

(No Model.)

D. ALTMAN.  
CAR COUPLING.

No. 450,904.

Patented Apr. 21, 1891.

Fig. 1.

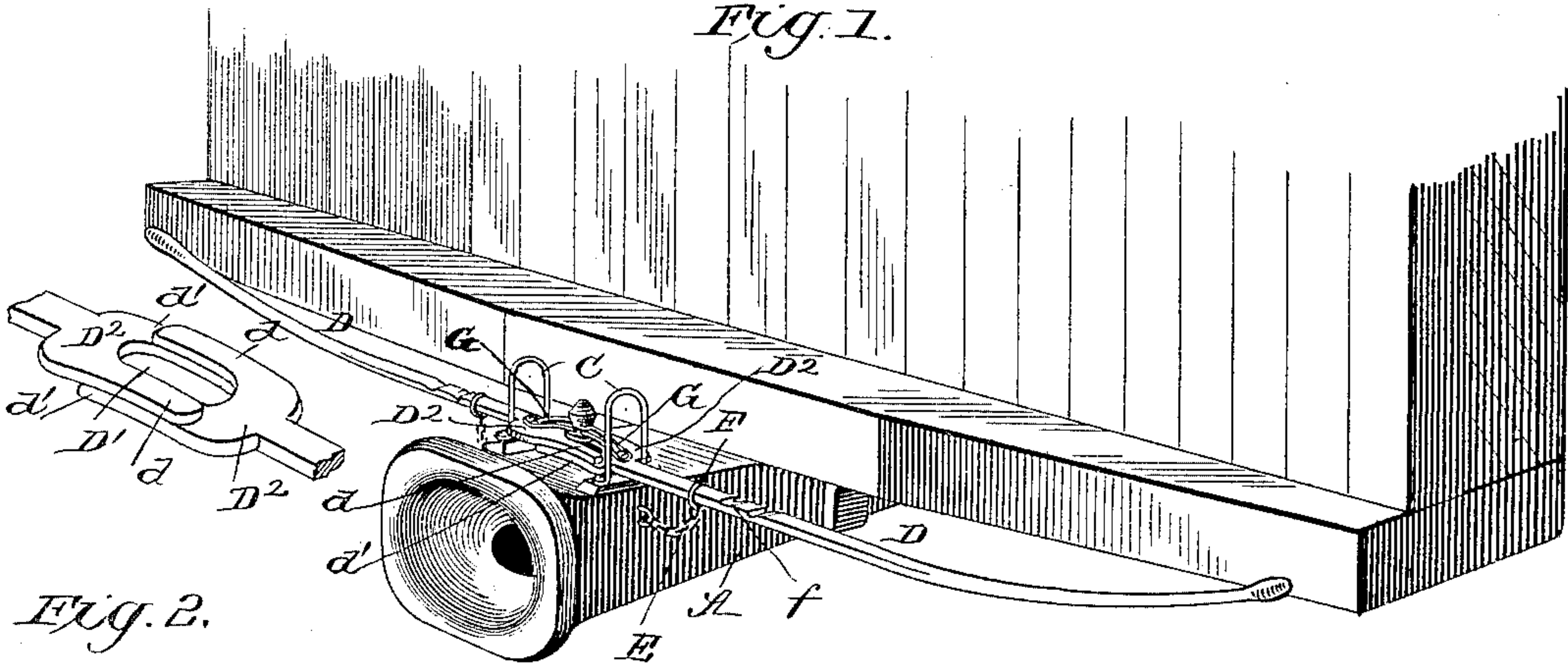


Fig. 2.

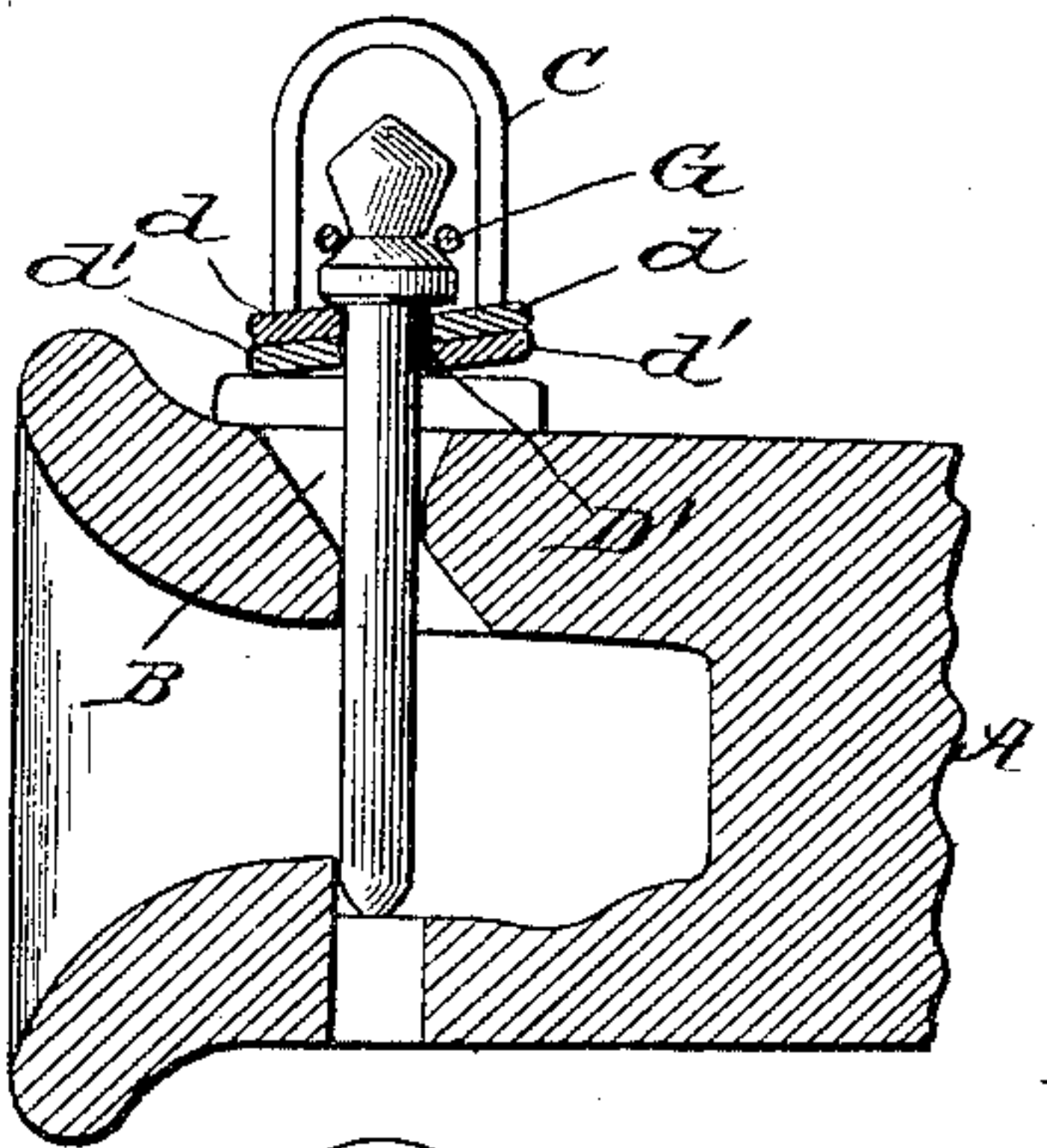


Fig. 3.

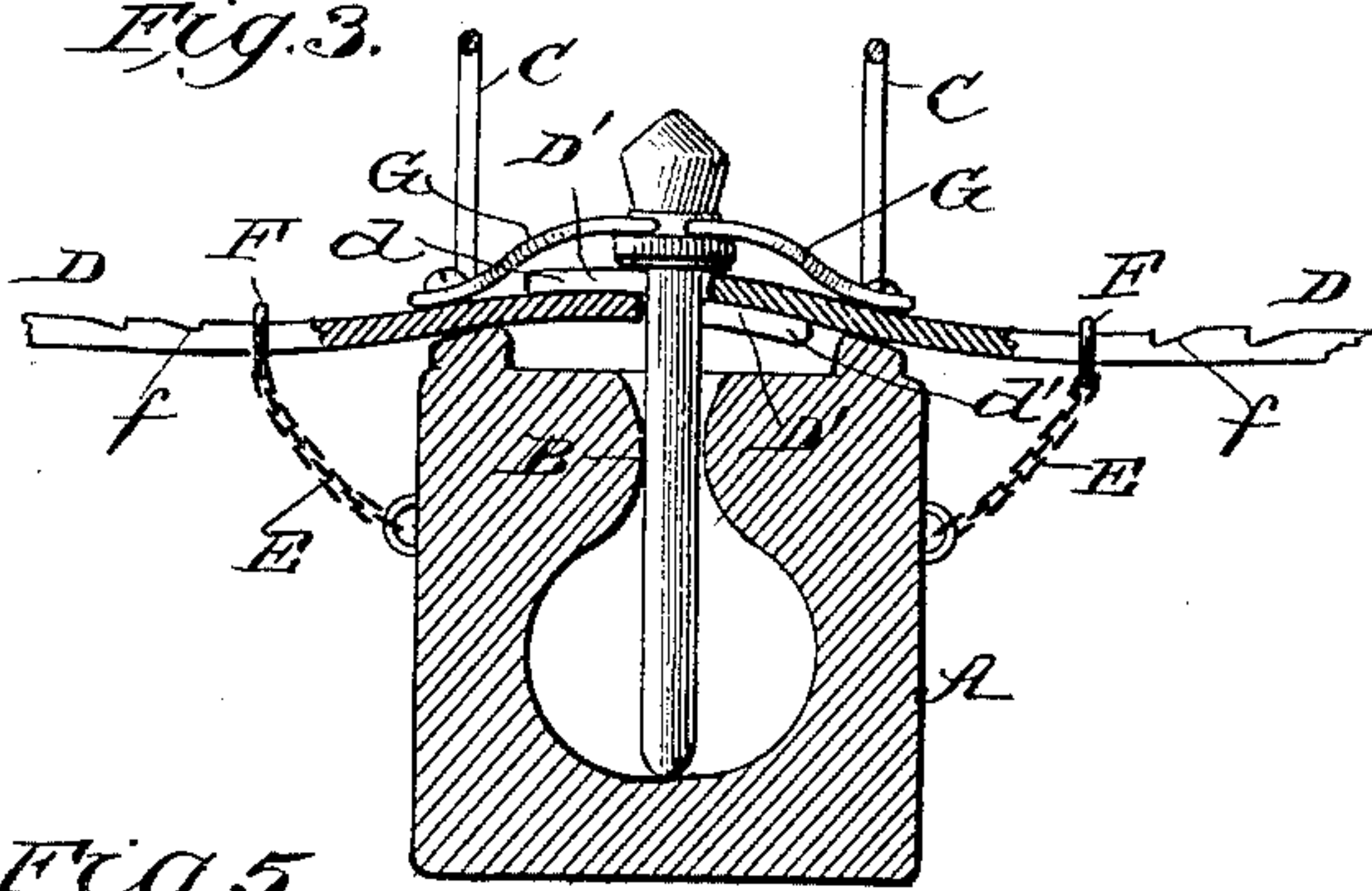


Fig. 5.

Fig. 4.

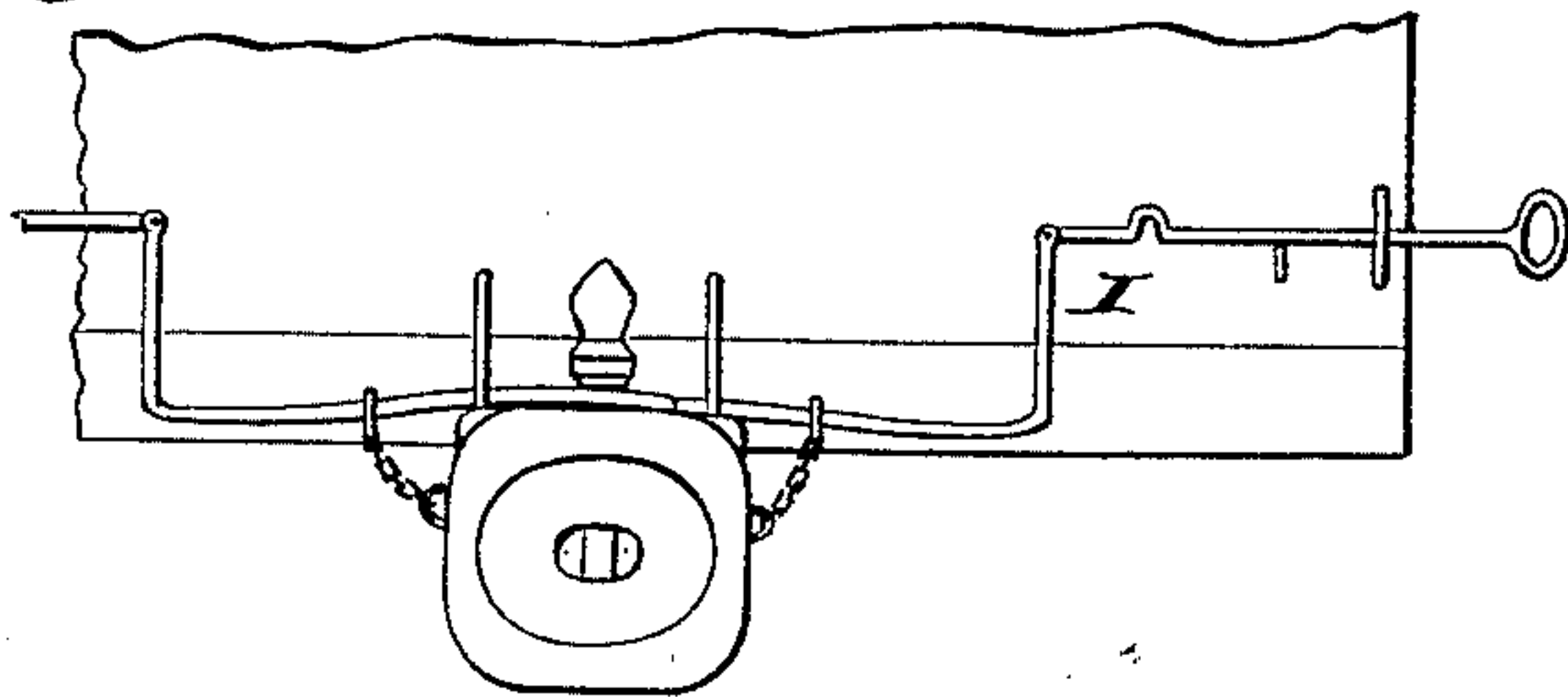
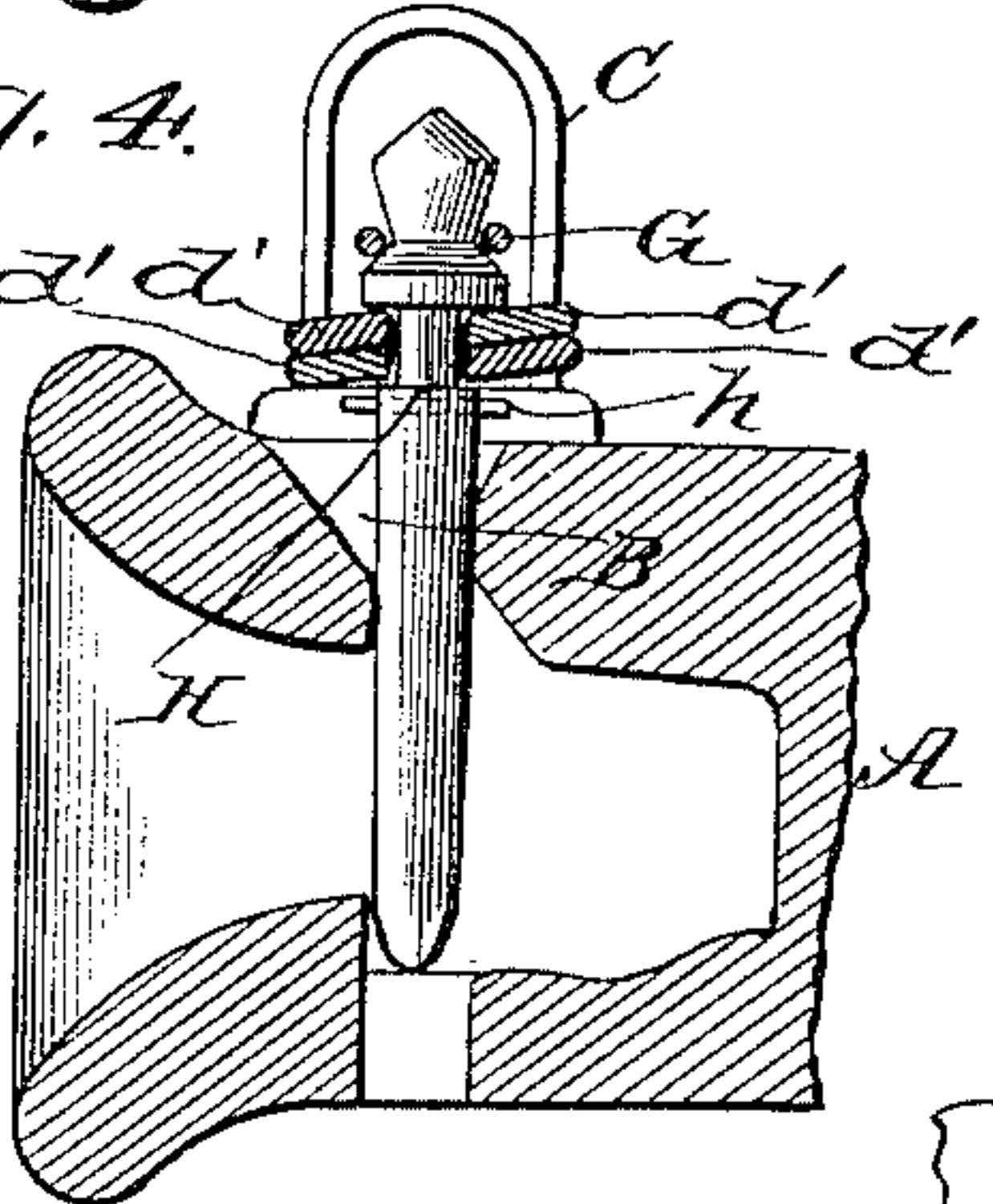


Fig. 6.

WITNESSES:

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# UNITED STATES PATENT OFFICE.

DAVID ALTMAN, OF MACON, GEORGIA.

## CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 450,904, dated April 21, 1891.

Application filed September 8, 1890. Serial No. 364,359. (No model.)

*To all whom it may concern:*

Be it known that I, DAVID ALTMAN, of Macon, in the county of Bibb, State of Georgia, have invented a new and useful Improvement in Car-Couplings, of which the following is a specification.

My invention is an improvement in car-couplings; and it consists in certain novel constructions and combination of parts, as will be hereinafter described, and pointed out in the claims.

In the drawings, Figure 1 is a perspective view of a car-coupling embodying my invention. Fig. 2 is a vertical longitudinal section of the coupling. Fig. 3 is a cross-section of the coupling. Fig. 4 shows a modification of the means for preventing the pin from jolting upward, and Figs. 5 and 6 show intermediate devices between the lever and the side of the car.

The draw-head A may be secured to the car-frame in any suitable manner, and has its front end formed square to provide a proper abutment for the meeting draw-head, and such end is mortised to receive the link, the mouth of such mortise being rounded or concaved on all sides to properly guide the link into the draw-head. This draw-head is adapted by such flaring of the mouth to receive the ordinary link, whether such link be straight or bent in the ordinary manner, and to couple with higher or lower cars. The draw-head is secured to the car-frame and is provided with the pin-opening B, formed through its top and adapted to permit the pin to swing back enabling the automatic coupling of the cars, as will be readily understood, it will be seen that no matter whether the pin hangs vertically or slightly to one side, the entering link will push the coupling-pin back and effect the automatic coupling, as desired. The draw-head may have its top flat, as shown, or suitably rounded and is provided near its side edges on opposite sides of the pin-opening with guide-frames C, which may be formed integral with the draw-head or be made separately and suitably secured to the said draw-head, as desired. These frames serve to retain the levers D, presently described, the said levers fulcruming at the base of said frames, as shown. These levers are constructed at their inner ends to interlock, so that the depres-

sion of the outer end of either of the said levers will effect the elevation of the inner end of both, such levers being suitably engaged with the pin to lift such pin to uncoupled position when the levers are properly operated.

In the construction shown the levers are bifurcated at their inner ends, providing the slots D', which receive the pin and the arms or portions *d d'*, the portions *d* of each lever being arranged to lap upon the portion *d'* of the other lever, so that when either lever is depressed at its outer end its portion *d'* at its inner end will serve to lift the inner end of the other lever, so that the pin can be readily adjusted to uncoupled position from either side. It will be noticed that the levers widen out at D<sup>2</sup> just inside the guide and retaining frame C, so that the levers are held by the shoulders or widened parts D<sup>2</sup> from moving outward through the frame C and thus becoming displaced. These levers may be upturned at their outer ends, as shown, to render the operation of uncoupling easier. To hold the pin in uncoupled position I provide chains E, secured to the draw-head and provided with rings F, movable along the levers and into and out of notches *f*. When either of the rings is in its notch *f*, it will secure its lever in such position as to hold the pin elevated or uncoupled.

To prevent the pin from jolting or jarring upward, I provide each lever with a clip or clamp G, secured at one end to the lever and arranged at its opposite end to bear upon the coupling-pin and hold it from upward movement independent of the levers. In the construction as shown the clip or clamp is bifurcated, forming arms which bear on opposite sides of the pin. These clips or clamps serve as stops to prevent the independent upward movement of the pin and are preferred; but it will be understood that such stop construction might be effected by the construction shown in Fig. 4 by providing the coupling-pin below the levers with a pin *h* or shoulder H, or both.

While the levers may be operated directly, it may be preferred to employ in connection with them pull or push rods I or J, as shown in Figs. 5 and 6, in which case the outer ends of the levers have downwardly or upwardly projected arms, which are connected with



longitudinally-sliding arms, which latter extend to the sides of the car and have catch portions K to hold the levers in uncoupled positions.

5 It will be understood that the coupling herein described is an improvement upon my former car-coupling covered by me in application for patent filed May 31, 1890, Serial No. 356,898, patented September 2, 1890, No. 10 435,787.

The construction as described is simple, convenient, easy of operation, and enables the cars to be coupled and uncoupled without requiring the operator to go between the cars.

15 Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In a car-coupling, the combination, with the draw-head, of the coupling-pin and the 20 pin-operating levers arranged to interlock at their inner ends, substantially as set forth.

2. The improved car-coupling herein described, comprising the draw-head, the coupling-pin, the pin-operating levers having their 25 inner ends bifurcated, forming arms  $d d'$ , the arms  $d$  of each lever being arranged to lap upon the arm  $d'$  of the other lever, all substantially as set forth.

3. In a car-coupling, the combination of the 30 draw-head, the coupling-pin, the frame C, and the levers D, passed through said frames and engaged at their inner ends with the pin, the said levers being provided with shoulders  $D^2$ , whereby they are prevented from movement 35 outwardly through frame C, substantially as set forth.

4. In a car-coupling, the combination, with the draw-head, of the coupling-pin, the frame C, the levers D, having slots  $D'$ , arms  $d d'$ , and shoulders  $D^2$ , all arranged and adapted for 40 use substantially as set forth.

5. In the herein-described car-coupling, the combination, with the draw-head, of the coupling-pin, the pin-operating levers, and the chains E, having rings F, arranged to slide 45 on said levers, all substantially as set forth.

6. The combination, with the car-coupling, of the draw-head having frames C, the coupling-pin, the levers D, having slots  $D'$ , arms  $d d'$ , and shoulders  $D^2$ , the chains E, and the 50 rings F, all substantially as set forth.

7. In a car-coupling, the combination of the draw-head, the coupling-pin, the pin-operating levers, and a stop construction whereby to prevent the upward movement of said pin 55 independent of the levers, all substantially as set forth.

8. In a car-coupling, the combination, with the draw-head, of the coupling-pin, the levers for operating the same, and the clamps or 60 clips secured to said levers and bearing upon the pin, substantially as set forth.

9. In a car-coupling, the combination of the draw-head, the coupling-pin, the levers D, and the longitudinally-sliding rods connected 65 with the said levers, all substantially as set forth.

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Witnesses:

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