

(No Model.)

G. M. ROBBINS.

CAR COUPLING.

No. 393,393.

Patented Nov. 27, 1888.

Fig. 1.

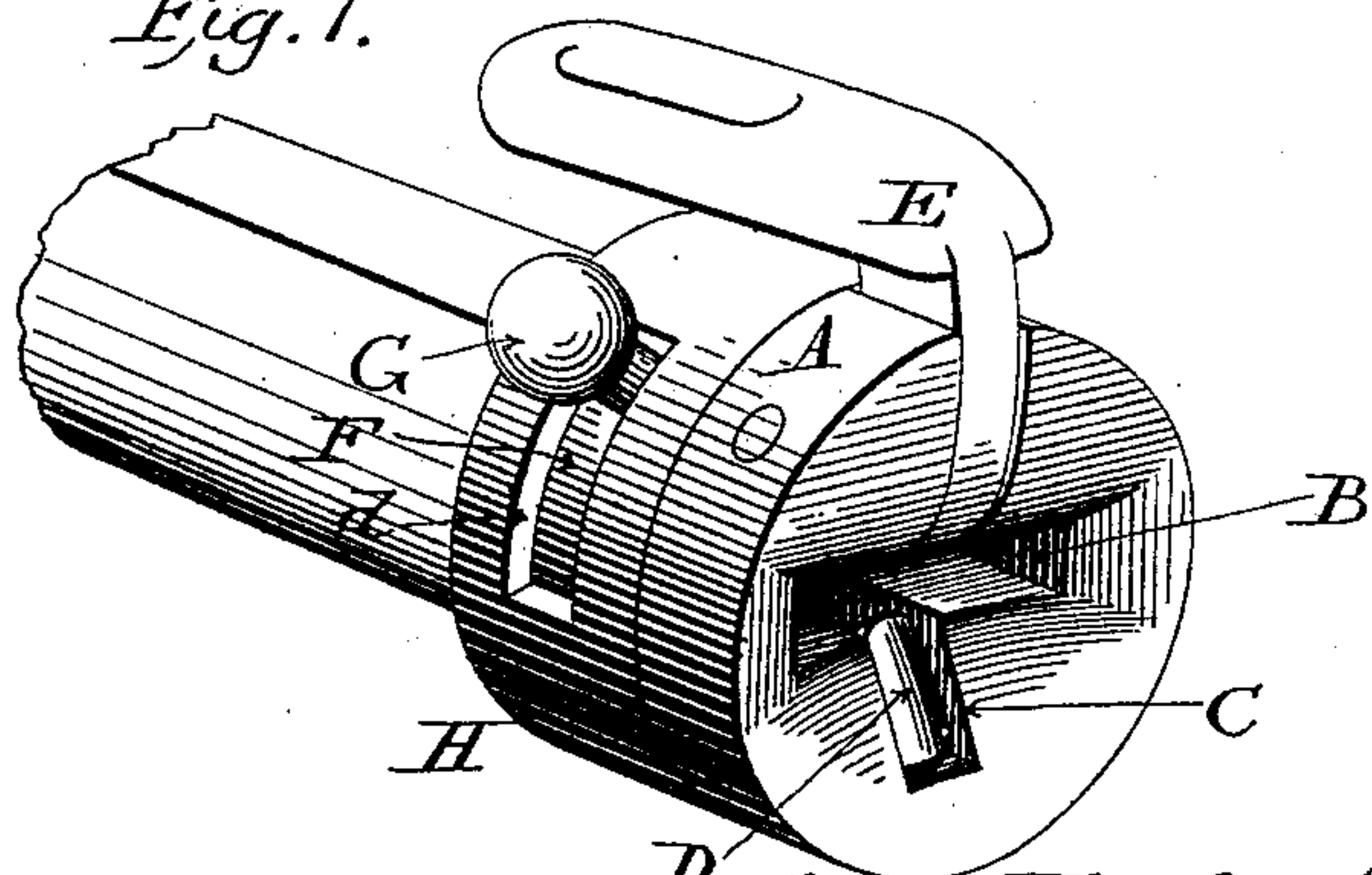


Fig. 2.

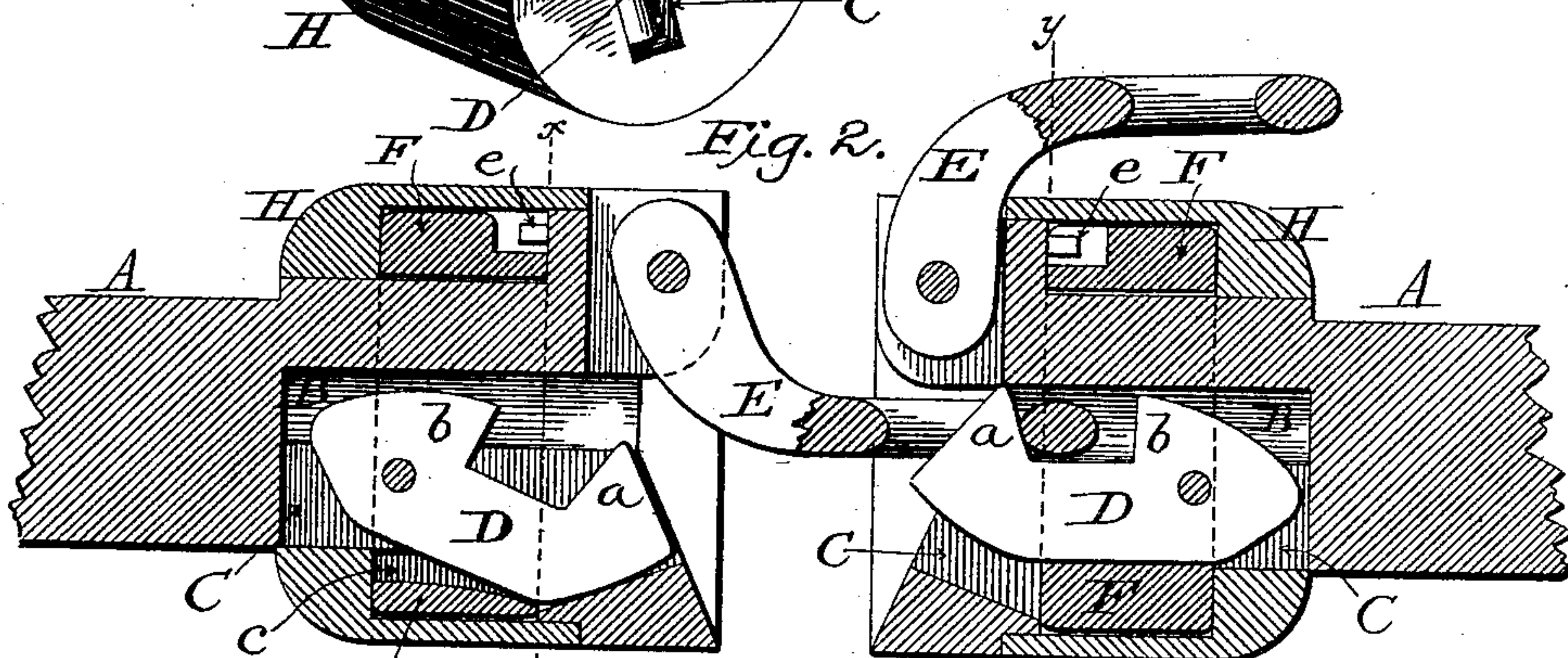


Fig. 3.

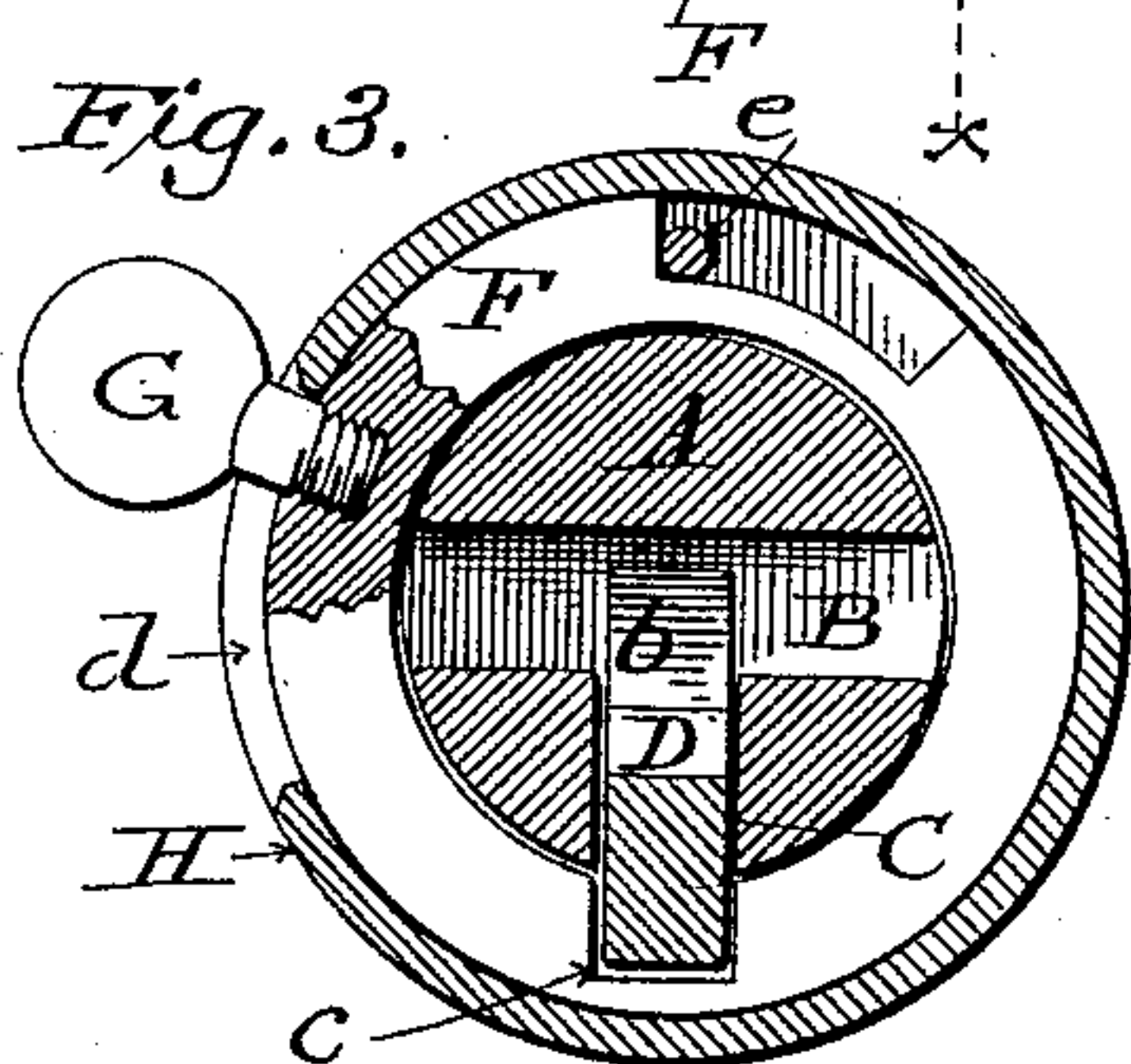


Fig. 4.

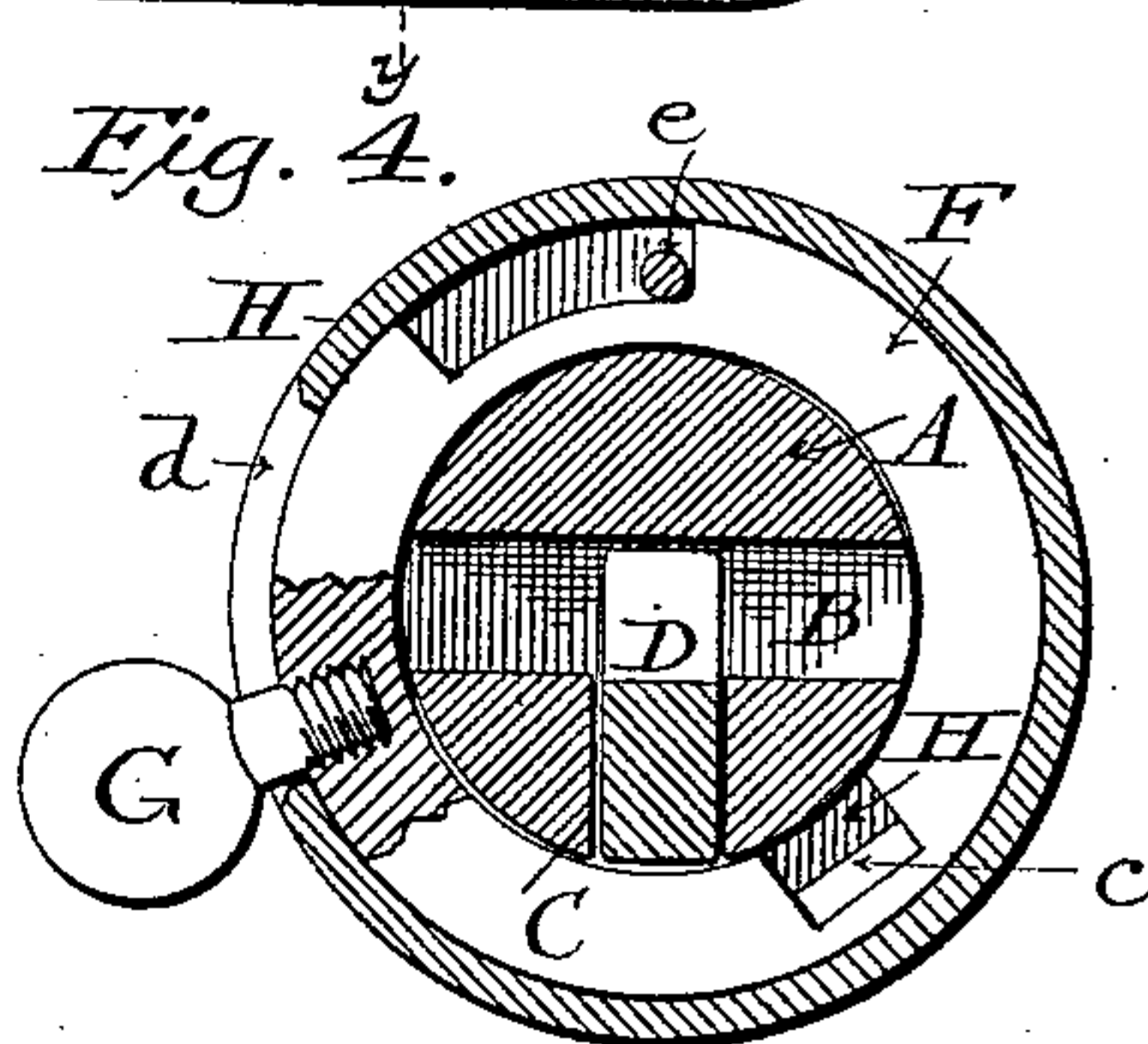
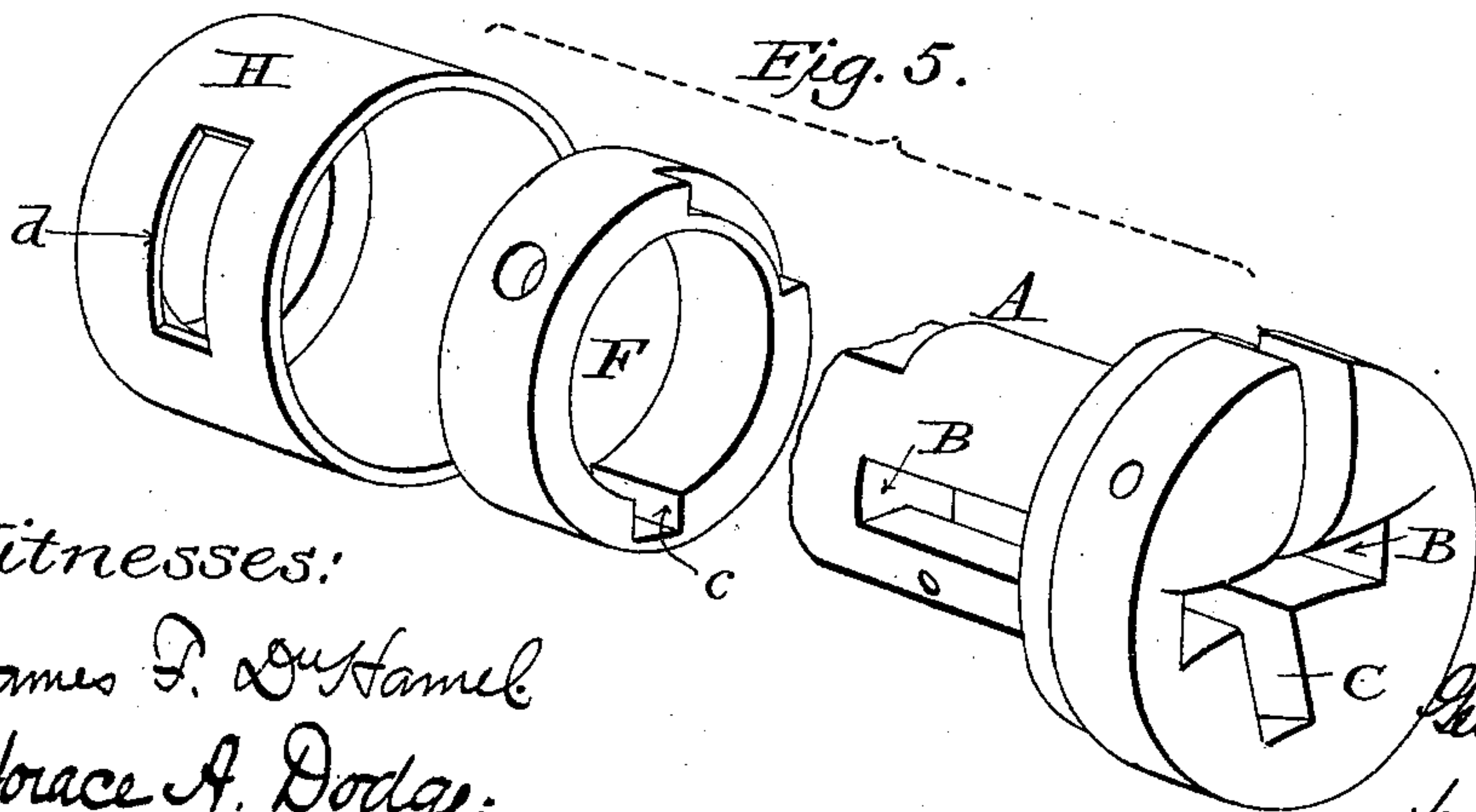


Fig. 5.



Witnesses:

James F. DuHamel
Horace A. Dodge.

Inventor:

Geo. M. Robbins,
by Dodge & Sons,
his Atty.

UNITED STATES PATENT OFFICE.

GEORGE M. ROBBINS, OF WORCESTER, MASSACHUSETTS, ASSIGNOR OF TWO-THIRDS TO EDMUND CONVERSE AND AMBROSE T. MATTHEWS, BOTH OF SAME PLACE.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 393,393, dated November 27, 1888.

Application filed September 8, 1888. Serial No. 284,906. (No model.)

To all whom it may concern:

Be it known that I, GEORGE M. ROBBINS, of Worcester, in the county of Worcester and State of Massachusetts, have invented certain new and useful Improvements in Car-Couplings, of which the following is a specification.

My invention relates to car-couplings; and it consists in various novel features and details, hereinafter fully set forth and claimed, the object of the invention being to simplify and cheapen the construction of the coupler without unduly increasing the weight and without a sacrifice of strength.

In the drawings, Figure 1 is a perspective view of my improved coupler; Fig. 2, a longitudinal sectional view showing two couplings connected; Figs. 3 and 4, sectional views on the lines *x x* and *y y*, showing the parts in different positions; and Fig. 5, a perspective view of the parts separated.

A indicates the draw-head, provided with a longitudinal slot, B, extending inward from its front face to receive the link, and provided also with a longitudinal slot, C, intersecting the former slot to receive the pivoted hook D. This hook D is provided with a nose, *a*, and a tail, *b*, having an upright front face, as shown, the construction of these parts being such that when the hook is not in engagement with the link its nose will be out of the way, while its tail always projects up into the slot B.

E indicates the link, preferably L-shaped, pivoted to the upper or lower face of the draw-head and arranged to swing vertically in relation thereto, instead of being pivoted at the side, as in my former patent, No. 383,991. The link is adapted to swing up out of the way over the top of the draw-head when not in use; but when swung down into position for use it will be in proper position to enter the slot B and to engage or be engaged by the hook D. If two cars should come together and it should happen that the link on each was down, upon striking against each other, these links would rise at their free ends, thereby preventing injury to these parts. It is obvious that in lieu of these pivoted links the ordinary links may be used.

In order to cause the cars to couple and un-

couple automatically, I employ a device which, when the cars come together, automatically locks the hook in position, and which, should the cars upset and turn partly over, releases the hook. This device consists, essentially, of a ring, F, which encircles the reduced cylindrical neck of the draw-head, as shown in all the figures. The ring F is provided with a seat or recess, *c*, in which the hook D normally rests, as shown in Fig. 3, and is also provided with a weight, G, which projects out through an opening, *d*, in a shell or cap, H, holding the ring in place. The ring is adapted to turn upon the neck of the draw-head a limited distance, the latter being controlled by means of a pin, *e*, secured to the draw-head and working in a slot in the ring, as shown in Figs. 2, 3, and 4. The parts are represented in their normal positions in Figs. 1 and 3, upon reference to which, and to the left-hand coupling of Fig. 2, it will be seen that the weight G is at its highest point, and the hook D in its seat in the ring F and its nose *a* out of the way. The ring is prevented from turning by reason of its being engaged by the hook D; but as soon as the end of the link strikes the upright face of tail *b* it throws the nose of the hook up into engagement with the link, and as the hook thus rises out of the seat in the ring the weight falling a limited distance turns the ring, as shown in Fig. 4. This brings a solid portion of the ring beneath the hook and prevents it from falling away or becoming disengaged from the link. The weight G will keep the ring in this position so long as the cars remain upright; but should the cars turn over the weight would hold the ring at rest, while the other parts would turn, thereby bringing the hook over the seat in the ring and permitting the automatic uncoupling of the cars. Cap or shell H fits over the ring F and the reduced neck of the draw-head, and is secured to the latter in any suitable manner.

The weight may be connected by means of a chain with a hand-lever pivoted to the platform, so as to raise the weight to its normal position, and when, as in some cases, the link is pivoted to the lower side or face of the draw-head, I will employ a link-supporting device;

but as these devices are common and well known and form no part of the present invention it is not deemed necessary to illustrate them.

5 Having thus described my invention, what I claim is—

1. In a car-coupler, the combination, with a draw-head, of a hook pivoted therein and a weighted ring encircling the draw head and
10 provided with a seat for the hook.

2. In a car-coupler, the combination, with a draw-head having a pivoted hook, of a ring encircling the draw-head and provided with a seat for the hook and a pin or stop to limit
15 the movement of the ring.

3. In a car-coupler, the combination of a draw-head, a pivoted hook, a ring provided with a seat for the hook, a weight secured to the ring, and a cap or shell covering the ring
20 and provided with an opening in its side.

4. In a car-coupler, the combination, with the draw-head provided with a vertical slot in its front wall, of the L-shaped link E, pivoted in the slot and adapted to swing upward above the top of the draw-head, so as to permit the
25 link of another car to enter the draw-head, all substantially as shown.

5. In a car coupler, the combination, with a draw-head, A, having intersecting slots B and C, hook D, pivoted in slot C, and a weighted
30 ring, F, encircling the draw-head and provided with a seat to receive the hook.

In witness whereof I hereunto set my hand in the presence of two witnesses.

GEORGE M. ROBBINS.

Witnesses:

C. F. STEVENS,
WM. E. LEWIS.