

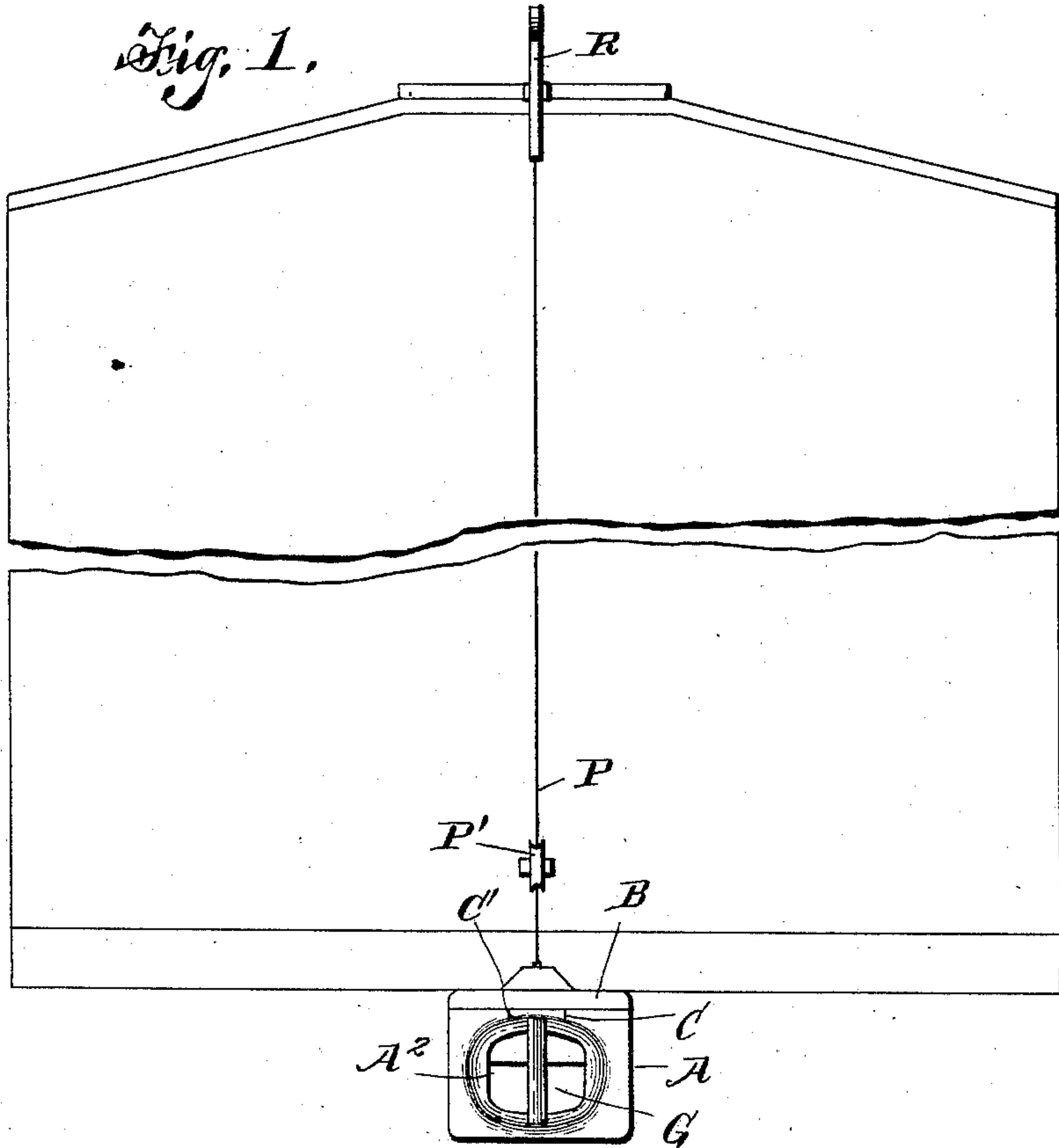
(No Model.)

J. A. MURDEN.  
CAR COUPLING.

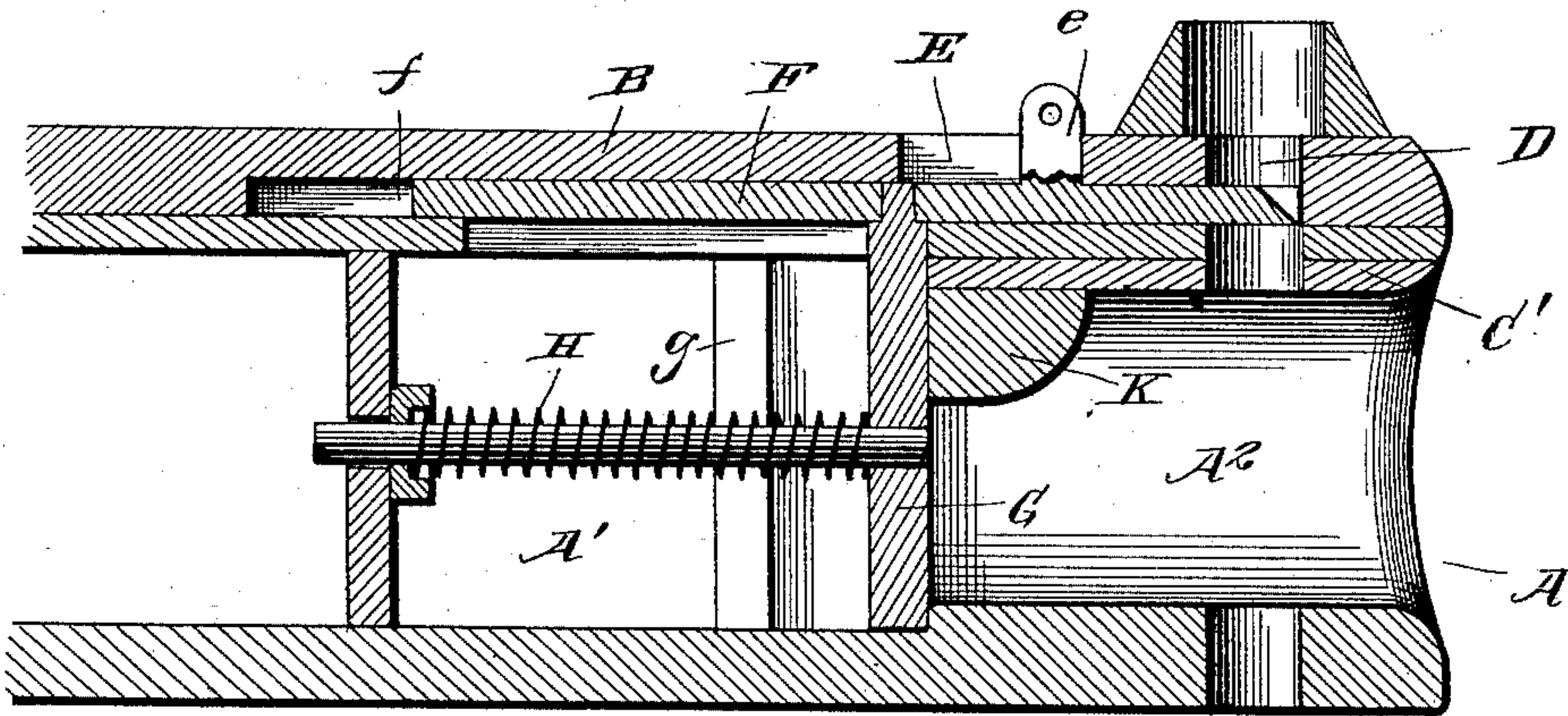
No. 468,679.

Patented Feb. 9, 1892.

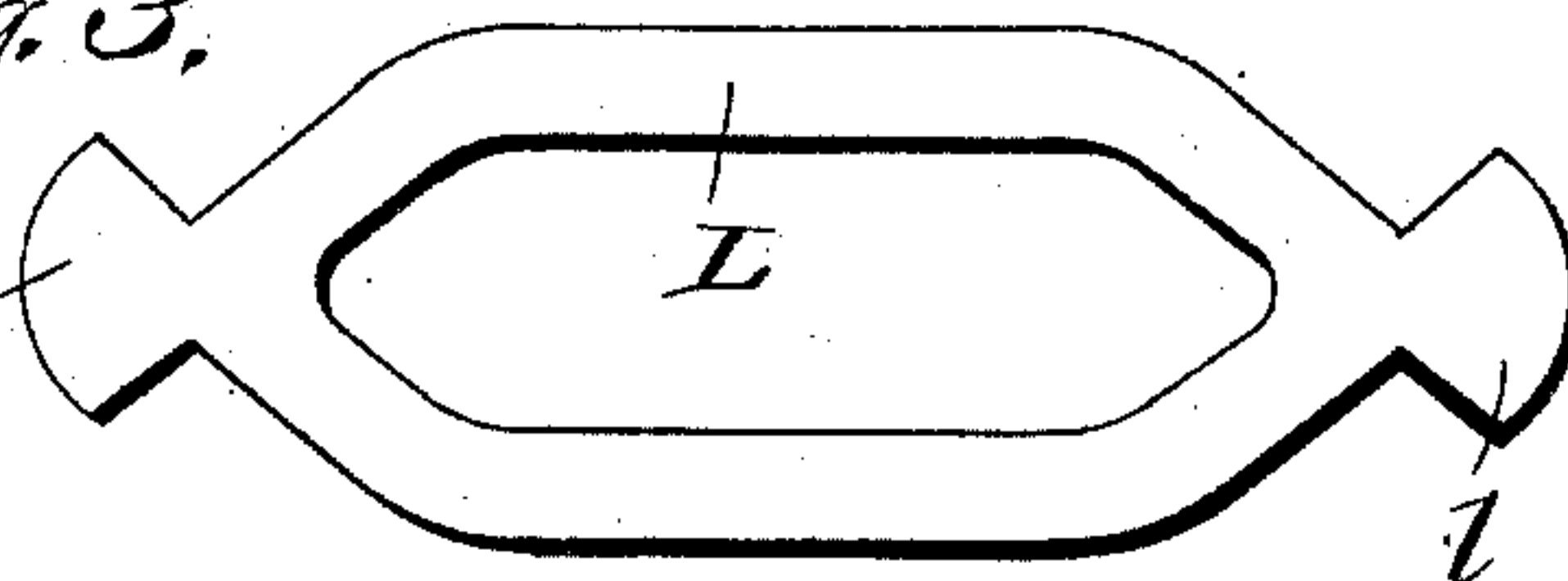
*Fig. 1.*



*Fig. 2.*



*Fig. 3.*



Witnesses  
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# UNITED STATES PATENT OFFICE.

JAMES A. MURDEN, OF NORFOLK, VIRGINIA.

## CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 468,679, dated February 9, 1892.

Application filed September 30, 1891. Serial No. 407,317. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES A. MURDEN, a citizen of the United States, and a resident of Norfolk, in the county of Norfolk and State of Virginia, have invented certain new and useful Improvements in Car-Couplings; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

Figure 1 of the drawings is a front view. Fig. 2 is a vertical longitudinal section. Fig. 3 is a link.

This invention has relation to certain new and useful improvements in car-couplings; and it consists in the novel construction and combination of parts, as hereinafter specified.

In the accompanying drawings, the letter A designates the draw-head, having therein a chamber A', the forward portion A<sup>2</sup> of which is adapted to receive the coupling-link. For this purpose the bottom and lower portion of the sides of this part of the chamber may be concaved, as shown. To facilitate the introduction of the parts now to be described, the top plate B of the draw-head may be made of a separate piece, suitably secured to the body. The upper portions b of the side walls of the forward portion A<sup>2</sup> of the chamber A' are curved inwardly, their edges being separated from each other by a slot C, which is closed by a strip C' on the under face of the top plate B of the draw-head.

Dis the pin-aperture, intersecting the chamber A<sup>2</sup> at right angles. To the rear of this pin-aperture the top plate B is provided with an oblong longitudinal slot E, in which works a vertical projection e of a horizontal sliding plate F. This plate works in ways f, formed in the top plate of the draw-head, and at the rear of the chamber A<sup>2</sup> it carries a vertical transverse strike-plate G, which forms the rear wall of said chamber A<sup>2</sup>. The forward end of the horizontal slide is arranged to normally close the pin-aperture D, serving as a support for the pin when not in coupling engagement. This is accomplished by means of a spring H, confined in the chamber A' and bearing against the portion G.

When the cars come together, the link of the approaching car, entering the chamber A<sup>2</sup>, strikes against the plate G, forcing it backwardly and compressing the spring H. This action withdraws the slide F out of the path of the pin, permitting it to drop through the link and effect the coupling. The slide F being forced forwardly by its spring impinges against the pin and securely holds it in place. The rear movement of the strike-plate G is limited by the stop-strips g, and when at its forward limit it sets against the shoulders h at the rear of the chamber A<sup>2</sup>. Secured in the upper rear portion of the chamber A<sup>2</sup> is a guard or guide K, projecting downwardly into the said chamber and preventing the link from dropping too low, and also serving to direct the end of an entering link to contact with the central portion of the strike-plate.

I may employ an ordinary link, but prefer to use the form shown in Fig. 3, wherein the body L of the link is shown as having at each end a triangular convex offset or projection l, the end portions of the link proper being contracted, as shown at p p. The offsets or projections l l are especially adapted for concussion with the strike-plates. Furthermore, this construction of the link allows it a greater lateral play with relation to the draw-head.

A cable or chain P may be connected to the vertical projection e of the slide-plate, and passes over a pulley P', carried by the car and connected to a lever R, by the operation of which said slide may be retracted to permit the coupling-pin to be withdrawn; or other suitable means may be employed for this purpose. Suitable lever mechanism may be employed, if desired, to withdraw the pin either from the ground or from the car.

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

1. In a car-coupling, a draw-head having a horizontal slide working in ways in the top plate of said head, said slide carrying a vertical transverse strike-plate forming the rear wall of the link-receiving chamber, a spring pressing against said strike-plate and stops for limiting its movement, the forward end of said slide normally lying in the path of the coupling-pin and forming a support therefor and engaging said pin to lock the same when



the parts are in coupled position, said slide having a vertical projection working in a slot in said top plate, and means connected to said projection whereby said slide may be withdrawn from engagement with the coupling-pin, substantially as specified.

2. In a car-coupling, a draw-head having the walls of its link-receiving chamber concaved, a spring-pressed reciprocating strike-plate at the rear of said link-receiving chamber, and a horizontal reciprocating slide connected thereto, said slide having an arm or projection extending through and working in an oblong slot in the top plate of the draw-head, substantially as specified.

3. In a car-coupling, the combination, with the horizontally-reciprocating slide in the upper portion of the draw-head, of a vertical transverse spring-pressed movable strike-plate carried by said slide and forming the rear wall of the coupling-link-receiving chamber, and a rounded or convex block secured in the upper rear portion of said chamber, said block acting as a guide for the link and holding it to the proper position, substantially as specified.

4. A draw-head having the side walls of its link-receiving chamber curved horizontally

toward each other at their upper edges and separated by a slot, and an independent top plate fitting thereon and having a strip fitting in said slot, said top plate having therein a spring-pressed horizontal reciprocating slide normally forming a support for the pin and engaging the same when the parts are in coupled position, substantially as specified.

5. In a car-coupling, the combination, with a draw-head having a spring-pressed strike-plate therein, of the top plate having the horizontally-reciprocating slide therein connected to said strike-plate, said slide having a vertical projection working in a slot in said top plate, and means connected to said projection whereby the slide may be withdrawn from engagement with the coupling-pin, substantially as specified.

6. In a car-coupling, a link having triangularly-shaped ends, each of which is projected to form triangular convex offsets or heads, substantially as specified.

In testimony whereof I affix my signature in presence of two witnesses.

JAMES A. MURDEN.

Witnesses:

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