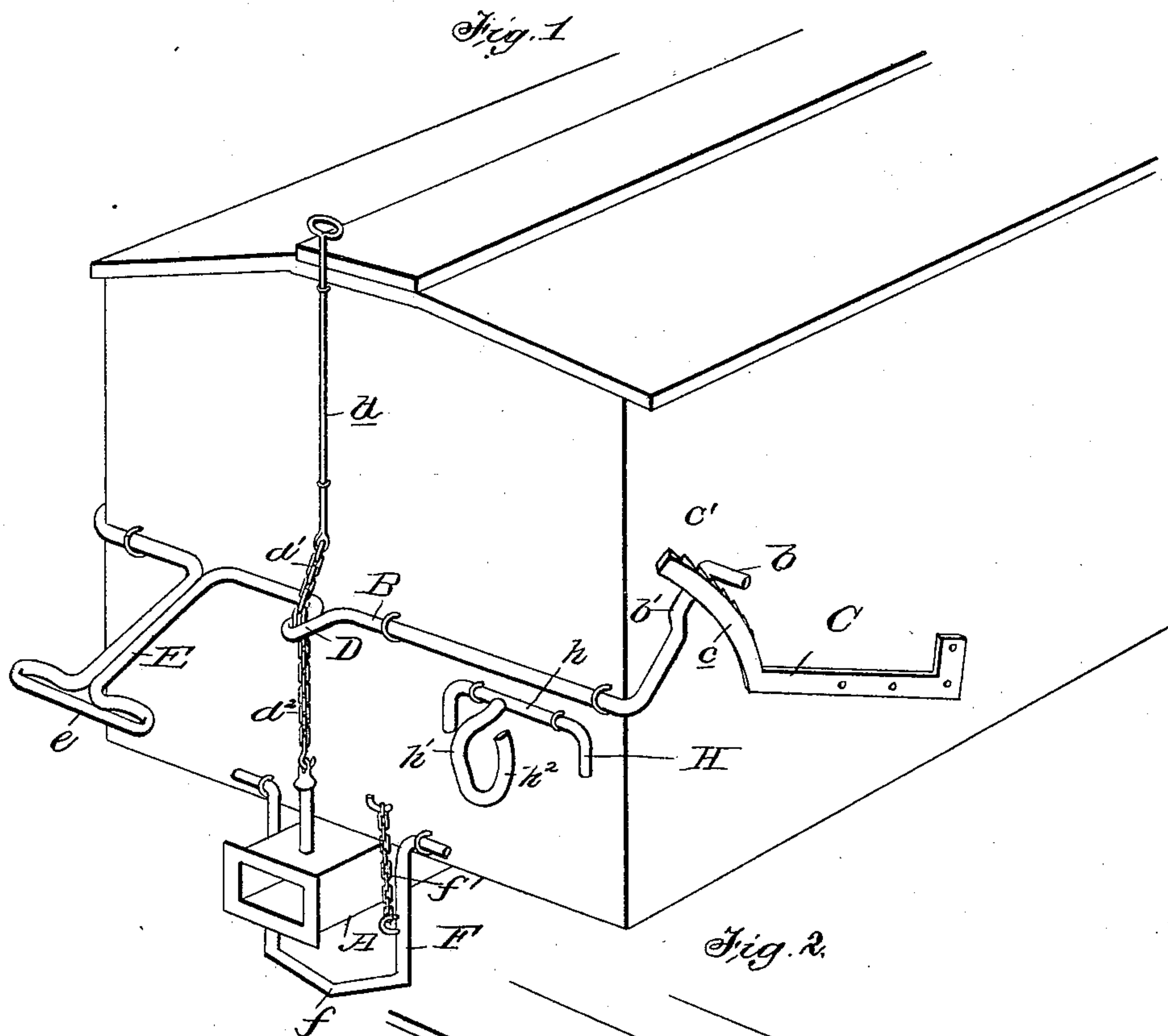


(No Model.)

D. & W. M. TAYLOR.  
CAR COUPLING.

No. 466,123.

Patented Dec. 29, 1891.



Witnesses.  
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# UNITED STATES PATENT OFFICE.

DEBOS TAYLOR AND WILLIAM M. TAYLOR, OF BLACK JACK GROVE, TEXAS.

## CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 466,123, dated December 29, 1891.

Application filed July 29, 1891. Serial No. 401,091. (No model.)

*To all whom it may concern:*

Be it known that we, DEBOS TAYLOR and WILLIAM M. TAYLOR, citizens of the United States, residing at Black Jack Grove, in the county of Hopkins and State of Texas, have invented certain new and useful Improvements in Car-Couplers; and we do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

This invention relates to an improvement in automatic car-couplers; and it consists in the certain peculiar features of construction and combination of parts more fully described hereinafter, and definitely pointed out in the claims.

The object of our invention is to provide an automatic coupler that can be attached to any ordinary car with but little expense and without changing the draw-head now in use, which is at the same time strong, durable, and very simple. This object we attain by the construction illustrated in the accompanying drawings, in which like letters of reference refer to like parts in the several views, and in which—

Figure 1 is a perspective view of the end of a car, showing our improved pin-supporting mechanism attached thereto; and Fig. 2 is a similar view of our improved link-support.

In the drawings, A represents a draw-head attached in any suitable manner to the end of the car, having a recess and a pin opening therein in Fig. 1, in which is shown the pin-supporting mechanism.

B is a horizontal shaft secured in bearings on the end of the car and extending entirely across the same, and carries suitable operating-levers *b* on the ends thereof. Either one or both of these levers may be formed with an offset *b'*, carrying it into the side of the car.

C is a flat spring secured to the side of the car at one end, the other end being preferably curved out, as at *c*, and formed with teeth *c'*, which engages over the lever *b*, where it is carried into the side of the car. Two of these

springs may be used, if desired, one on either side of the car; but one is all that is necessary.

D is a pin-supporting arm on the horizontal shaft B, and is connected with the pin and the operating-rod D, which is secured in bearings on the upper end of the car and extends above the top of the same by chains or other connections *d'* and *d''*, respectively.

E is an actuating-arm on the shaft B to one side of the center thereof, and has a cross-bar *e* on its outer end in Fig. 2, in which is shown the link-supporting mechanism.

F represents a link-lifter fastened in bearings on the end of the car and formed with an offset *f*, which extends out in front of the draw-head.

On one side of the link-lifter F is secured operating-chain *f*, which is adapted to be locked to the pin-supporting chain in the manner shown.

H is a projection consisting of the horizontal bar *h* and the outwardly-extending arm *h'* and inwardly-extending curved spring-arm *h''*, said bar *h''* being directly in line with the cross-bar on the actuating-arm E on the opposite car. The arm *h''* is a spring-arm to cushion the projection against the impact of the actuating-arm, and it may be thrown back out of engagement with the actuating-arm E, the horizontal bar *h* being pivoted to the end of the car.

The operation of our device is as follows: The link secured in the draw-head by a pin is raised to engage with the adjacent draw-head by the offset *f* on the rod F, the latter being actuated by the lever at the side of the car or by suitable means extending to the top of the car. When the cars come together, the projection H on an adjacent car engages with the cross-head on the actuating-arm of the pin-supporting mechanism, forcing it downward, thereby disengaging the lever on the shaft from under the flat spring and allowing the pin to drop into the pin-opening and through the link, thus coupling the cars.

In constructing the shaft B, we form a loop therein which constitutes the arm D. We also form the actuating-arm, bending the rod out at right angles, looping the ends to form a T, and finally carry the other end back to com-



plete the formation of the shaft. This construction, together with the spring-arm of the projection, forms a yielding bearing against which the projection on the opposite car engages, as before stated, thereby relieving the car from the impact of the two parts. The arm E is preferably held obliquely in a downward direction, so that when the projection engages the end thereof it is quickly moved down.

10 We are aware that many minor changes in the construction and arrangement of the parts of our device can be made without in the least departing from the nature and principle of the invention.

15 Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

20 1. In a car-coupler, the combination, with a recessed draw-head having a vertical pin-opening therein and a flat spring secured at one end to the side of the car, of a horizontal shaft secured in suitable bearings on the side of the car, a pin-supporting arm on the shaft,

a pin in the pin-opening, a connection between the pin and the arm, and an actuating-arm on the shaft, substantially as described. 25

2. The combination, with the end of a car having draw-head thereon, of a shaft on the end of the car, an obliquely-arranged operating-arm on the shaft, a pin, a connection between the same and the shaft, a retaining-spring on the side of the car with which the ends of the shaft engage, a spring projection on the opposite car with which the actuating-arm of the adjacent car comes in contact when the cars approach each other, and a link-lifter connected with the shaft, substantially as described. 30 35

In testimony whereof we affix our signatures in presence of two witnesses.

DEBOS TAYLOR.  
WILLIAM M. TAYLOR.

Witnesses:

WILLIAM T. MCKINNEY,  
JOHN MORELAND.