

(No Model.)

H. T. BEAM.
CAR COUPLING.

No. 319,174.

Patented June 2, 1885.

Fig. 1.

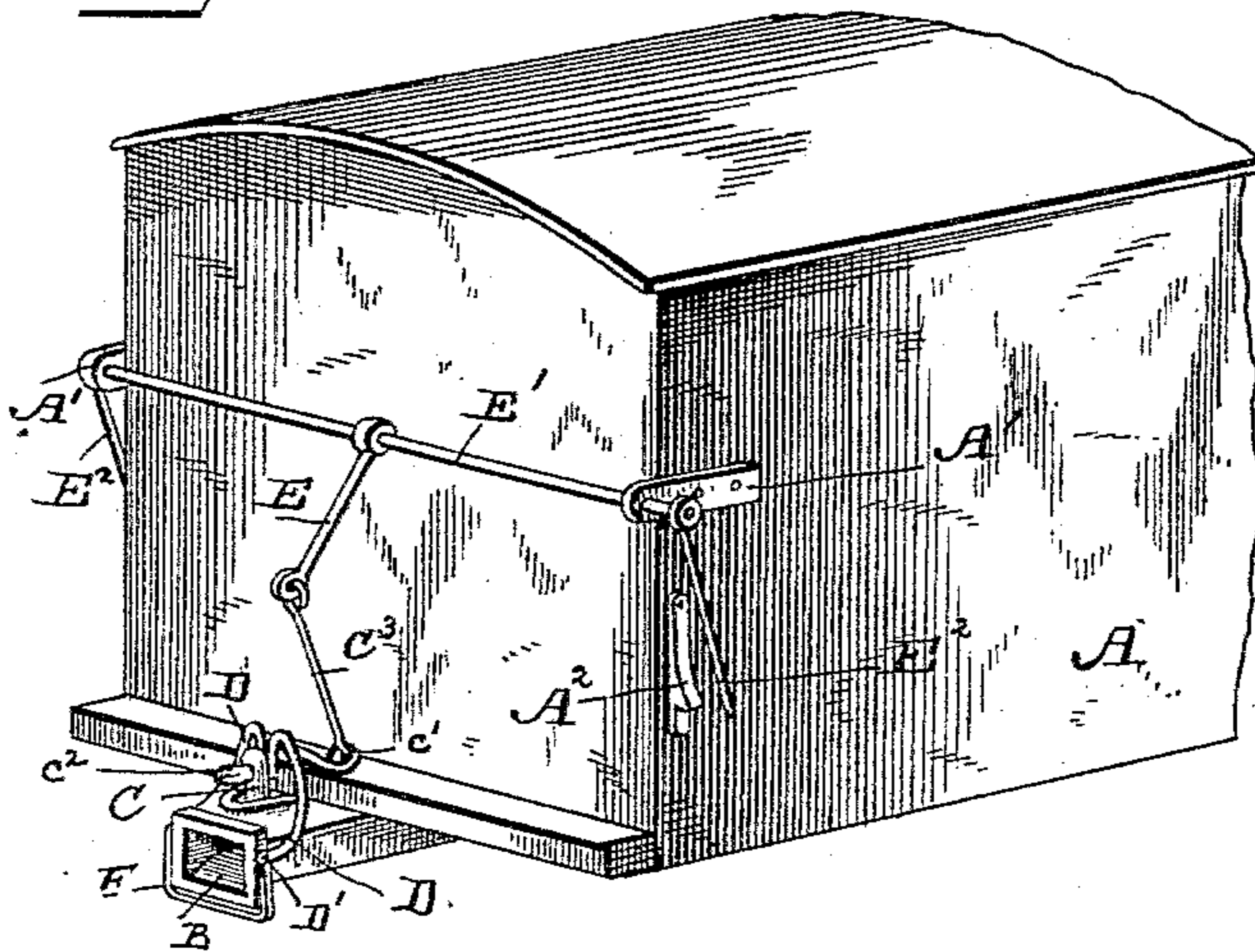


Fig. 2.

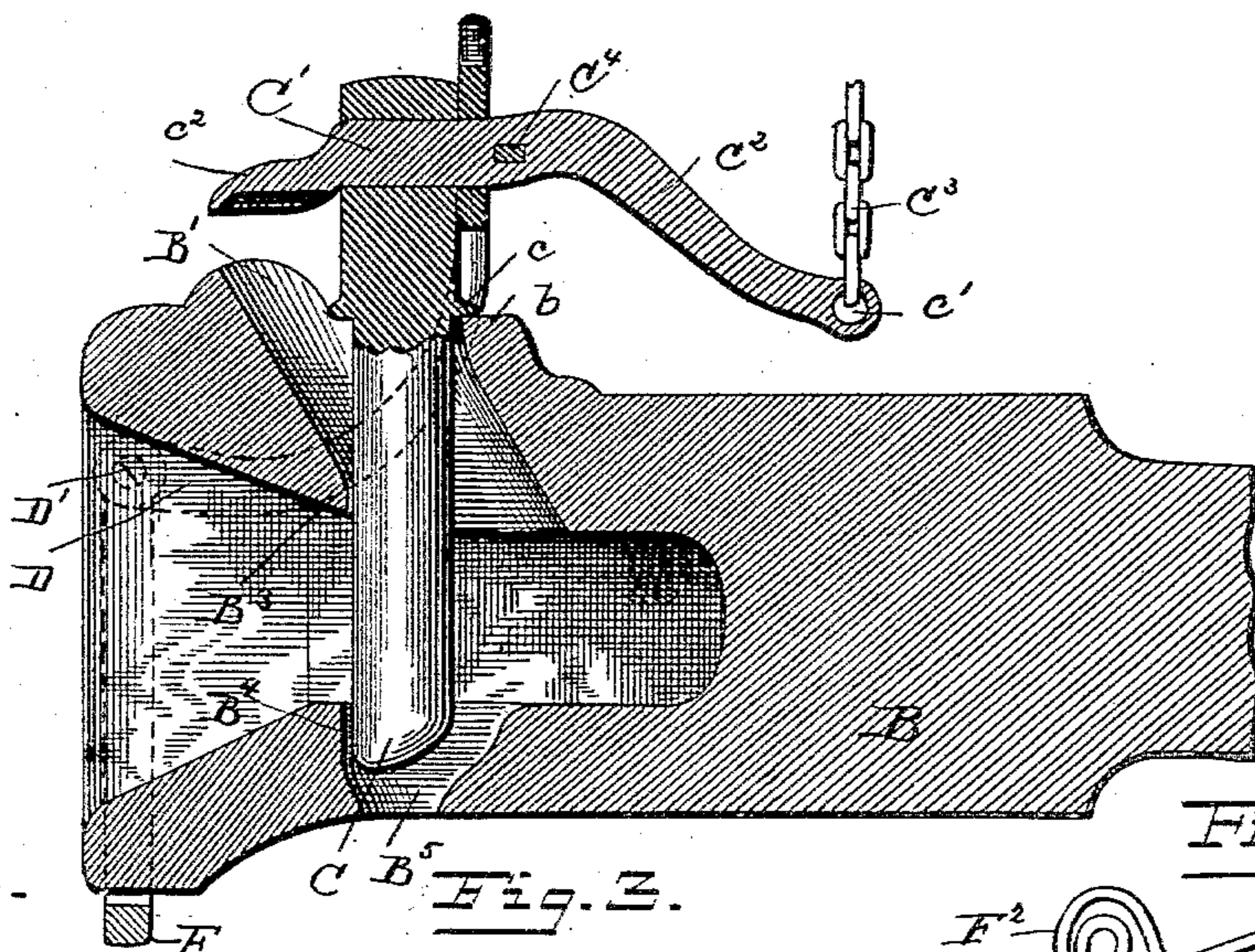


Fig. 4.

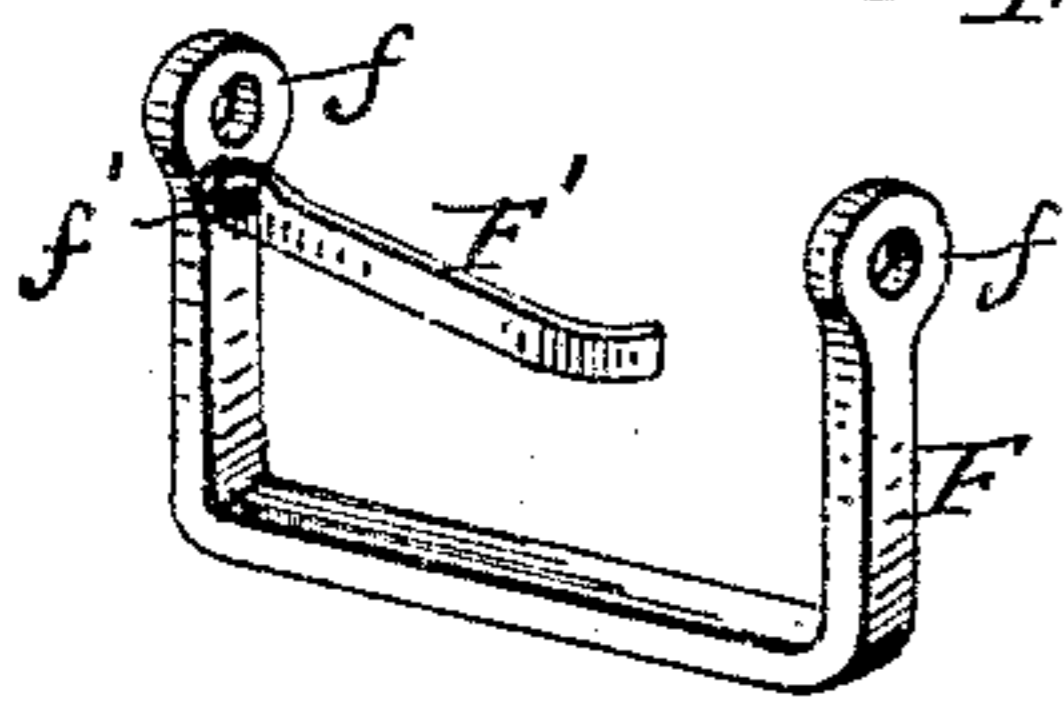


Fig. 2.

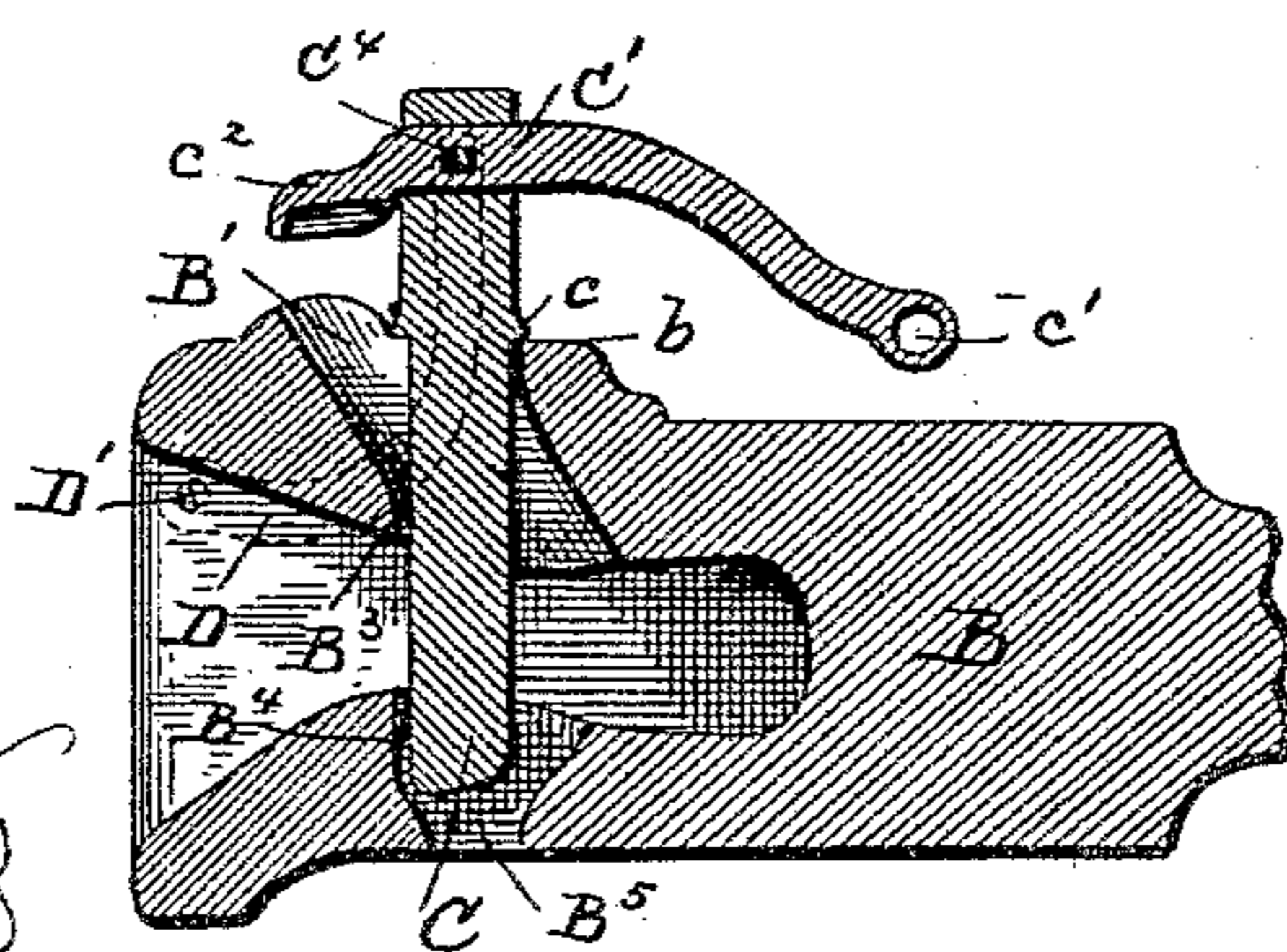
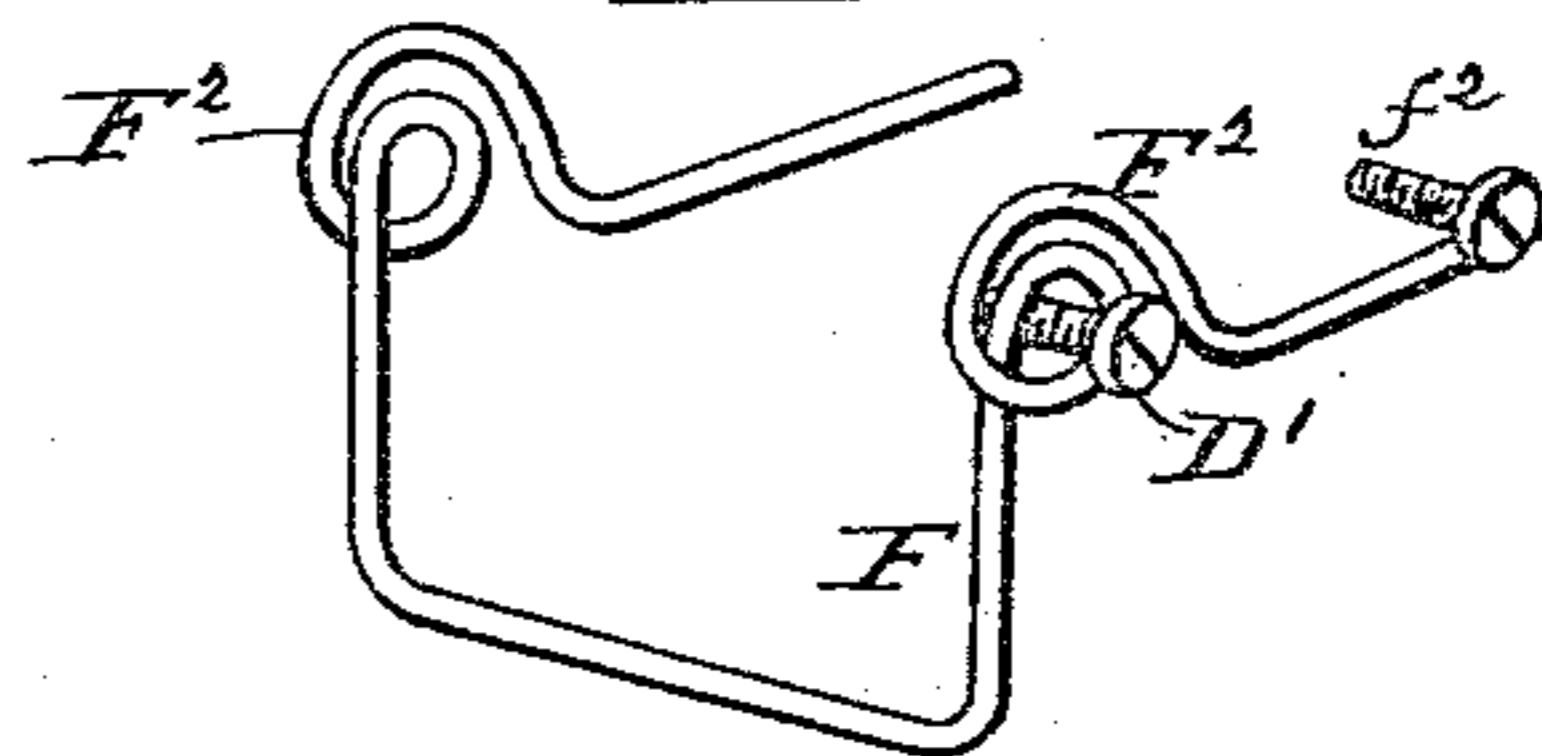


Fig. 5.



Witnesses:
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UNITED STATES PATENT OFFICE.

HENRY T. BEAM, OF PALESTINE, ASSIGNOR OF TWO-THIRDS TO WILLIAM C. JONES AND A. P. WOODWORTH, OF ROBINSON, ILLINOIS.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 319,174, dated June 2, 1885.

Application filed April 24, 1885. (No model.)

To all whom it may concern:

Be it known that I, HENRY T. BEAM, a citizen of the United States, residing at Palestine, in the county of Crawford and State of Illinois, 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.

My invention relates to that class of car-couplers which have a pivoted swinging pin for use with an ordinary link; and the object of my invention is to provide means for lifting and lowering the pin by means of a crank-shaft and lever attached to the sides of the car, as will be hereinafter described, and specifically set forth in the claims.

Figure 1 is a perspective view of a portion of a freight-car with my improved coupler attached. Fig. 2 is a vertical section of the draw-head with its attachments in section; and Fig. 3 is a vertical section of a draw-head, showing a modified arrangement of the operating-lever. Figs. 4 and 5 are views of link-supporting yokes.

Like letters refer to like parts in the figures.

In the drawings, A represents a portion of a freight-car provided with the draw-head B, having a vertical slot, B', in the top thereof, for the reception of the coupling-pin C. This slot is slanting down obliquely toward the rear, and has perpendicular shoulders B³ above and B⁴ below the main opening of the draw-head, to support the thrust upon the pin.

The top of the draw-head is provided with a flat portion, b, on which the collar c on the coupling-pin C rests when the pin is down or when the cars are coupled. The upper end of the pin C is provided with a perforation to receive the forward portion of the arm C'. Said forward end forms a projecting lug or shield, c², which acts as a cover for the slot B' and keeps out snow, rain, &c.

The rear portion, C², of the arm C' extends downward to within a short distance of the top of the draw-head, and is provided with an eye or link, c', to which is attached the chain or link C³, by which it can be elevated.

The pin C is provided with curved side arms, D, by means of which said pin is pivoted to the sides of the draw-head at D', at a point below

the top and opposite the roof of the mouth of said draw-head. The arms are made of a bar of iron bent in the middle of its length and provided at that point with an eye, through which passes the arm C', and is located immediately behind the head of the pin C, and is secured thereto by a key, C⁴, passing through the arm C' in the rear of the eye of the bar.

To elevate the coupling-pin C, there is pivoted to the rear end of the arm C² a chain or link, C³, having its upper end connected to the free end of the crank-arm E. This arm E is mounted upon the crank-shaft E', extending the full width of the car, and said shaft is pivoted in brackets A', attached to the sides of the car, and is operated by the hand-lever E². When it is desired to uncouple the cars, this lever is swung forward and held in that position by a pivoted arm, A², on either side of the car, said arm being provided with a notch or shoulder to receive the lever E². In swinging the lever forward the outer end of the crank-arm E and link C³ are pulled upward, and cause the arms carrying the pin C to swing forward on their pivots D' and elevate the coupling-pin ready for the incoming link, or allowing the link to be removed, as the case may be. In Fig. 3 the coupling-pin is shown as being secured to the side arms, D, by a key, C⁴, passing through the center of the head of the pin C, and also through the arm C'.

While one end of the coupling-link is retained within the cavity of the draw-head the opposite end can be supported at any desired angle by the yoke F. This yoke is made either of a bar bent in the form of the letter U, having eyes f, through which the pivot pins or screws D' are made to pass to retain it connected to the sides of the draw-head, and a flat spring, F', secured to the inner side of the yoke at f', is so bent as to press against the side of the draw-head; or the whole yoke may be made of springy metal, bent as in Fig. 4, or of a wire having coils F², as in Fig. 5. In the latter form the ends of the wire yoke bear against pins or screws f², secured to the cheeks of the draw-head, and retain the yoke at any desired angle, and consequently the coupling-link also at any desired angle to enter the draw-head of another car.

Having now fully described my invention, I claim—

1. In a car-coupler, the pin C, provided with shoulders *c* and a perforation in the upper portion thereof, in combination with the arm C', provided with a projecting shield, *c*², in the forward portion thereof, and a rear arm, C², with the key C⁴, the link C³, and the curved side arms, D, pivoted to the sides of the draw-head at points below the top thereof, substantially as and for the purpose described.

2. The combination of the coupling-pin C, arm C², and side arms, D, with the link C³, crank-arms E, crank-shaft E', levers E², brackets A', and arm A², substantially as and for the purpose described.

3. In combination with a draw-head, a pin, C, having shoulders *c*, and arms C², and key C⁴ with curved levers D, pivoted to the forward side of the draw-head below the top thereof and attached to the coupling-pin, substantially as and for the purpose described.

4. The combination of the draw-head B, the coupling-pin C, arm C², and screws D' with the yoke F, having coils F² around said screws, substantially as and for the purpose described.

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

HENRY T. BEAM.

Witnesses:

THOS. ATEN,

A. McTAGGERT.