

(No Model.)

P. BROWN & D. E. DOHERTY.

CAR COUPLING.

No. 364,798.

Patented June 14, 1887.

Fig. 1.

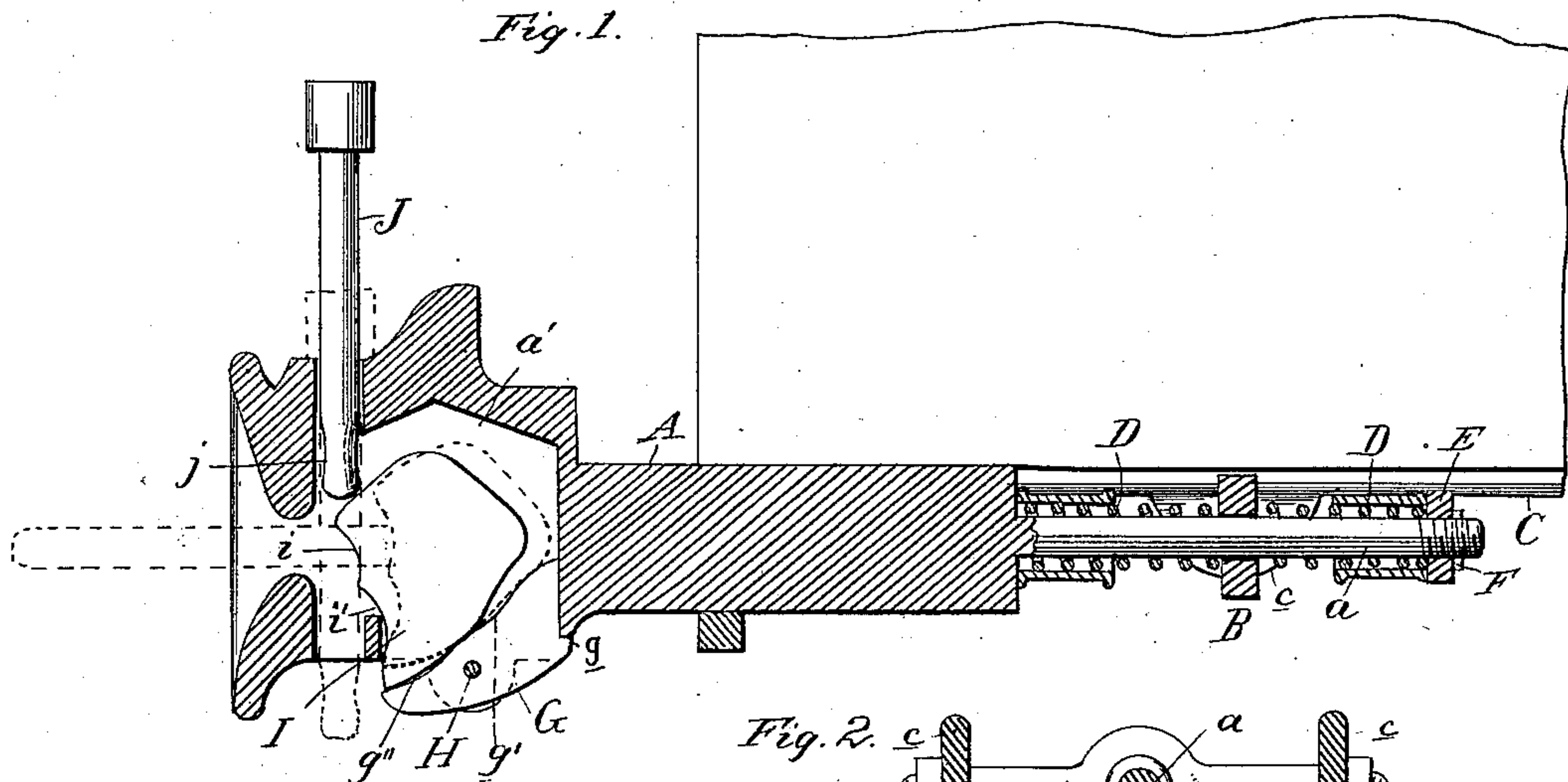


Fig. 2.

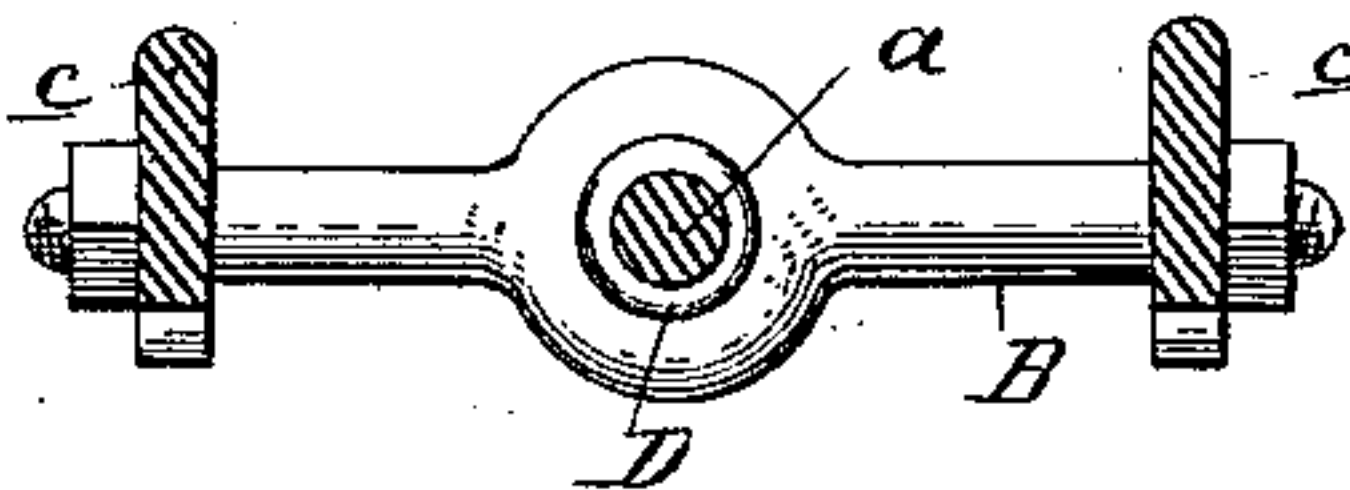


Fig. 3.

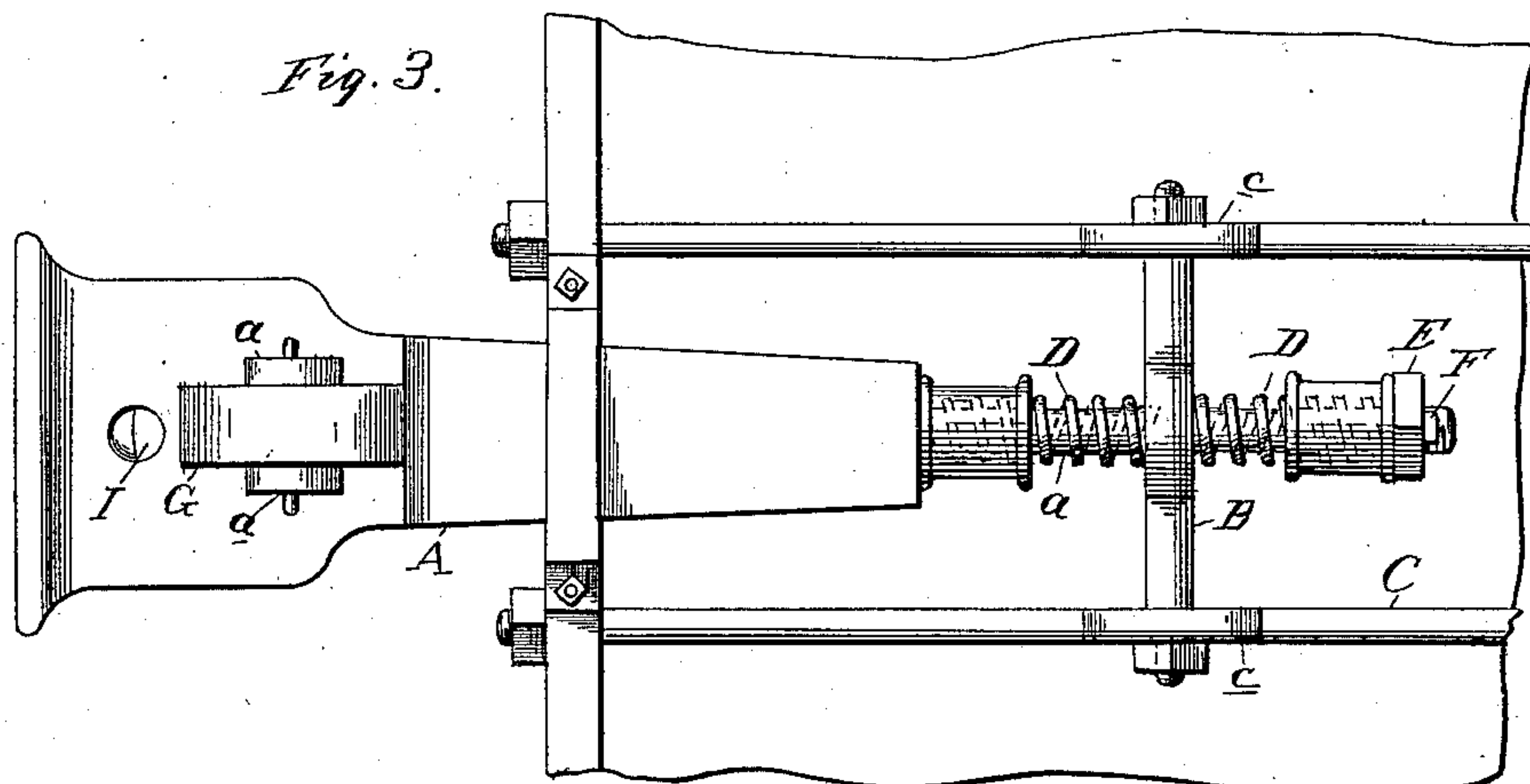
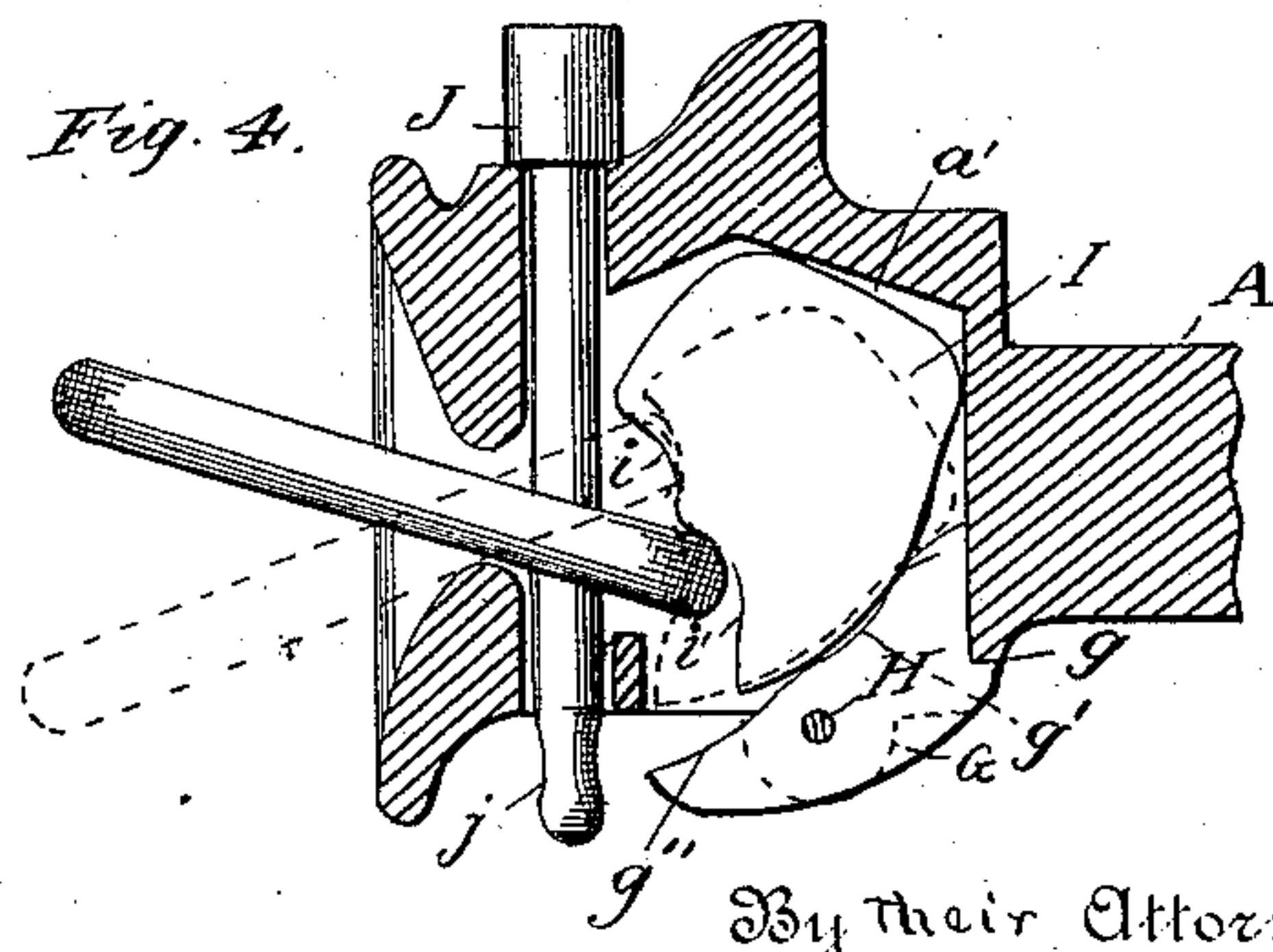


Fig. 4.



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# UNITED STATES PATENT OFFICE.

PERRY BROWN AND DANIEL E. DOHERTY, OF LOUISVILLE, KENTUCKY.

## CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 364,798, dated June 14, 1887.

Application filed October 20, 1886. Serial No. 216,746. (No model.)

*To all whom it may concern:*

Be it know that we, PERRY BROWN and DANIEL E. DOHERTY, both citizens of the United States of America, residing at Louisville, in the county of Jefferson and State of Kentucky, have invented certain new and useful Improvements in Car-Couplings, of which the following is a specification, reference being had therein to the accompanying drawing, in which—

Figure 1 represents a vertical central longitudinal section of a coupling constructed according to our invention; Fig. 2, a rear end view of the same; Fig. 3, a reversed plan thereof, and Fig. 4 a similar section to that in Fig. 1 of the mouth of the draw-head with the link in different positions.

This improvement relates to that style of coupling in which the pin rests on a support which is pushed away by the link as it enters the buffer-head; and the invention consists in the peculiar construction, arrangement, and combinations of parts hereinafter more particularly described, and then definitely pointed out in the claims.

Referring now to the details of the drawings, which show the preferable form of our improvement, A represents the buffer-head, having the usual opening to receive the link, and a rear extension, *a*, which passes through a yoke, B, secured to ears *c c*, attached to the truss-rods, CC, running under the car; or, if preferred, the yoke may be secured in any suitable way to any convenient part of the framework of the car. Around the extension *a* are set (one on each side of the yoke) the spiral springs D D', the latter being held on by a nut, E, and key or wedge F, by which construction the head A is elastically connected with the truss-rods C C, and through them with the car.

The head has a peculiarly-shaped recess, *a'*, which is partially closed at the bottom by a stop, G, which thus forms the bottom of the recess *a'*, and which has an angular notch, *g*, at one end, that rests against the angular corner of the back wall of the recess, as shown, and is held there by a pin, H, that passes through lugs *a''*, formed on the bottom of the draw-head, and through the stop G.

In the recess *a'* is set a peculiarly-shaped block or dog, I, the lower end of which rests on the stop G, and its top supports the coupling-pin J, which may either be of the ordinary variety or be provided with a slight groove, *j*, at or near its lower end.

The face of the upper edge of the stop G is preferably formed of the curved shape shown, with two indentations, *g' g''*, and the dog I has also two indentations, *i i'*, in its face, and its top is inclined both toward the front and rear of the draw-head, as shown in Fig. 1.

The operation is as follows: When two cars are to be coupled, the pin is raised, which will allow the dog I to assume the position shown in full lines in Fig. 1, when the pin will rest upon it, as shown in the same figure. As soon as the link (represented in dotted lines in Fig. 1) from the other car enters, it pushes the dog I, and then the pin will drop down into the link, as shown in dotted lines in Fig. 1 and in full lines in Fig. 4, in which position the pin will be securely held, for the groove *j* in the bottom of the pin will prevent any accidental rising of the pin far enough to uncouple cars.

Owing to the peculiar configuration of the acting face of the stop G and the shape of the dog I, the link may be held in different positions. Supposing that the coupling shown in Fig. 4 is on a car that is to be coupled to another one having a low coupling, the link may be left in the position shown in full lines, so as to readily enter a low coupling. If, however, the opposite car has a high coupling, the outer end of the link can be raised, and by pushing it back slightly the dog will be made to assume the position shown in dotted lines in Fig. 4, and then the link will be held in the position shown in dotted lines by the weight of the dog, so as to enter a high coupling.

It will be seen that our draw-head is a simple casting cored out to receive the pin-link and dog, which latter is put in from below and secured therein by the stop G, which latter is held in place by a simple pin, so that it can be easily removed or replaced should occasion require the same.

From the above it will be seen that we have produced an automatic coupling that is easily made and durable, as it has but few pieces—

one that can be readily coupled to either high or low cars, as desired, and one that is not likely to become uncoupled accidentally.

What we claim as new is—

5 1. The combination, with the draw-head A, pin J, and removable stop G, of the dog I, resting on said stop, and the pin *j*, adapted to rest on the dog, substantially as described.

10 2. The combination, with the draw-head A, pin J, and stop G, having indentations *g' g''*, of the dog I, having indentations *i i'* in its face, whereby the link may be held in different positions by the weight of the dog, substantially as described.

15 3. The combination, with the draw-head A and pin J and the removable stop having an indented face and a shoulder, *g*, of the dog I, resting on said stop, substantially as described.

4. The combination, with the draw-head A, having a recess closed at the top, of the pin J, 20 the removable stop G, having an indented face, and the dog I, also having an indented face, all constructed and arranged substantially as shown and described.

In testimony whereof we affix our signatures 25 each in presence of two witnesses.

PERRY BROWN.

DANIEL E. DOHERTY.

Witnesses to Perry Brown's signature:

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Witnesses to Daniel E. Doherty's signature:

CHARLES J. DOHERTY,

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