

(No Model.)

M. R. THURBER & R. B. BROCKWAY

CAR COUPLING.

No. 363,490.

Patented May 24, 1887.

Fig. 1.

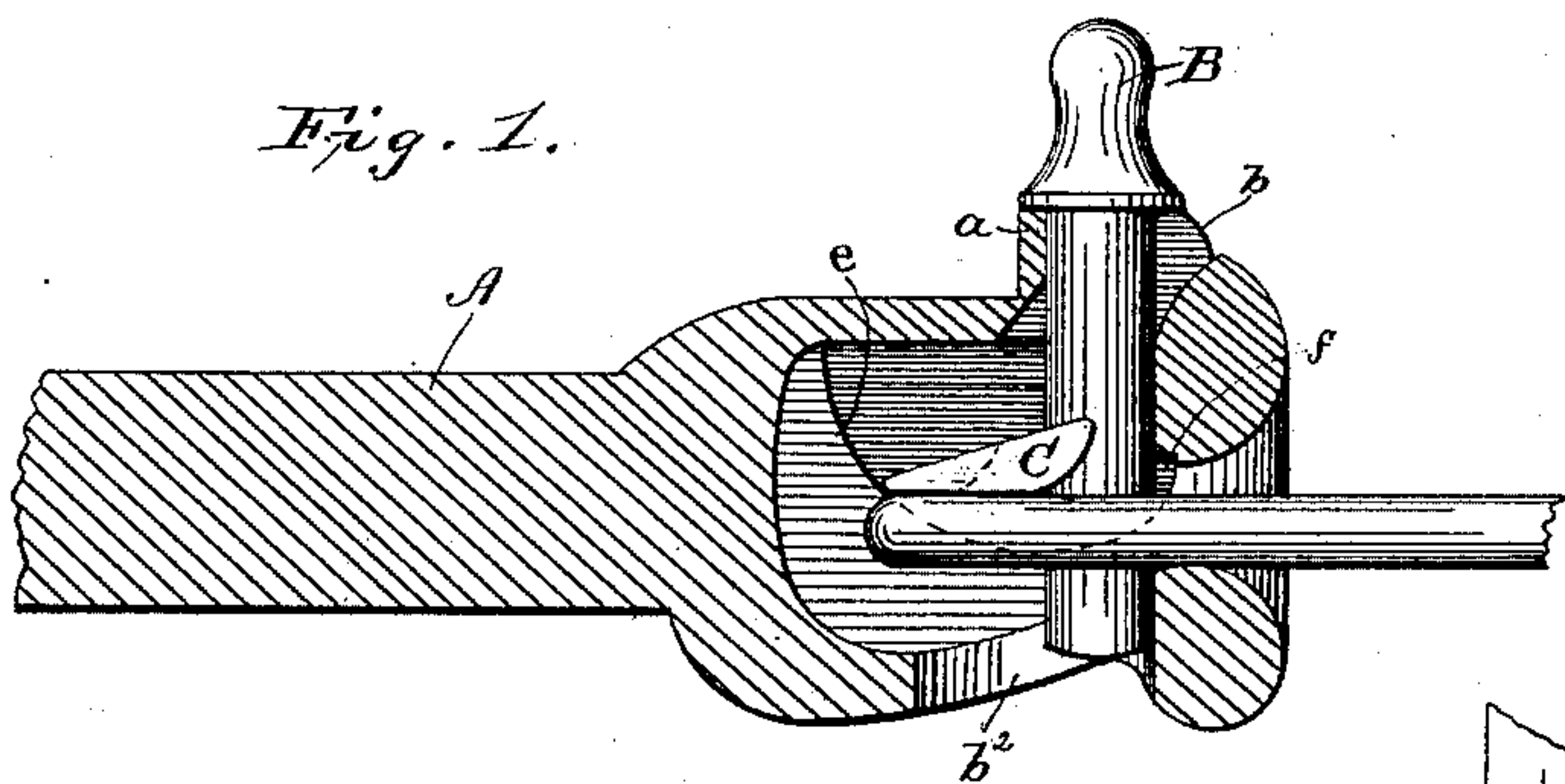


Fig. 2.

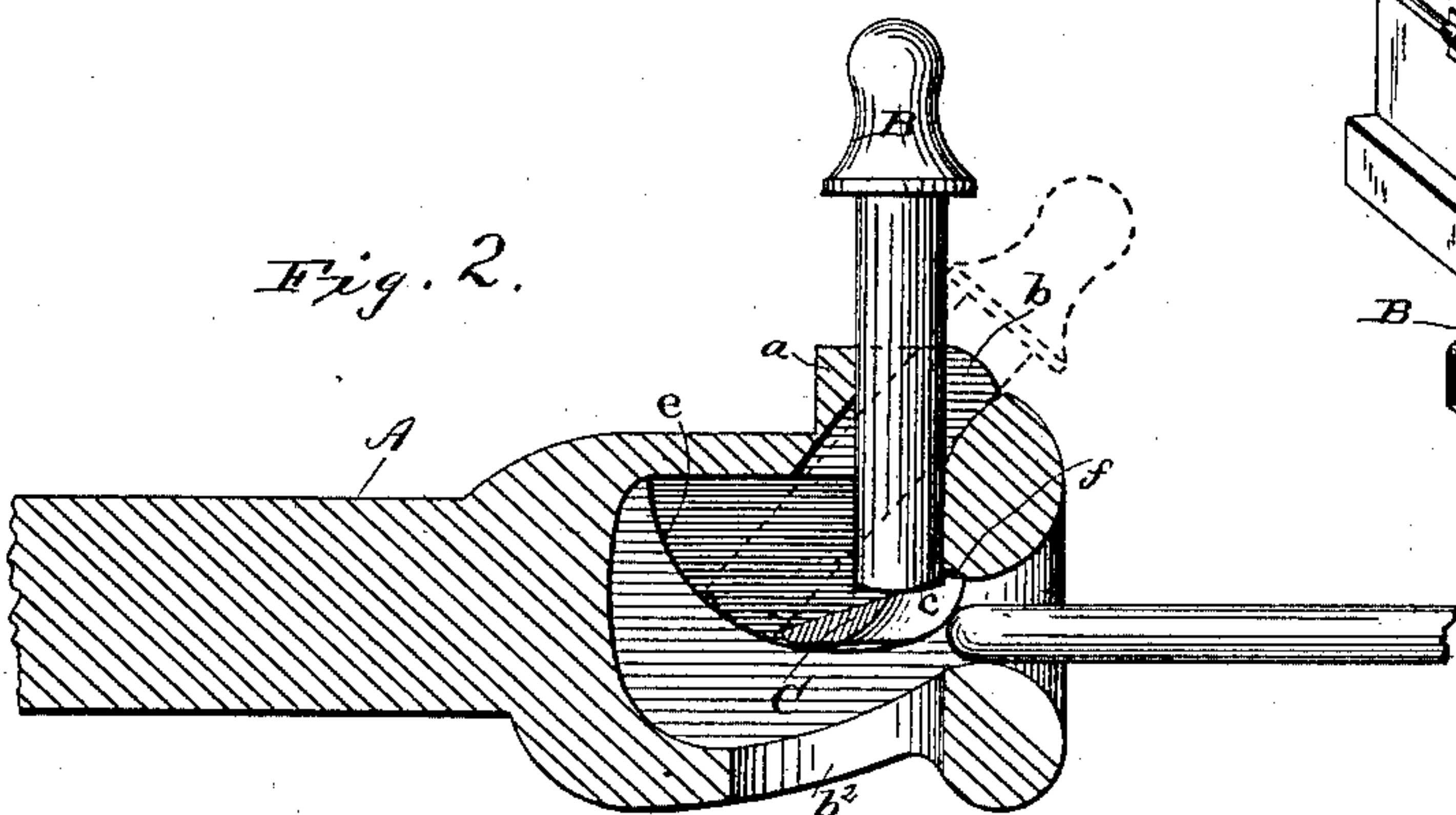


Fig. 3.

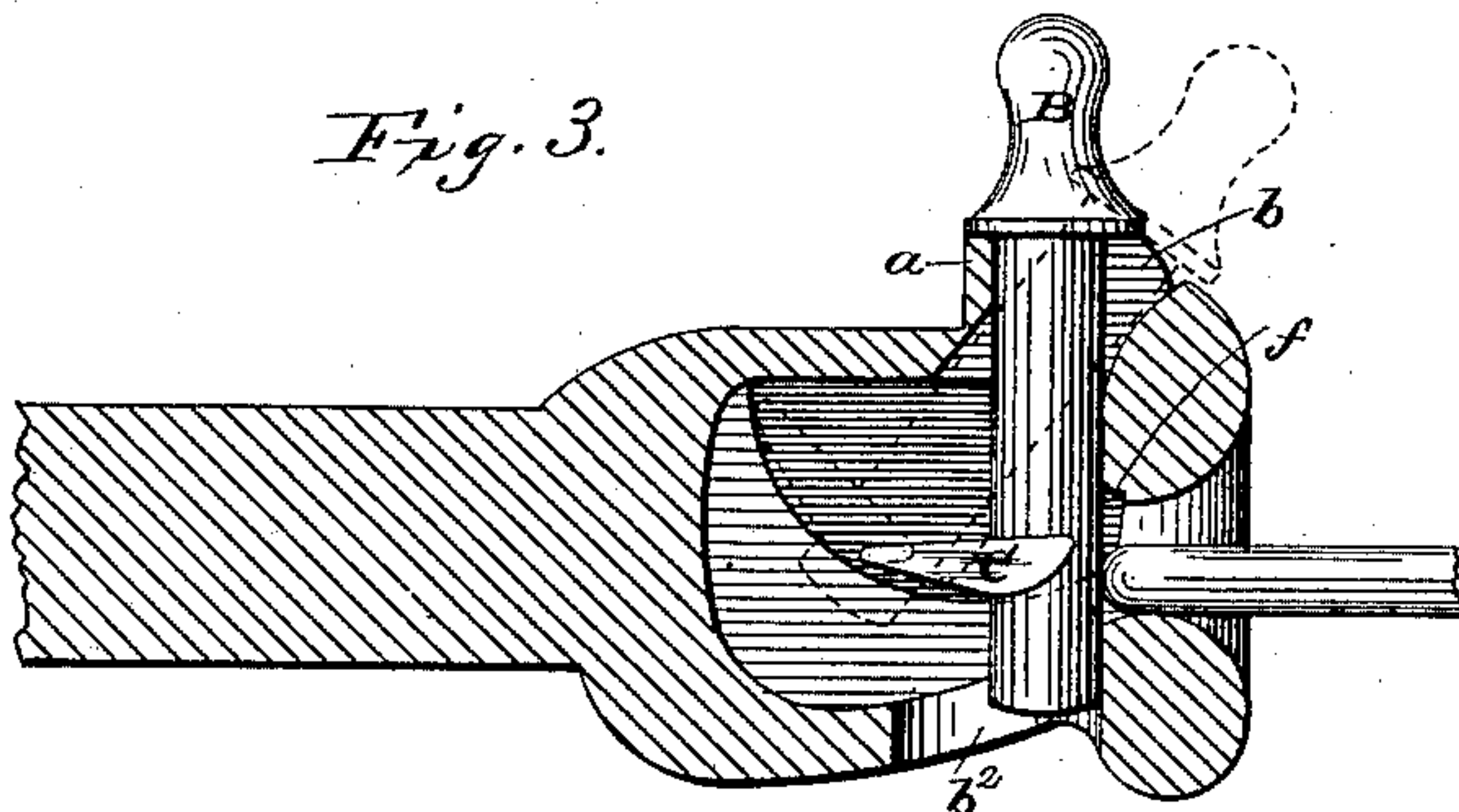


Fig. 5.

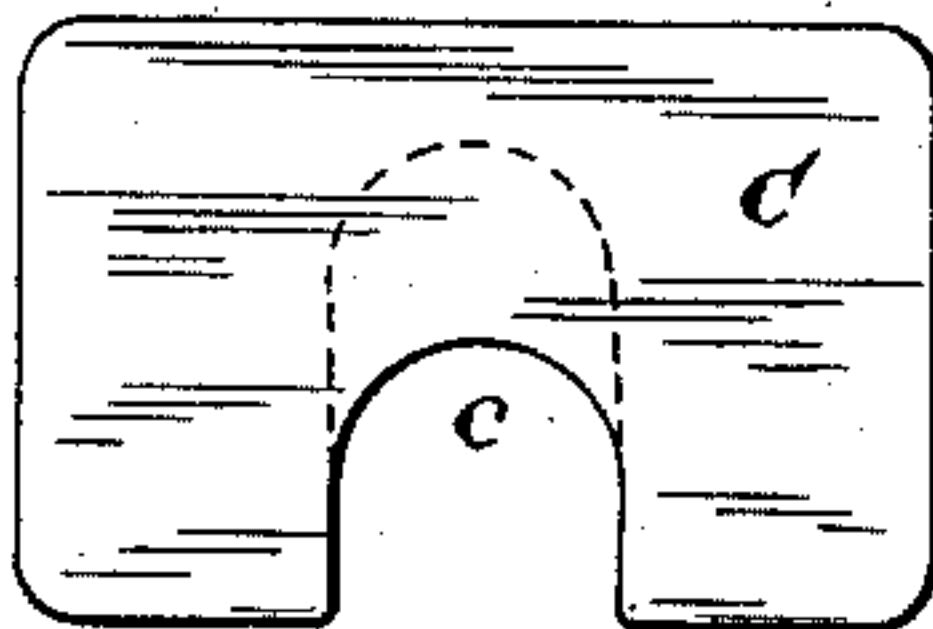


Fig. 6.

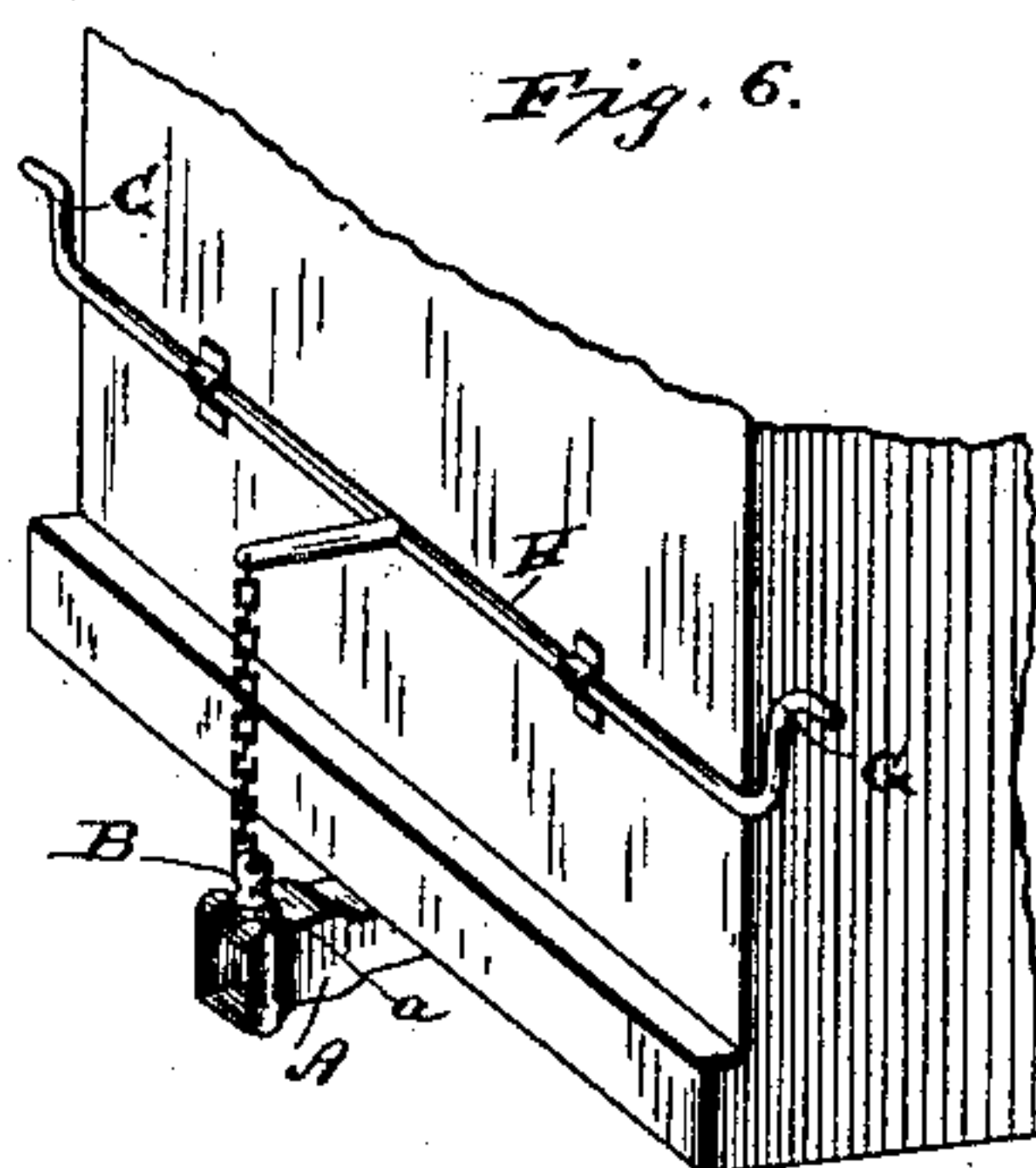
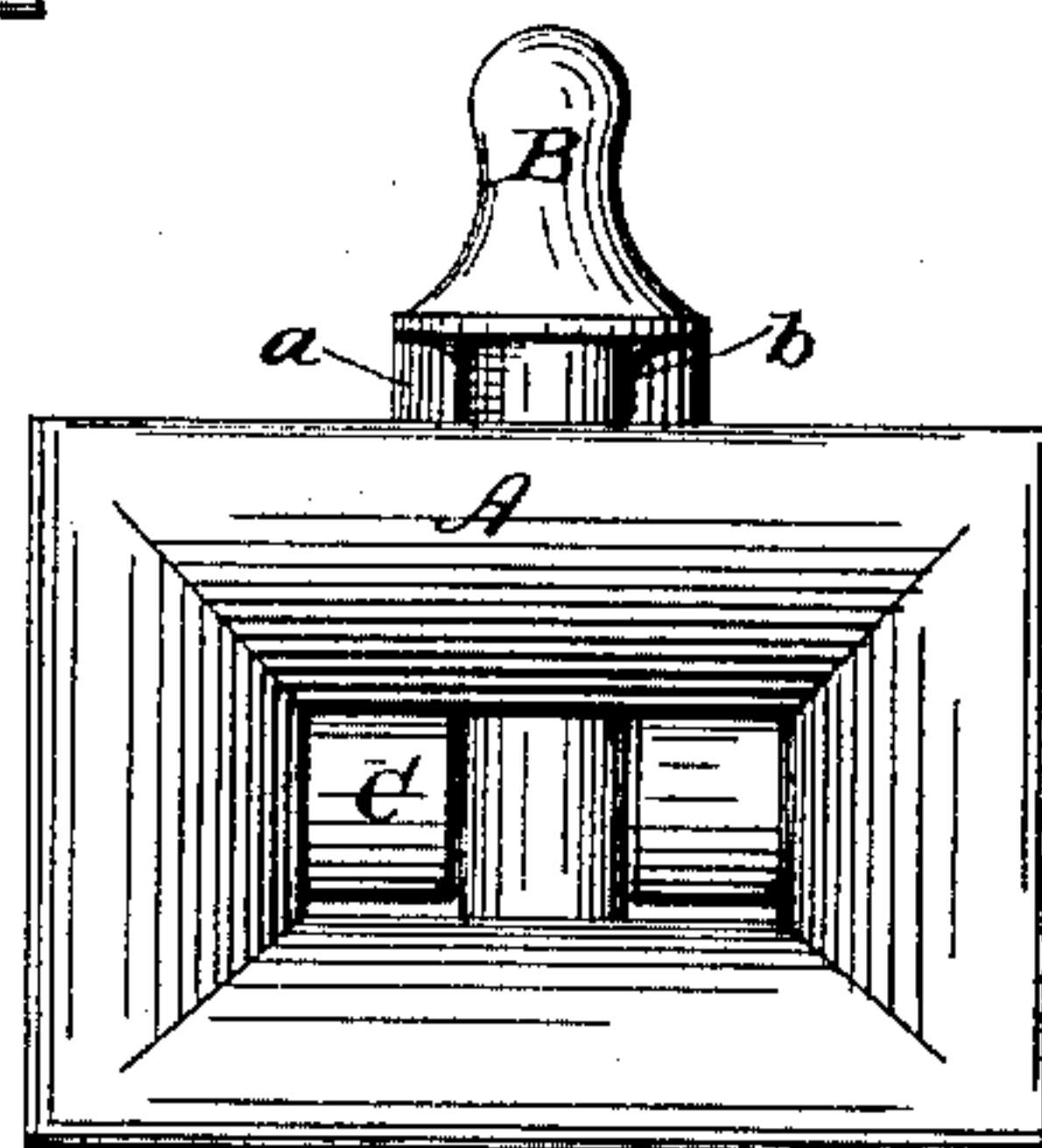


Fig. 4.



Witnesses.
Chas. R. Burr.
A. J. Stewart.

Inventor.
Millan R. Thurber and
Richard B. Brockway
by *Charles H. Threlkeld*
his Attorneys.

UNITED STATES PATENT OFFICE.

MILTON R. THURBER, OF CARBONDALE, AND RICHARD B. BROCKWAY, OF SCRANTON, PENNSYLVANIA.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 363,490, dated May 24, 1887.

Application filed April 8, 1887. Serial No. 234,176. (No model.)

To all whom it may concern:

Be it known that we, MILTON R. THURBER, of Carbondale, and RICHARD B. BROCKWAY, of Scranton, in the county of Lackawanna and State of Pennsylvania, have invented certain new and useful Improvements in Car-Couplings; and we do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, and to the figures and letters of reference marked thereon.

Our present invention relates to certain improvements in that class of car-couplings which employ the ordinary link and pin—such, for instance, as is shown in the patent granted to M. R. Thurber, No. 291,960, dated January 15, 1884; and the said invention consists in certain details of construction and combinations of parts, to be hereinafter described, and pointed out particularly in the claims at the end of this specification.

In the accompanying drawings, Figure 1 represents a sectional view of the draw-head with the link and pin in position for coupling with another car. Fig. 2 is a similar view, showing in full lines the pin raised for coupling and in dotted lines in position for locking the sliding piece forward and preventing the entrance of a link. Fig. 3 shows the pin down and in position for coupling automatically. Fig. 4 is a front view of the draw-head. Fig. 5 is a view of the sliding piece. Fig. 6 represents an arrangement whereby the pin may be raised by the operator standing at the side of the car.

Similar letters of reference in the several figures indicate the same parts.

In the aforesaid patent the draw-head has an elongated slot cut in its side for the insertion and removal of the sliding piece, and the ordinary round holes in top and bottom for the accommodation of the coupling-pin, while in the present case we do away with the opening in the side of the draw-head A and construct the openings for the accommodation of the coupling-pin B as follows: At the top the collar *a*, surrounding the opening, is cut away on the forward side and rounded off, as shown clearly at *b*, and the opening itself beveled so

as to allow the pin to swing back. The opening at the bottom of the draw-head is in the form of a slot, *b*², of about the same width as the ordinary round opening, but of such length as will allow the pin to swing up out of it when pushed back.

On each side of the chamber in the draw-head are inclined ways *e*, upon which the piece C rests. This piece C is inserted through the bell-mouth of the draw-head and turned into position when within the chamber in the same. It is of substantially triangular shape in cross-section, and has a portion of its front edge cut away at *c* for the purpose of preventing any lateral motion of the pin, and at the same time to allow substantially the whole weight of the piece to rest on the link when the latter is in position for coupling, as will be presently explained. The piece C having been inserted in the draw-head and the pin put in position, it may be made to couple with a draw-head having a link therein in two ways: First, the pin may rest on top of the sliding piece C at the rear edge of the notch or cut-away portion *c*, and the link held by the opposite draw-head will, when the two draw-heads come together, strike the said piece C and drive it back up the incline *e*, allowing the pin to drop down through the link. In the second mode of coupling, the pin B and sliding piece C are in the position shown in full lines, Fig. 3, and the link, upon entering the draw-head with the parts in this position, will strike the pin and force it, together with the piece C, which prevents it from lateral motion, back, passing under the end of the pin and allowing the pin to swing down within the link. The pin pivots on the collar *a* when the lower end is so swung back by the link, and the flange on its upper end sliding forward on said collar.

When the link is left in the draw-head in position for coupling with an empty one, it is held in horizontal position by the weight of the piece C resting on its end, the said piece being cut away, as before described, so as to rest with its entire weight on the link at each side of the coupling-pin.

Should it be desired to lock the device in such manner as to prevent coupling being effected when a link is presented, it may be

accomplished by raising the pin and allowing the piece C to slide down to the extreme forward end of the inclines, its forward upper end abutting against the shoulder *f*, and inserting the pin back of it, thus holding it securely forward, so as to effectually stop the mouth of the draw-head, as shown in dotted lines, Fig. 2.

The pin may be withdrawn and the cars uncoupled by an operator standing at either side of the car and operating one of the handles G on the rod H, said rod having a central arm projecting out over the draw-head and connected to the pin by a chain or other flexible connection.

It is perfectly obvious that, in lieu of the slot *b*² in the bottom of the draw-head, it may be provided with a shoulder or stop for the lower end of the pin.

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

1. In a car-coupling, the combination, with the draw-head having the inclines therein, of the piece C, resting on said inclines, and the pin for co-operating therewith, adapted to be pushed back by the entrance of the link to effect the coupling, substantially as described.

2. In a car-coupling, the combination, with the draw-head having the inclines therein, of the sliding piece resting on said inclines, having a portion of its front side cut away for the accommodation of the pin, to prevent lateral motion of the same when pushed back, substantially as described.

3. In a car-coupling, the combination, with the draw-head having the inclines and sliding piece resting thereon, as described, of the opening at the top for the accommodation of the pin, beveled to permit the lower end of the pin to swing longitudinally, and at the bottom of the draw-head a stop for preventing the movement of said pin forward beyond a substantially vertical line, as set forth.

4. In a car coupling, the combination, with the draw-head having the inclines, sliding piece, and pin, as described, of the collar *a*, upon which said pin pivots, cut away on the side nearest the outer end of the draw-head, substantially as and for the purpose set forth.

MILTON R. THURBER.
RICHARD B. BROCKWAY.

Witnesses:

T. E. NEALON,
P. S. JOSLIN.