

(No Model.)

E. A. GALLUP.  
CAR COUPLING.

No. 438,372.

Patented Oct. 14, 1890.

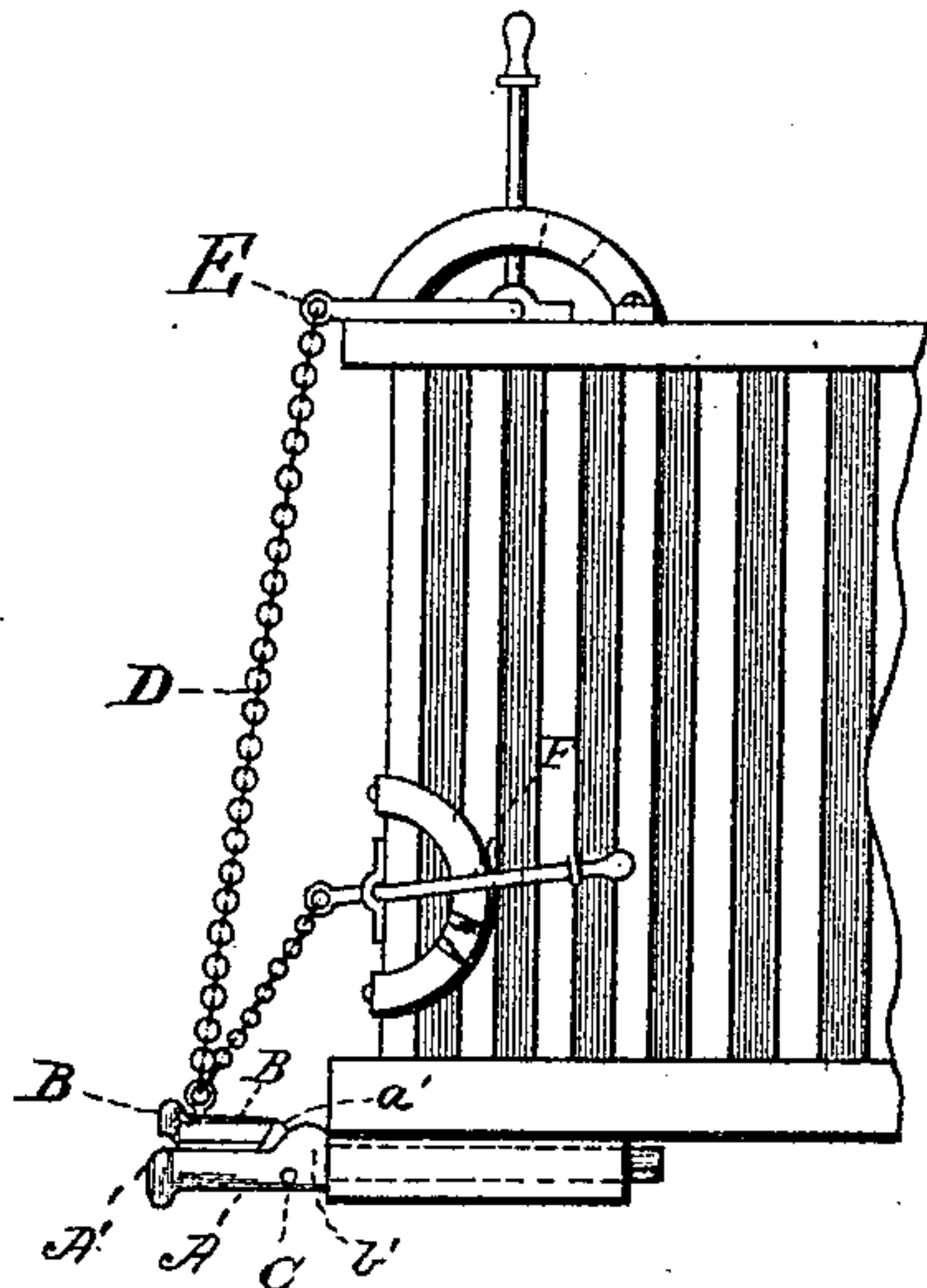


Fig. 1.

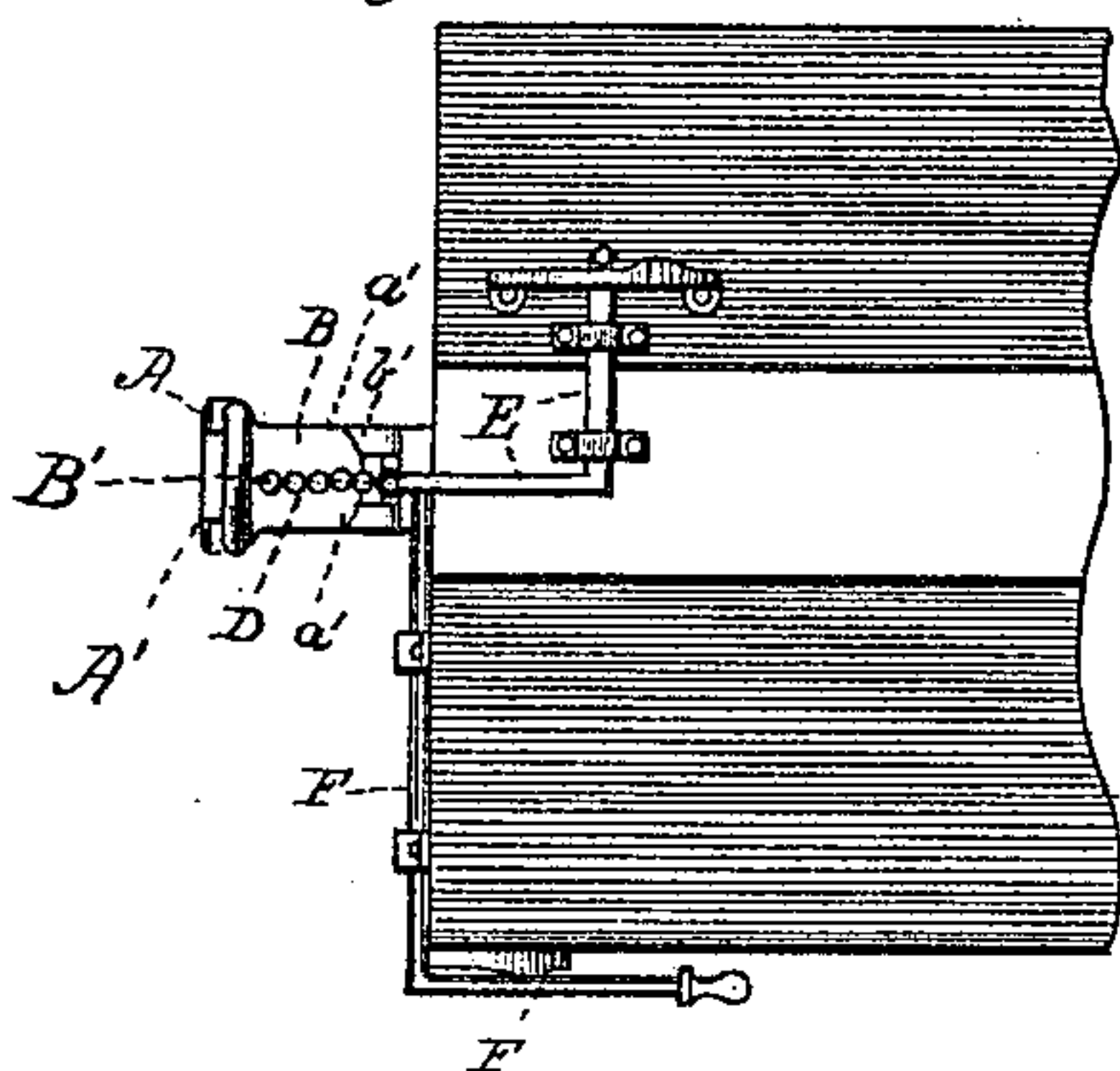


Fig. 2.

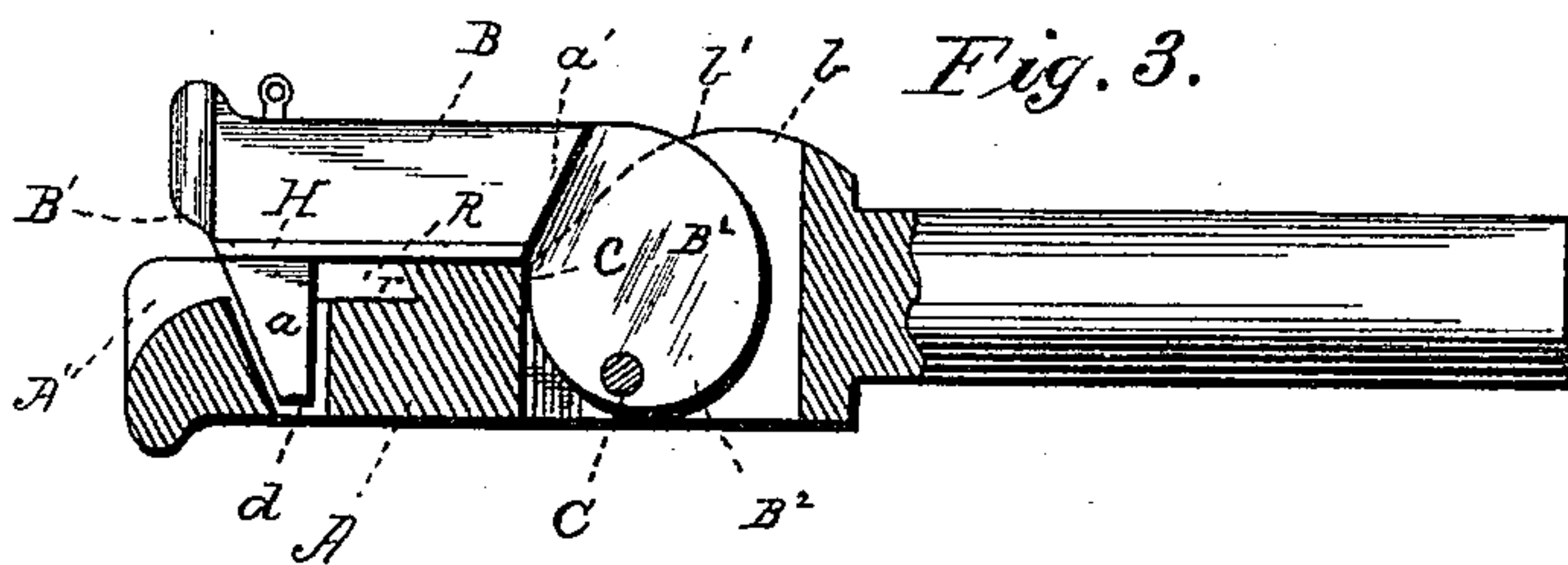


Fig. 3.

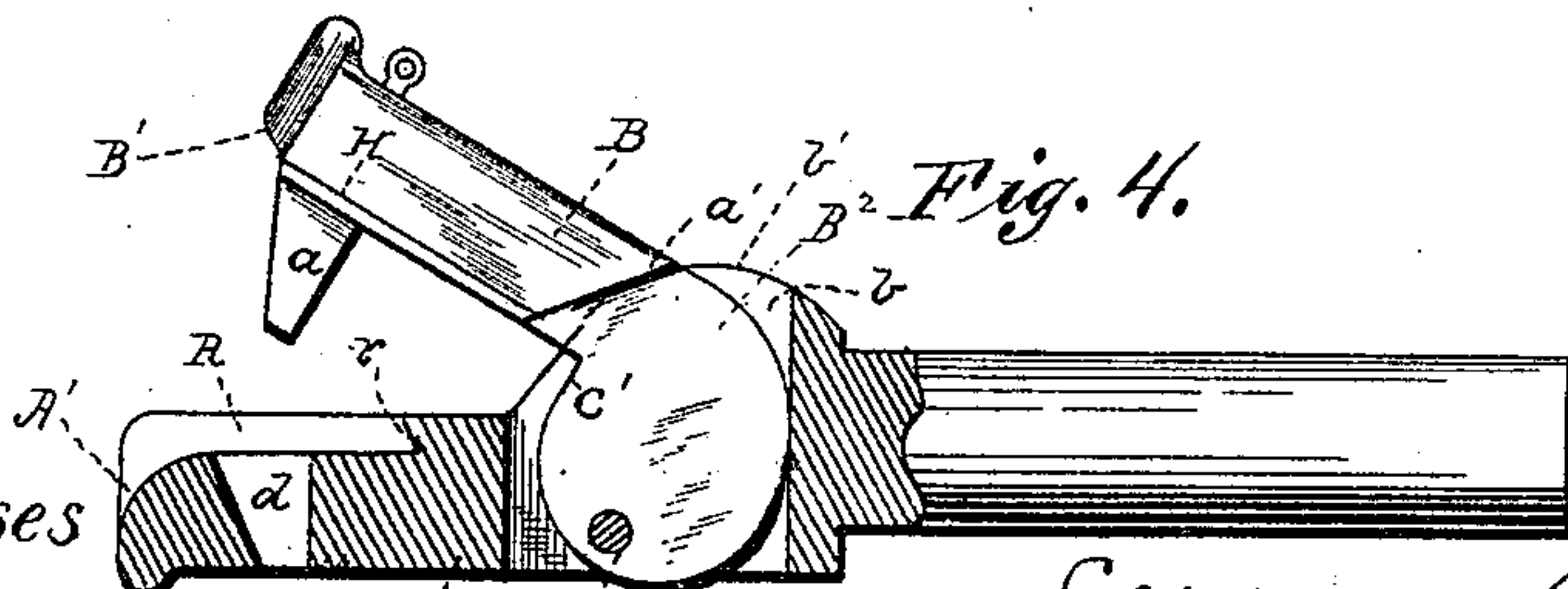


Fig. 4.

Witnesses

M. B. Harris

Wm. F. Brereton

Inventor

Elijah A. Gallup

By

D. W. Tallmadge, Attorney



# UNITED STATES PATENT OFFICE.

ELIJAH A. GALLUP, OF DEADWOOD, SOUTH DAKOTA.

## CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 438,372, dated October 14, 1890.

Application filed March 1, 1890. Serial No. 342,304. (No model.)

*To all whom it may concern:*

Be it known that I, ELIJAH A. GALLUP, a citizen of the United States, residing at Deadwood, in the county of Lawrence and State of South Dakota, have invented a new and useful Improvement in Car-Couplings, of which the following is a specification.

My invention relates to a car-coupling; and it consists in certain novel details in construction and operation of the several parts, as will be hereinafter more specifically described, and pointed out in the claims.

The object of this invention is to provide a car-coupling that will be simple in construction, automatic in action, durable, and adapted for use upon cars as now constructed in connection with the usual link, this coupling being of the pivoted-jaw and link pattern.

Referring to the accompanying drawings, forming a part hereof, for a better understanding of the details of construction of my invention, Figure 1 is a view in side elevation, and Fig. 2 a plan view, of a car-coupling constructed according to my invention, the parts being shown as in their coupled position. Figs. 3 and 4 are longitudinal sectional elevations of the coupling in its coupled and uncoupled positions, respectively.

This invention combines a coupling and draw-head for cars; and it consists of a stationary member A, that forms the lower portion of the draw-head, the front end of which is made flaring to form the mouth A', and its rear end is secured to the car in the usual or in any desired manner, and a jaw B, pivoted at one end to the member A and with a flaring end B', that forms the upper part of the mouth of the draw-head. These parts A and B constitute the draw-head, each of which parts is of about equal height or thickness vertically, as well as the same width, and at the front end of the jaw B is a tapered projection or tooth a, that receives the coupling-link to effect the coupling of the cars, while its rear end is curved as at B<sup>2</sup> and enters a slot b vertically through the part A.

C is the pivot-pin, that passes transversely through the part A and through the curved end B<sup>2</sup> of the jaw B, whereby said parts are secured together, and a free vertical movement is permitted to the jaw B.

As will be observed, the draw-heads are slightly longer than they are usually made, so as to secure the desired weight for the jaw B, to prevent its accidental displacement and uncoupling of the cars while in use. At the rear end of each side of the jaw B is formed an incline shoulder, as at a', that fits upon a similar shoulder formed upon the top rear extremity of the member A, as at b', when the jaw is at the limit of its open position, as in Fig. 3. The too far vertical movement of the jaw or its passing beyond the vertical line of gravity is therefore prevented, so that the jaw will always return to its normal position.

As before stated, the jaw is of about half the vertical thickness of the body of the draw-head, so that great weight is thereby secured for such part and while its front end is made flaring and forms the upper portion of the mouth of the draw-head, yet the front edge of this jaw B does not extend flush with the front edge of the main part A. The impact of the draw-heads of the cars will therefore be upon the body member A, and injury to the jaw B thereby obviated.

The pivot-pin C is, as shown in Fig. 1, situated below the line of draft, so that the strain of draft upon said pivot-pin is reduced to a minimum, and in addition to this a shoulder or bearing-surface is provided at the front of the curved portion B' of the jaw B, as at c, so that when the jaw is down it bears upon the front edge of the slot b, in the body A, as shown in Fig. 3. The tapered projection a or tooth of the jaw B is also made of such width at its top portion relatively to the length of the slot d in the body member A, to receive the same that the front edge of this tooth a will come flush against the front edge of the said slot, as shown in Fig. 3. There will therefore be three bearing points in the coupling to receive the strain of draft.

Within the front end of the body member A is formed a recess, as at R, that terminates in an inclined shoulder, as at r, whereby the entrance of the link within the coupling is limited.

The weight of the jaw B, in addition to the fact that the pivot-pin thereof is below the center of draft, so that the entire weight of the jaw is brought forward of the pivot-pin, will in-



sure its always seating itself. To raise such jaw from the top of the car, a chain is secured to the top front end thereof, as at D, which chain is connected to a hand-lever arranged  
 5 upon the top of the car, as at E, and is also connected to a lever F at one side of the car, so that the uncoupling of the cars may be effected either from the top or side of the car and without going between the same, and to  
 10 exclude snow and rain from entering beneath the jaw a flange, as at H, is provided along its lower edge.

Having thus fully described my invention, I claim as new therein and desire to secure by  
 15 Letters Patent of the United States—

1. In a car-coupling of the nature described, in combination, the rigid body member A, having flaring front end forming one-half the draw-head, recess R, with incline shoulder *r*,  
 20 vertical slots *b* and *d*, and shoulders *b' b'*, and pivoted jaw B, of equal width with the body A and having flaring front end that forms the upper portion of the draw-head, curved rear end B<sup>2</sup> with shoulders *a'*, *a'*, and *c*, and tapered  
 25 tooth *a*, whose top front end bears against the slot *d* in the body A, as shown and described, for the purpose specified.

2. In combination with the body A, having the flaring front end, vertical slots *b* and *d*,

shoulders *b' b'*, and recess R, terminating in  
 shoulder *r*, the jaw B, having flaring front end that terminates near the front edge of the body A and of equal width with said body A, to which it is pivotally secured at a point below a central horizontal line through the  
 35 draw-head and with curved end B<sup>2</sup>, shoulders *a' a'*, and tapered projection or tooth *a*, as described and shown, for the purposes specified.

3. The combination of the coupling herein described, consisting of the body member A, having flaring mouth and vertical slots *b* and *d* and shoulders *b' b'*, and pivoted jaw B, of equal width with the body A and with  
 45 flaring mouth that terminates near the front edge of the body A, and shoulders *a' a'* and tooth *a*, the means described for operating the jaw from the top of the car and sides thereof being chain D and levers E and F, as  
 50 specified.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

ELIJAH A. GALLUP.

Witnesses:

WM. H. BRERETON,  
 HARVEY S. W. DE GAW.