

(No Model.)

L. BARNES, Sr., & C. O. BARNES.
DRAW BAR FOR CARS.

No. 453,802.

Patented June 9, 1891.

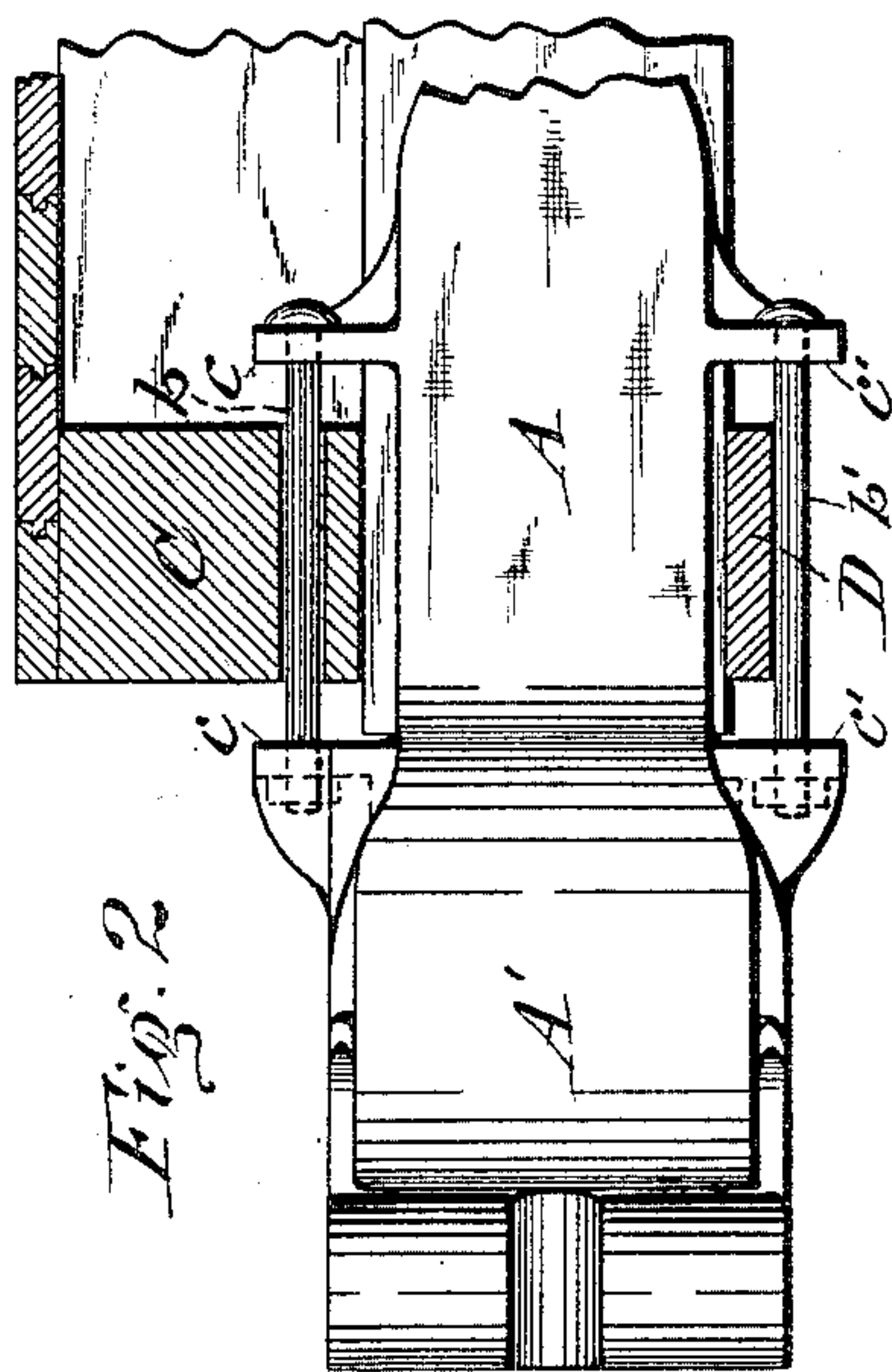


Fig. 2

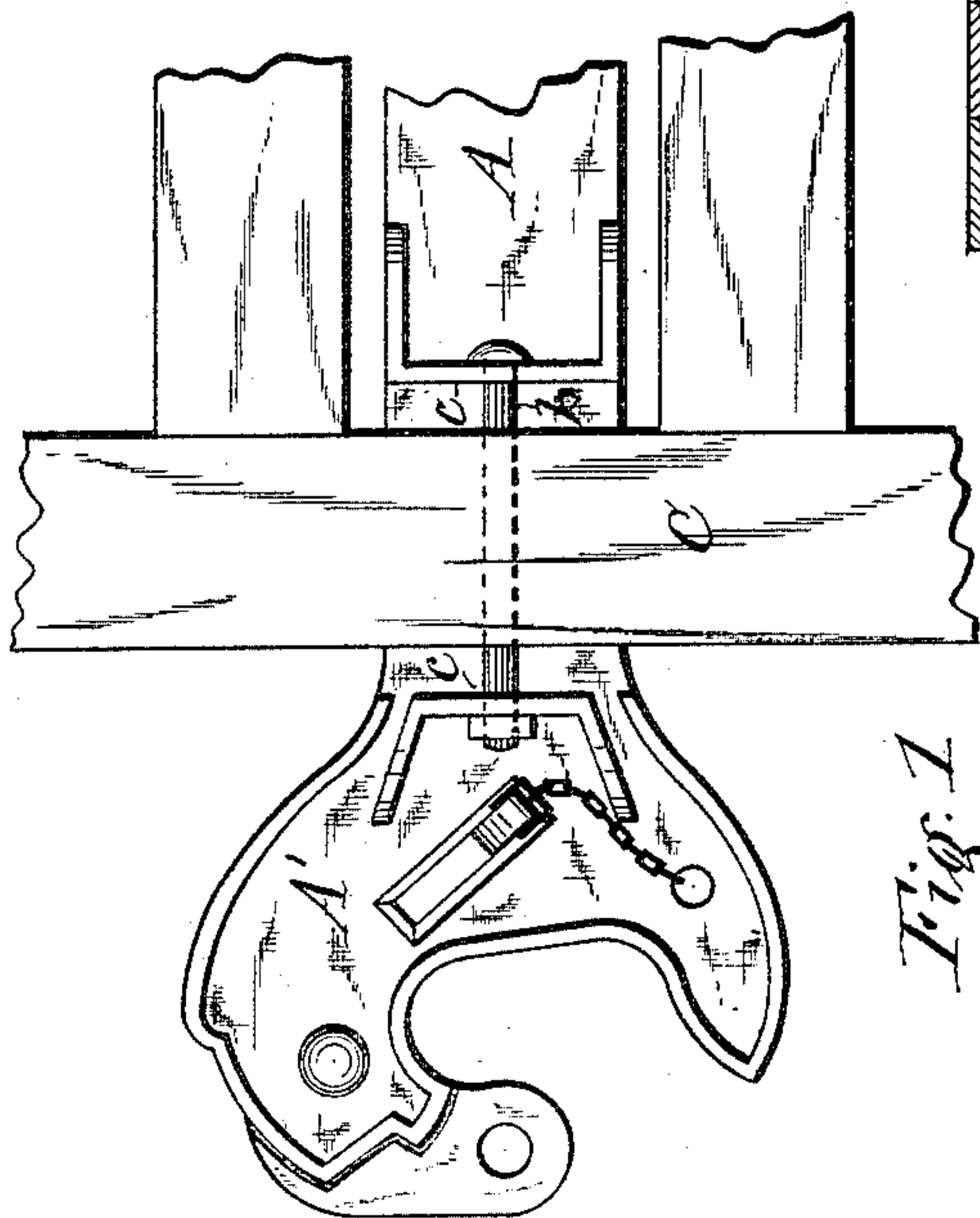


Fig. 1

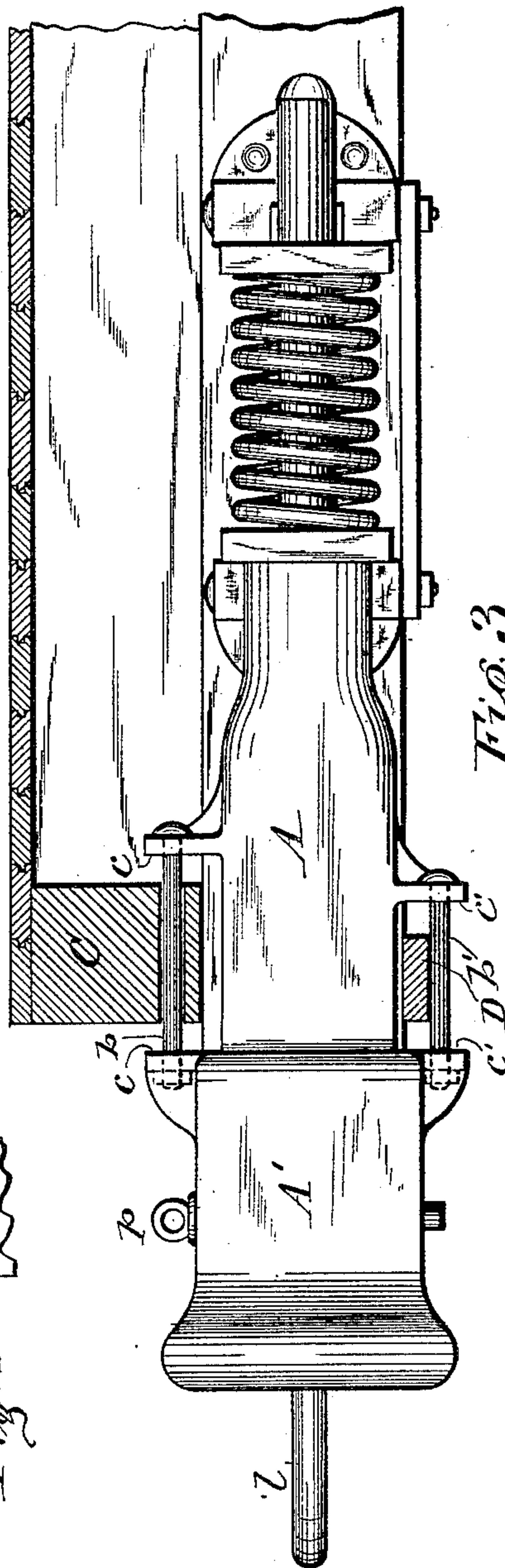


Fig. 3

WITNESSES:

C. L. Bendixon
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INVENTORS:

Lucien Barnes, Jr.
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UNITED STATES PATENT OFFICE.

LUCIEN BARNES, SR., AND CHARLES O. BARNES, OF SYRACUSE, NEW YORK.

DRAW-BAR FOR CARS.

SPECIFICATION forming part of Letters Patent No. 453,802, dated June 9, 1891.

Application filed March 23, 1891. Serial No. 385,978. (No model.)

To all whom it may concern:

Be it known that we, LUCIEN BARNES, Sr., and CHARLES O. BARNES, of Syracuse, in the county of Onondaga, in the State of New York, have invented new and useful Improvements in Draw-Bars of Railroad-Cars, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

Experience in the running of railroad-trains has proven the fact that some of the most serious accidents to trains have resulted from the breaking of the draw-head from the draw-bar and the falling of the disrupted draw-head upon the track while the train was in motion, thereby throwing the train from the track.

The object of this invention is to guard against such accidents; and to that end the invention consists, essentially, of a draw-bar provided with a supplemental safety-tie connected at opposite ends, respectively, to the draw-head and to the rear portion of the draw-bar, as hereinafter more fully described, and set forth in the claims.

In the annexed drawings, Figure 1 is a top plan view of a draw-bar provided with a draw-head of the "twin-jaw" or "Janney" type, provided with our improved safety-tie. Fig. 2 is a side view of the same, and Fig. 3 is a side view of our invention applied to the old style of draw-bar formed with the usual bell-mouthed draw-head for the reception of the coupling-link *l* and coupling-pin *p*.

A represents the draw-bar formed in one piece with the draw-head *A'* in the usual manner, said draw-bar being usually located beneath the cross-beam *C*, on the under side of the car-body, and constituting a part of the frame of said body. A stout iron or steel strap or cross-plate *D*, extending across the under side of the draw-bar and rigidly secured to the frame of the car-body, serves to support the draw-bar. The draw-bar is formed with an upward-projecting abutment *c* on its top, and a proper distance from the outer side of the cross-beam *C* to come in con-

tact therewith when the draw-bar is subjected to excessive inward pressure.

To provide the draw-bar with a safety attachment, which shall connect it to the car independent of the usual tail-bolt attachment, we provide the draw-bar with a second abutment *c* at the rear of the cross-beam *C*, as shown and described in another application for patent, Serial No. 381,126, filed February 12, 1891. It is at or near the junction of the draw-head *A'* with the draw-bar, where the most severe torsional strain is exerted when the car is coupled to a train and in motion, and therefore when a disruption of the draw-head occurs it usually is at a point between the two shoulders *c c*.

To prevent the disrupted draw-head from falling upon the track, we connect the two shoulders *c c* together by means of a suitable tie *b*, which may consist of a stout bolt passing through the said shoulders and provided with a head and nut, respectively, at opposite ends, as shown; or a chain may be used between shoulders. If desired, two or more such ties may be connected to said shoulders; or a chain or chains used. In order to render the connection of the draw-head to the draw-bar still more secure, we form the under side of the draw-bar with another similar set of shoulders *c' c'*, in front and rear of the cross-plate *D*, and connect said shoulders by a tie or ties *b'*. By employing both the top and bottom sets of shoulders and ties *c c b* and *c' c' b'*, the disrupted draw-head is retained in position to enable it to draw the car by means of the ties *b b'*.

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

1. A draw-bar provided with a supplemental safety-tie connected at opposite ends, respectively, to the draw-head and to the rear portion of the draw-bar, substantially as and for the purpose set forth.

2. The combination, with the car-body, of an abutment on said body, the draw-bar provided with shoulders in front and rear of said

abutment, and a supplemental safety-tie connecting the two shoulders to each other, as set forth.

3. In combination with the car-body provided with the cross-beam C and cross-plate D, the draw-bar formed with the shoulders *c* and *c' c'*, and the bolts *b b'*, connecting each set of shoulders together, substantially as described and shown.

In testimony whereof we have hereunto signed our names this 17th day of March, 1891.

LUCIEN BARNES, SR. [L. S.]
CHARLES O. BARNES. [L. S.]

Witnesses:

C. L. BENDIXON,
MARK W. DEWEY.