

(No Model.)

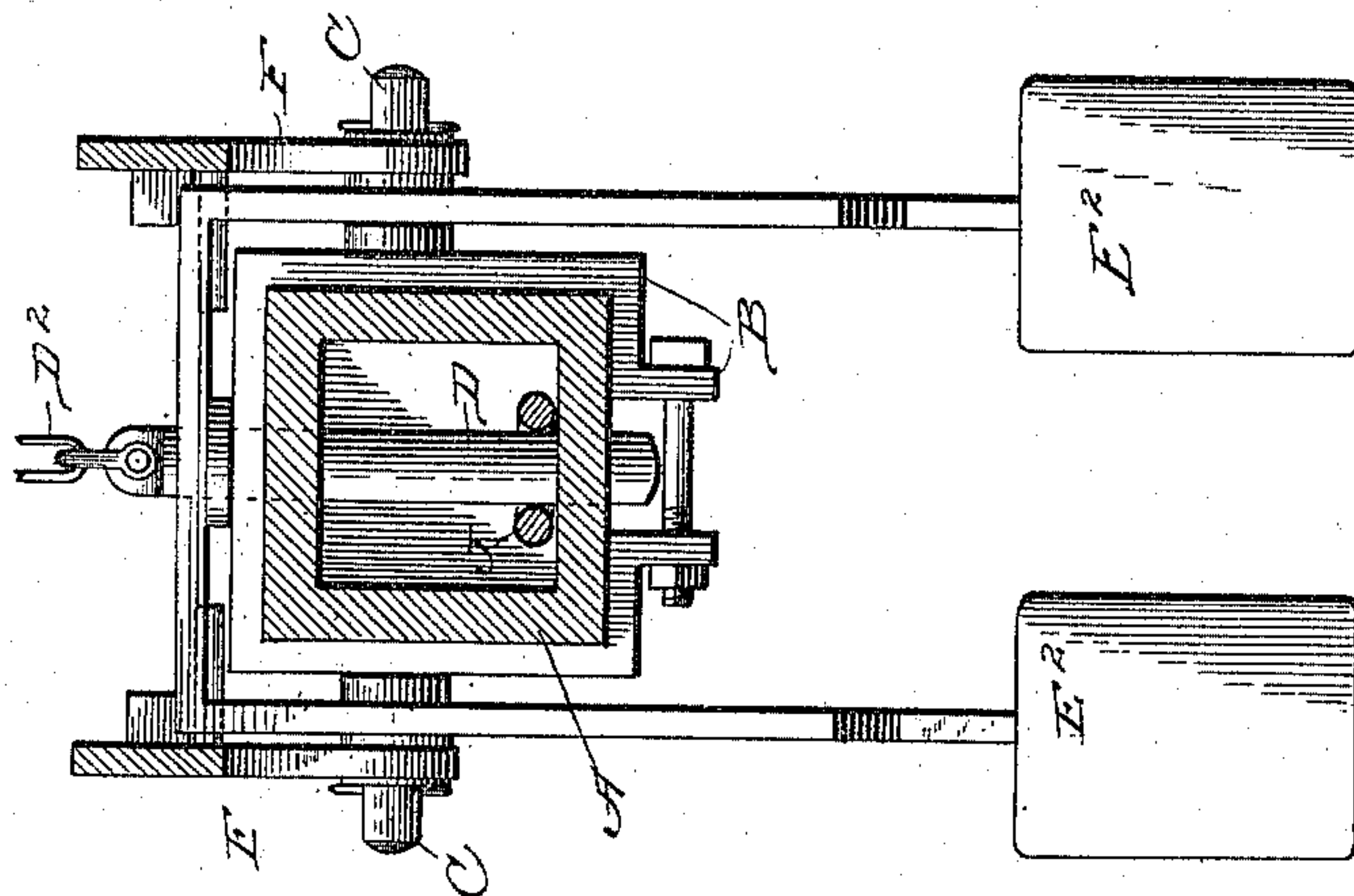
2 Sheets—Sheet 1.

D. C. MILLER.  
CAR COUPLING.

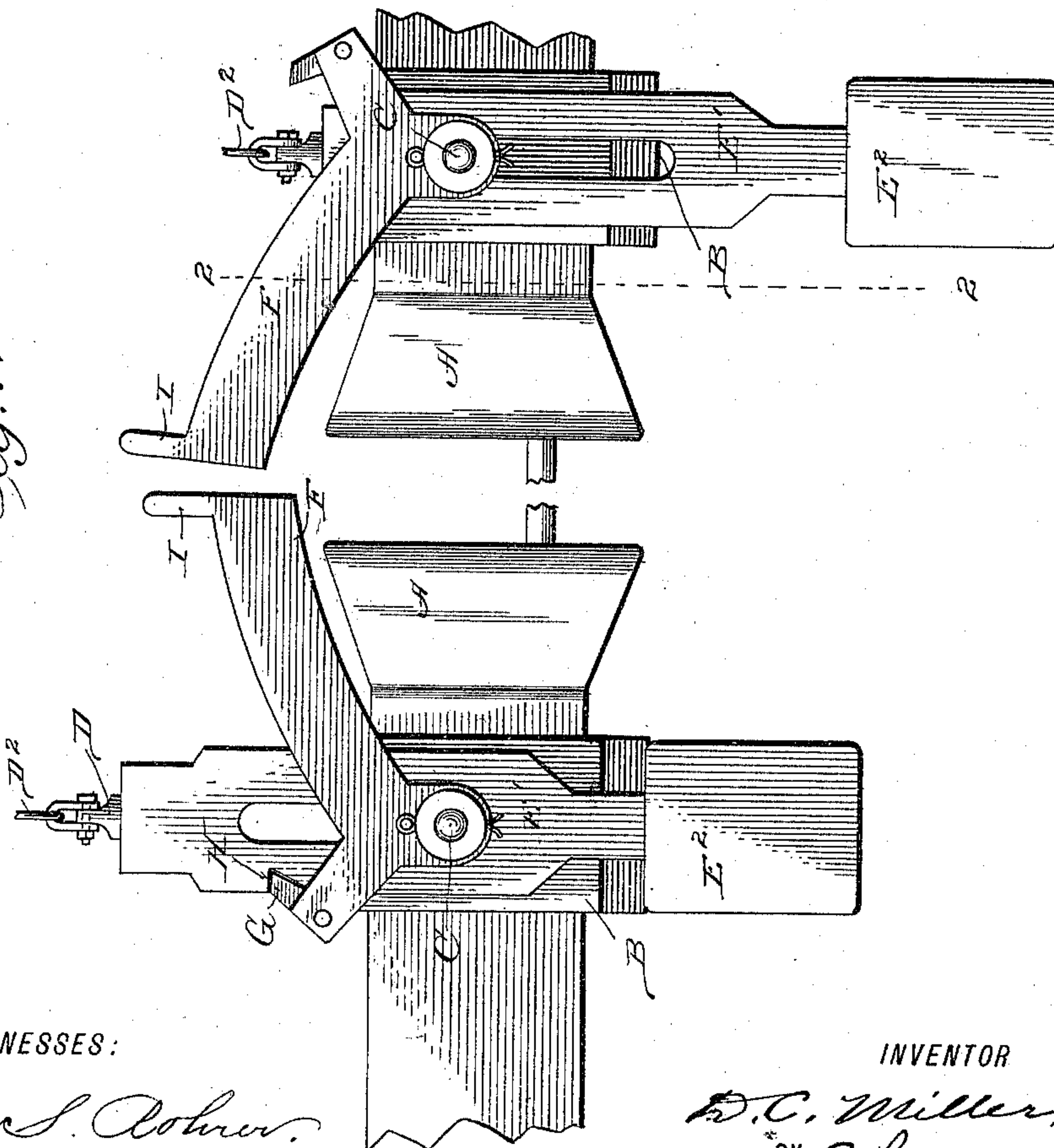
No. 584,695.

Patented June 15, 1897.

*Fig. 2.*



*Fig. 1.*



WITNESSES:

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*William Greene.*

INVENTOR

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BY

*Charles D. Lincoln.*

ATTORNEY.

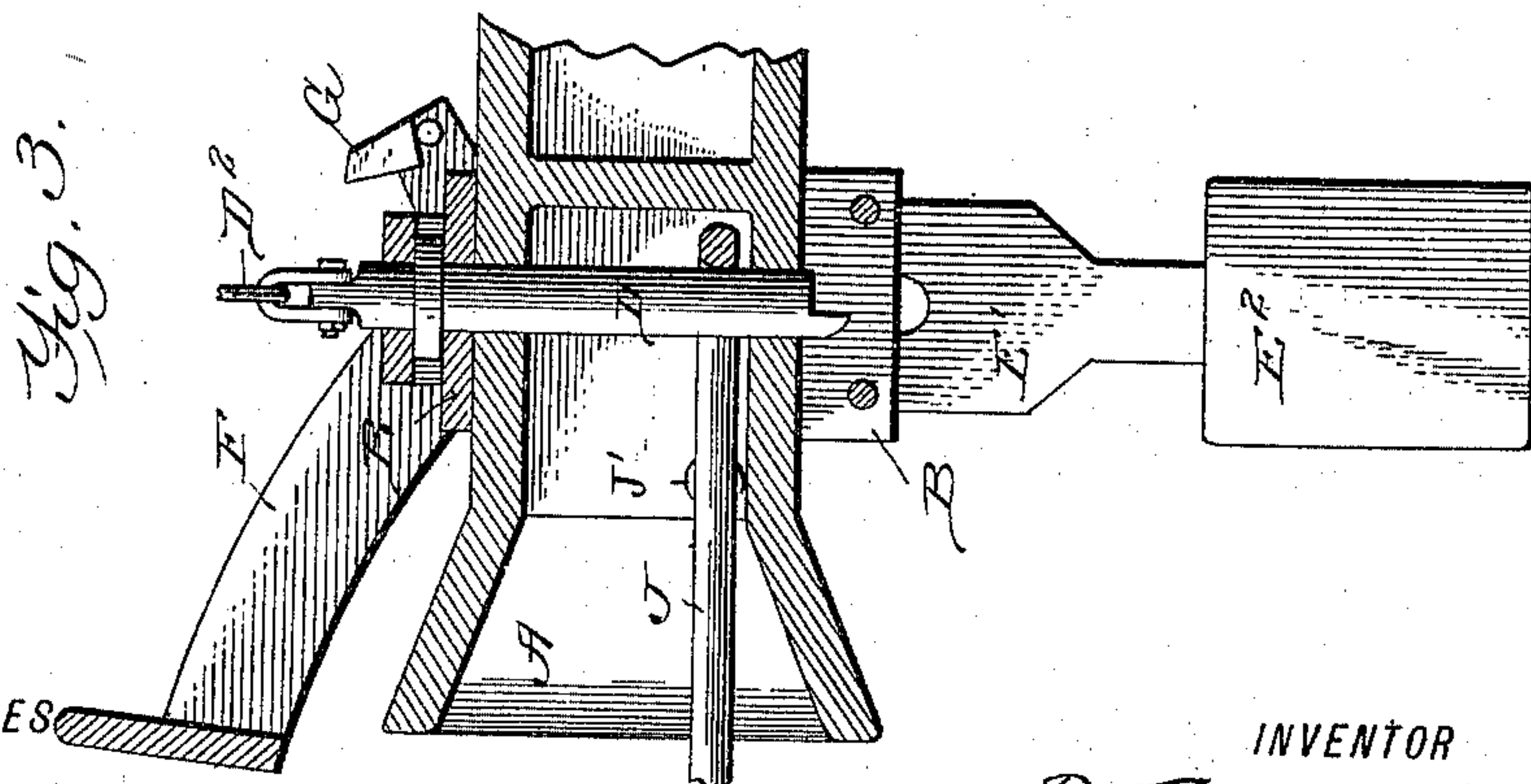
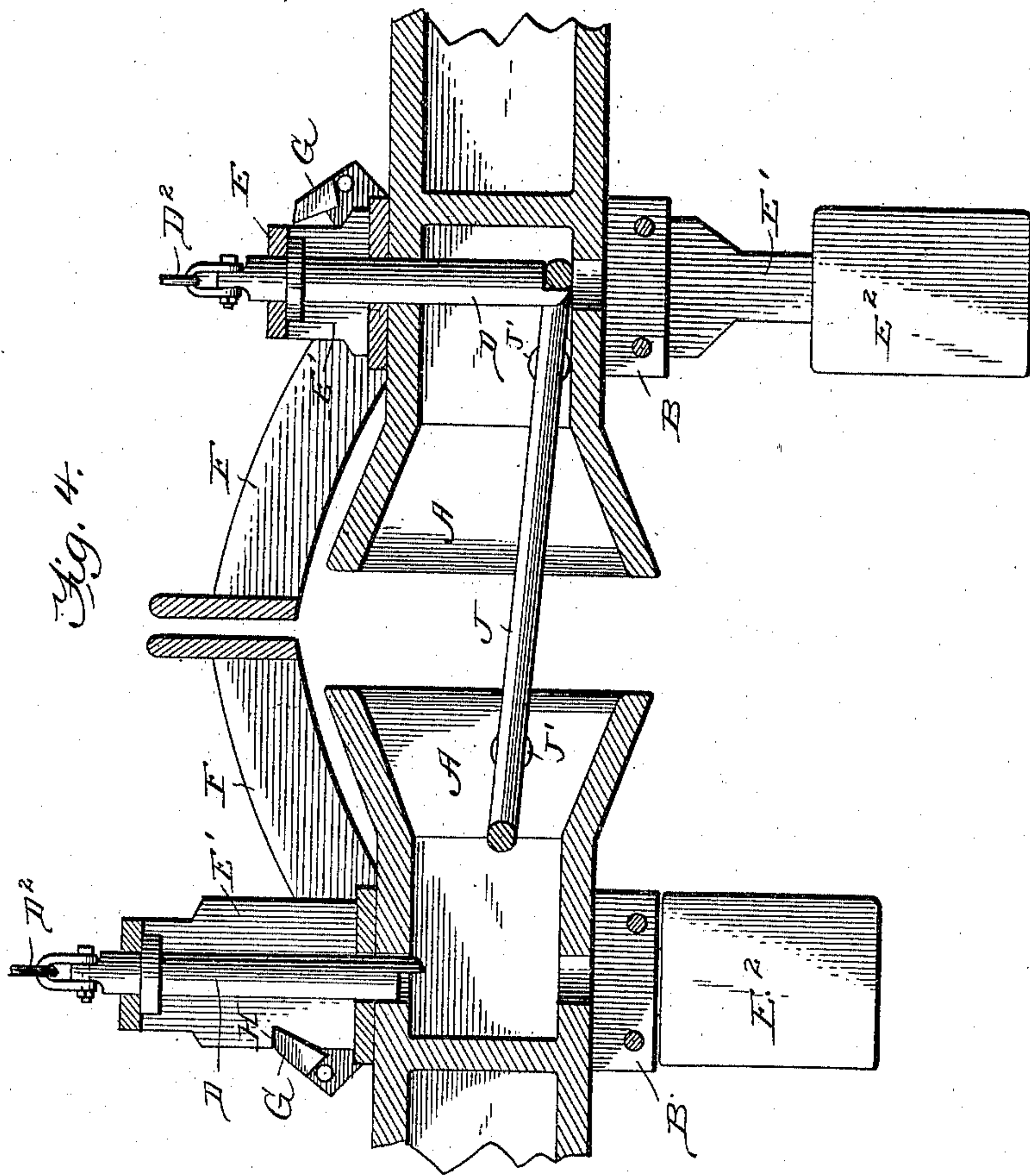
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WITNESSES

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# UNITED STATES PATENT OFFICE.

DEWITT C. MILLER, OF OMAHA, NEBRASKA, ASSIGNOR OF ONE-HALF TO  
JOHN W. LYNN, W. J. HUNTER, AND J. A. WITAKER.

## CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 584,695, dated June 15, 1897.

Application filed October 24, 1896. Serial No. 610,011. (No model.)

*To all whom it may concern:*

Be it known that I, DEWITT C. MILLER, a citizen of the United States, residing at Omaha, in the county of Douglas and State of Nebraska, have invented certain new and useful Improvements in Car-Couplers; and I do hereby 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.

The object of this invention is to provide inexpensive devices for converting the ordinary link-and-pin couplers into automatic couplers that may be set or released from the top or side of the car, or both, all without removing the draw-head from the car or changing it in any way and without making great change in the pin or link, the latter, indeed, in many cases being wholly unchanged.

In the accompanying drawings, Figure 1 is a side elevation of two coacting couplers provided with my devices, the two couplers respectively showing the parts in coupled and in uncoupled positions. Fig. 2 is a section on the line 2 2, Fig. 1. Fig. 3 is a section on the line 3 3, Fig. 1. Fig. 4 is a vertical section through the axial line of the two couplers, one coupler having the coupling-pin fully raised and the other having its pin set to hold the link raised and in coupling position.

In the figures, A A are ordinary draw-heads, and B B are bands clamped around them, respectively, and provided with holes registering with the pin-hole in the draw-head and also provided upon each side with a rigid stud C. In the pin-hole slides a coupling-pin D, provided with a collar D', which normally rests upon the band B, and with a chain D<sup>2</sup> or the like to be connected with devices at the top or side of the car, or both, adapted to draw the chain and thus raise the pin. Such devices form no part of this invention and hence are not shown. A perforated cross-bar E rests upon the collar D' and from its ends depend slotted bars E', which are guided by the studs C and are preferably provided at their lower ends with weights E<sup>2</sup>. Upon each stud C is a centrally-pivoted bent lever F, whose longer and heavier arm projects beyond the free end of the draw-head and whose

shorter rear arm bears a lateral tooth G to engage a notch H in the rear edge of the slotted vertically-sliding bar E'. The front ends of the two levers upon opposite sides of each draw-head are rigidly connected by a plate I somewhat above the horizontal plane of the pivotal studs C. Obviously the weight of the plate and the arms to which it is attached holds the tooth against the side of the bar E' and forces it into the notch therein if the notch be brought into proper position, and just as plainly the tooth is swung rearward away from the bar by rearward pressure upon the plate. The lower end of the coupling-pin is notched upon its rear side, so that it may rest upon the end of the link, as shown in Fig. 4, while still preventing the withdrawal of the latter from the draw-head. The link J is of common form except that it is preferably provided near each end with projections J', which when the pin rests upon the link's rear end serve as fulcrums upon which the link swings upward.

When two cars are to be coupled, the pin of the one bearing the link is raised by traction on the chain, its collar carrying with it the cross-bar E and its attachments, and the normally-inclined link slides outward until its rear end lies in the notch at the end of the pin. The pin is then released, and as the weight presses upon the rear end of the link the latter swings on its fulcrums to the position shown in Fig. 4. The pin of the other coupler is fully raised and is automatically locked in raised position by the tooth G in the manner already suggested. Now as the cars approach each other the link enters the recess in the other draw-head, the plates I meet and by swinging the tooth G rearward release the fully-raised pin, allowing it to drop through the link which has just passed beneath it, and as the entering end of the link strikes the inner wall of the recess the opposite end is forced from the notch in the other pin, allowing this also to fall, when the coupling is complete.

In uncoupling either of the pins may be raised by means of its chain just far enough to release the pin or by fully raising it and allowing it to be locked in raised position. The other pin may or may not be at the time



so raised as to set the link for future coupling.

What I claim is—

1. The combination with a band adapted  
5 to be clamped to an ordinary draw-head, of  
vertically-sliding devices borne by said band  
and adapted to engage the coupling-pin and  
carry it with them in so sliding, means for  
locking said devices in raised position, and  
10 automatic mechanism alongside the draw-  
head and projecting beyond the end of the  
same, to release said devices in meeting like  
mechanism of another coupler.

2. The combination with a band adapted  
15 to be clamped upon an ordinary draw-head  
and provided with a laterally-projecting rigid  
stud upon each side of the draw-head, a cross-  
bar above the draw-head adapted to engage  
and lift the coupling-pin, slotted bars depend-  
20 ing from the ends of the cross-bar and slid-  
ing vertically upon said studs, means for rais-

ing the cross-bar and pin, means for locking  
them in raised position, and means, adapted  
to be operated by an approaching coupler,  
for releasing the raised devices. 25

3. The combination with the band provided  
with the laterally-projecting studs, of the pin  
having the collar resting upon the band, the  
cross-bar resting upon the collar, the chain  
for raising the pin, the laterally-notched slot- 30  
ted bars guided by the studs, the bent levers  
pivoted on the studs and provided at their  
rear ends with teeth engaging the notches in  
the slotted bars, respectively, and the plate  
connecting the opposite ends of the levers at 35  
a point beyond the free end of the draw-head.

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

DEWITT C. MILLER.

Witnesses:

DEXTER L. THOMAS,  
C. Z. GAMEL.