

(No Model.)

B. M. LONG.
CAR COUPLING.

No. 535,765.

Patented Mar. 12, 1895.

Fig. 1.

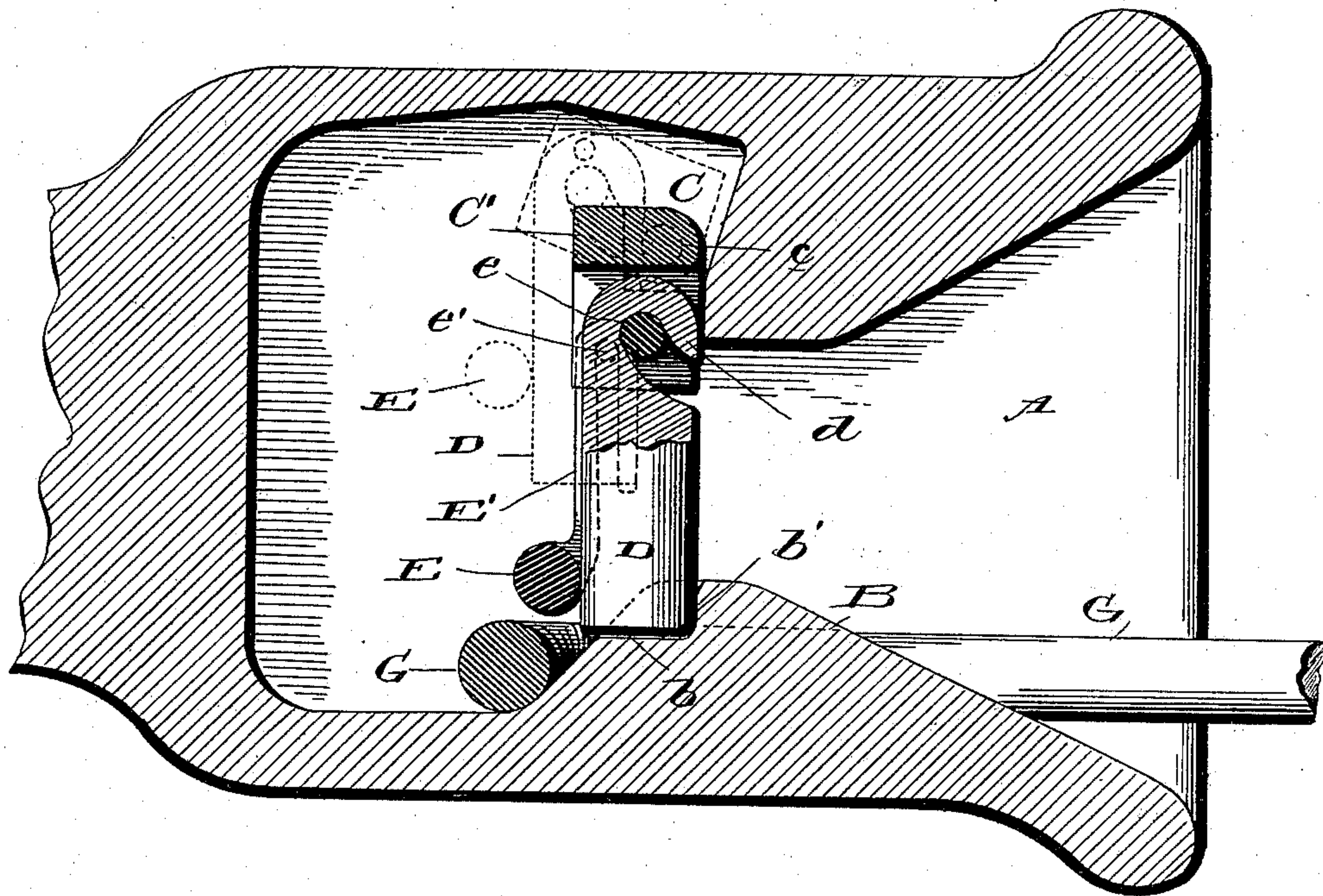
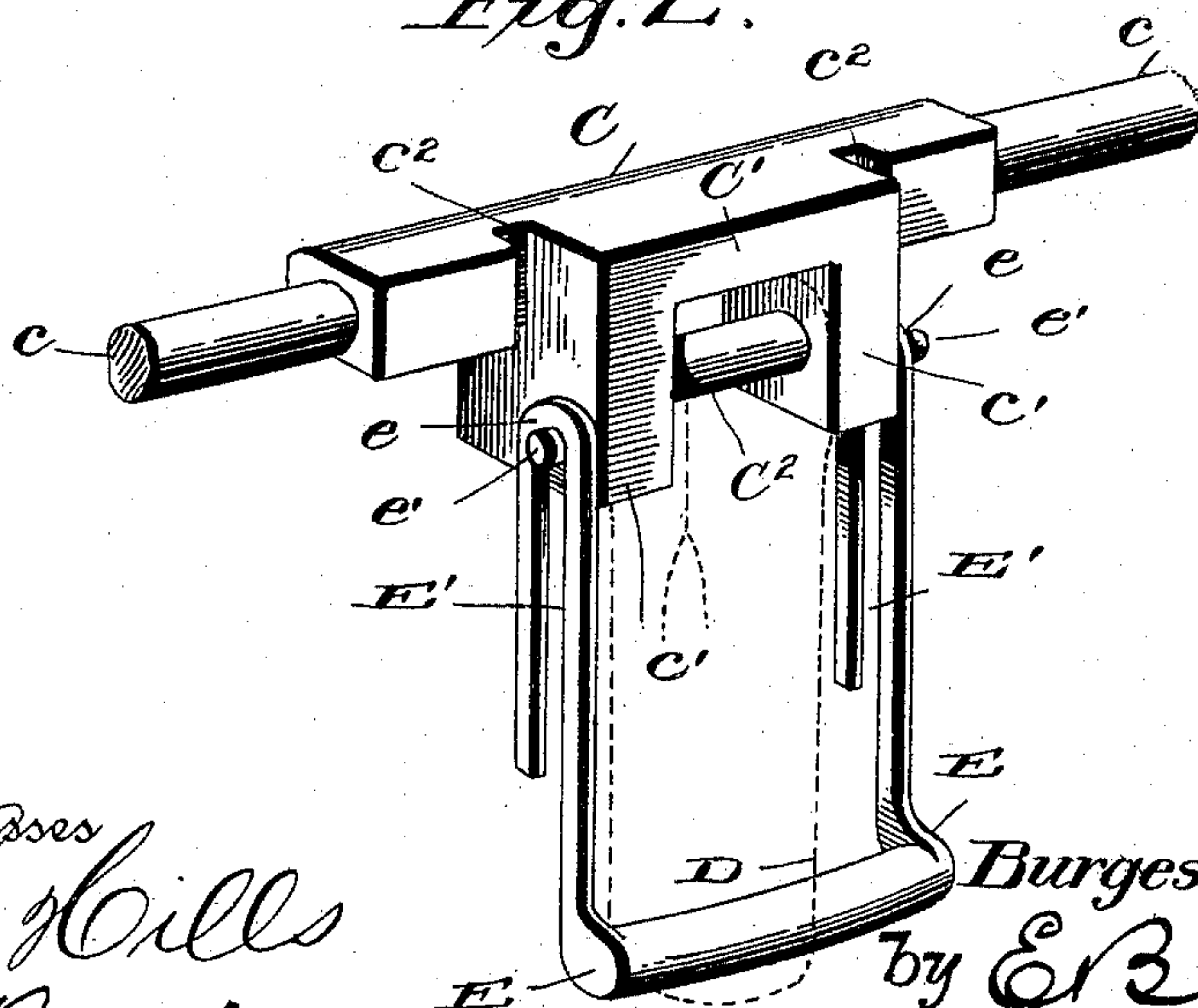


Fig. 2.



Witnesses
L. C. Mills
E. A. Bond

Inventor:
Burgess M. Long.
by *E. B. Stocking*
Attorney

UNITED STATES PATENT OFFICE.

BURGESS M. LONG, OF DEKOVEN, KENTUCKY.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 535,765, dated March 12, 1895.

Application filed May 26, 1894. Serial No. 512,543. (No model.)

To all whom it may concern:

Be it known that I, BURGESS M. LONG, a citizen of the United States, residing at Dekoven, in the county of Union, State of Kentucky, have invented certain new and useful Improvements in Car-Couplings, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to certain new and useful improvements in car couplings, and it has for its objects among others to provide an improved simple, cheap and efficient coupling wherein the link will readily enter and be guided to its proper position, actuating a pivoted coupling pin by its inward movement and when the link has passed the pin, the latter by gravity, and it may be aided by a weight, falls to its normal position, locking the link against displacement, the link being designed to be held in its horizontal position by said weight. I form the coupling pin separate from its cross-bar on which it is pivoted so that it may be readily taken out and put back without removing the cross-bar.

Other objects and advantages of the invention will hereinafter appear and the novel features thereof will be particularly pointed out in the claims.

The invention is clearly illustrated in the accompanying drawings, which, with the letters of reference marked thereon, form a part of this specification, and in which—

Figure 1 is a vertical longitudinal section through my improved coupling with the link in position. Fig. 2 is a perspective view of the cross-bar removed and showing by full lines the weight and by dotted lines the coupling pin in position.

Like letters of reference indicate like parts in both of the views.

Referring now to the details of the drawings by letter, A designates the mouth of the draw-head which is formed with inwardly-inclined walls to guide the link to its proper position as it enters, and A' designates an enlarged chamber within the mouth of the draw-head. The bottom wall of the draw-head within its mouth is provided with an inclined surface B, which may be formed integral therewith or it may be formed separate therefrom and rigidly secured thereto in any suitable manner. It is arranged centrally of the width of the

draw-head and at its highest point is cut away at the rear as shown at *b* to form a recess for the reception of the lower end of the coupling pin, and a shoulder *b'* against which the said pin impinges to limit its forward movement, as seen more clearly in Fig. 1. To the rear of this cut-away portion the incline extends to the rear as seen in Fig. 1.

C is the cross-bar which is held in the walls of the mouth of the draw-head for rotary movement, and any suitable means may be provided for turning this cross-bar or shaft to uncouple the cars when necessary, but as this means forms no part of the present invention it has not been illustrated. The central portion of the cross-bar, that is the portion between the round end portions *c*, is formed with the depending portion C' between whose sides *c'* is arranged the shaft C². This depending portion extends beyond the cross-bar proper as seen best in Fig. 2 and vertical notches or grooves *c*² are provided therein for a purpose which will soon be apparent.

D is the coupling pin. It may assume any desired shape in cross section and the recess in the inclined surface of the bottom of the mouth of the draw-head should by preference conform to the shape thereof. This pin is formed at its upper end with a hook *d* having curved walls as seen in Fig. 1 and which is detachably engaged over the shaft or pin C² between the sides of the depending portion C'. This pin may be easily removed or placed in position without removing the cross-bar.

E is the weight. It is provided with the side arms E' which are bent upon themselves at their upper ends to form the loops or bends *e* which engage over pins or studs *e'* projecting from the sides of the depending portion of the cross-bar as seen best in Fig. 2. The weight is thus free to slide vertically without danger of displacement. It can be easily removed from or placed in position when desired.

G is the link of ordinary or any approved form of construction.

With the parts constructed and arranged substantially as above set forth the operation will be as follows: The link in entering the draw-head rides up the inclined surface B, striking the lower end of the coupling pin, and pushing it back to allow the link to pass over the incline and down the rearward in-

cline thereof, when the pin aided by the weight assumes its normal position as seen by full lines in Fig. 1, the weight not only aiding in returning the pin to its normal position but
5 serving to hold the link flat on the bottom of the draw-head while slack so as to facilitate coupling with another car. The freedom of movement of the weight lessens the power required to elevate the pin by the inward move-
10 ment of the link. The dotted lines in Fig. 1 illustrate the position assumed by the parts when the shaft C is turned to permit of uncoupling. The notches c^2 allow of the proper movements of the side arms of the weight.

15 Modifications in detail may be resorted to without departing from the spirit of the invention or sacrificing any of its advantages.

What I claim as new is—

20 1. In a car coupling, a removably mounted gravitating coupling pin provided with a weight serving the double function of aiding the pin in its return movement and keeping the link horizontal, said weight being slidingly connected with the pin, substantially as specified.
25

2. In a car coupling, a pivoted removably mounted gravitating coupling pin provided with a vertically movable weight slidingly connected with the pin support, as set forth.

30 3. In a car coupling, a draw-head provided

with a double inclined surface upon its bottom wall, combined with a removably pivoted coupling pin and a vertically movable weight bearing thereon and slidingly connected with the pin support, substantially as specified. 35

4. In a car coupling, the combination with the draw-head having an incline with recess and vertical shoulder, of a vertically disposed and removably pivoted coupling pin and a weight mounted for sliding vertical movement 40 and bearing upon said pin, as set forth.

5. In a car coupling, the combination with the cross bar having notches and depending portion with cross shaft, of a coupling pin having a hook detachably engaged over said 45 shaft for pivotal movement, substantially as specified.

6. The combination with the cross-bar with depending portion with notches and cross-shaft, and lateral pins, of the coupling pin 50 having a hook engaged over said shaft, and a weight bearing upon said pin and having vertical arms with bends engaged over said pins, substantially as specified.

In testimony whereof I affix my signature 55 in presence of two witnesses.

BURGESS M. LONG.

Witnesses:

S. S. HOLLINGSWORTH,
WM. SMITHE.