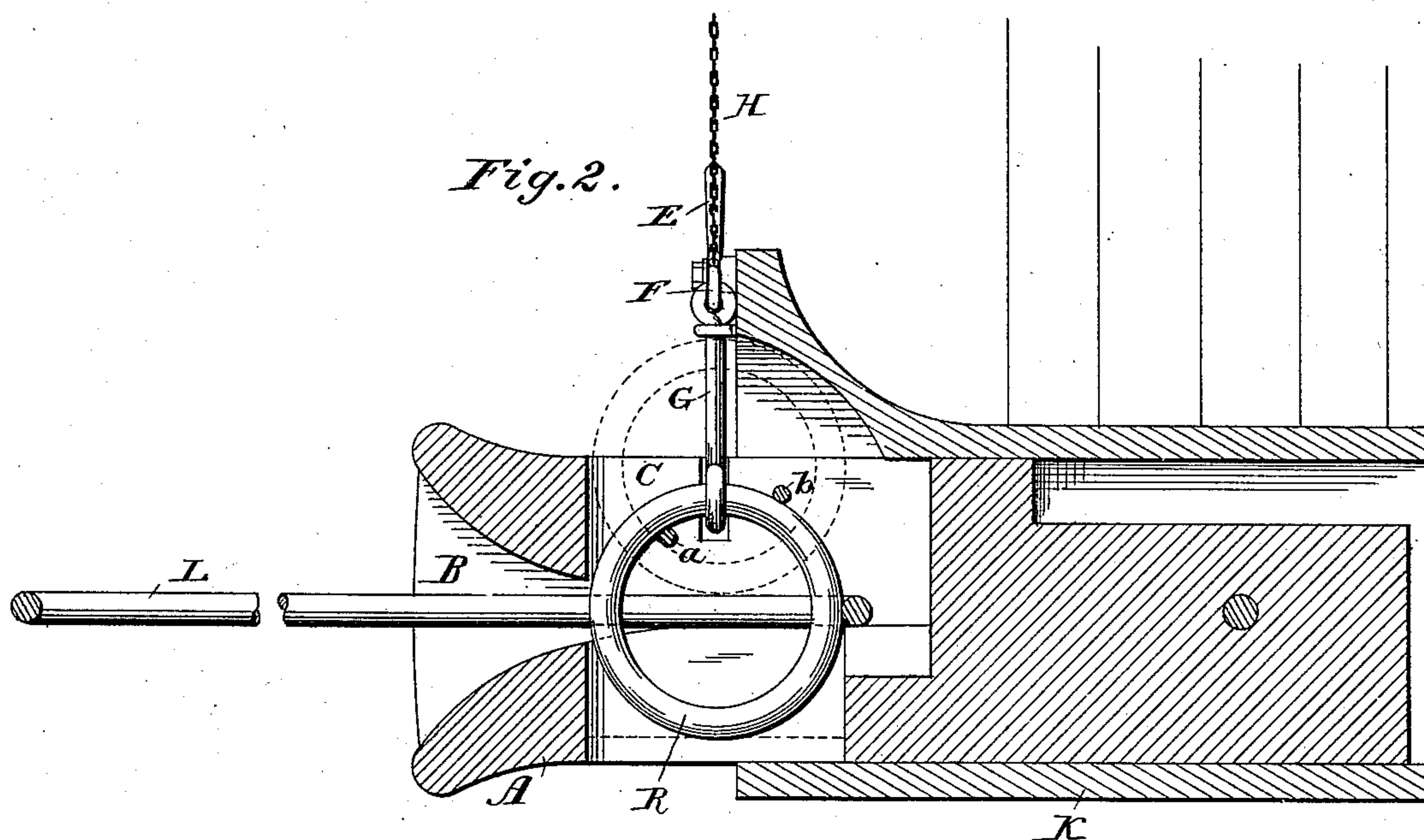
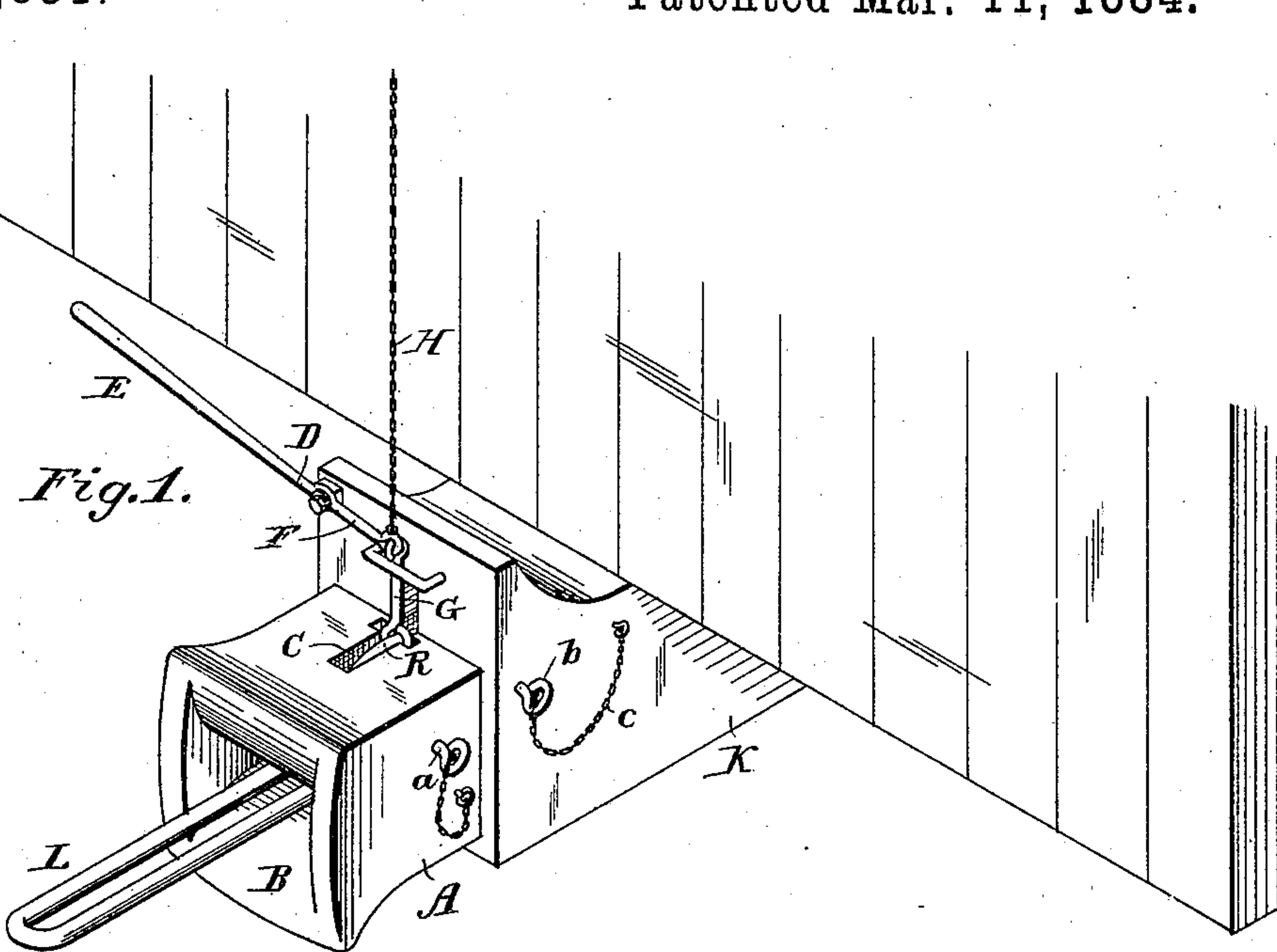


(No Model.)

J. WHITE.
CAR COUPLING.

No. 294,831.

Patented Mar. 11, 1884.



Attest:
Comptroller.
H. E. Tanomann.

Inventor:
Josiah White,
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UNITED STATES PATENT OFFICE.

JOSIAH WHITE, OF TOLEDO, ILLINOIS.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 294,831, dated March 11, 1884.

Application filed September 19, 1883. (No model.)

To all whom it may concern:

Be it known that I, JOSIAH WHITE, a citizen of the United States, and a resident of Toledo, Cumberland county, Illinois, have invented
5 certain new and useful Improvements in Car-Couplings, of which the following is a specification.

My invention relates to an improved means for coupling cars, so arranged that the coupling of the cars is effected by running them in
10 contact with each other, and the operation of one coupling is effected from the platform or roof of the car, or from the ground outside of the track, the object being to insure a certain
15 and simple means of attaching cars by their own motion and detaching them from different positions on the cars or outside thereof, and to avoid the imperiling of human life in so doing.

20 To these ends my invention consists in providing the draw-heads of railway-cars with slots and securing therein a metal ring that serves the purpose of an ordinary coupling-pin, and is so arranged that a coupling-link
25 upon another car will enter the draw-head and automatically become locked or coupled.

It also consists in means whereby the coupling-ring may be operated in uncoupling the cars from various positions in or upon the car
30 or upon the ground outside the track.

It also consists in means whereby the ring may be secured against accidental displacement when the cars are coupled.

In carrying out my invention the draw-heads of railway-cars are provided with the
35 usual openings for the reception of the connecting-links. A vertical slot is made through the upper part of the draw-head, which may extend into or through the lower part. In this
40 slot is placed a metal ring, which is preferably supported upon a pin or bar passing through the sides of the head, so that normally the center of the ring will be in line with the opening in the end of the draw-head. When a
45 coupling-link is inserted in the opening in the draw-head, it impinges against the ring, which is caused to swing upward around its sustaining rod or bar, and upon the further movement of the coupling-link it passes beyond
50 the ring, which falls by its own weight into the link, securely fastening the same in the draw-head. It will be seen that any tension

or draft upon the link will be sustained by the ring, which bears against the forward sides of the slot. In order that the ring may be
55 easily and safely raised to uncouple the cars, there is provided upon the frame of the car, in any suitable position, a lever, upon the short end or arm of which is secured a hook, which takes into the ring. The long arm of this lever
60 extends to or near the outside of the car. To the lever is also attached a rod or connection extending upward to the top of the car. By these means it will be seen that the ring may be raised, thereby uncoupling the car,
65 from any position on the platform or roof of the car or upon the ground outside the car. In some conditions it may be necessary to secure the ring in its coupling condition, so that it will not become displaced by accident or
70 otherwise. For this purpose a pin is provided, which enters a hole passing through the sides of the head in such a position as to bear upon the ring and prevent its rising.

In order to more particularly describe my
75 improved coupling, reference is made to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a perspective view of my improved coupling as applied to the end of a
80 freight-car. Fig. 2 is a longitudinal section of the coupling, showing the position of the ring when the cars are coupled in full lines, and when they are uncoupled in dotted lines.

In the drawings, the draw-head A is connected in the usual manner, by springs or otherwise, to the frame or buffer of the car. It is
85 provided with the usual flaring opening, B, for the reception of the connecting-link L. In the upper side is cut a longitudinal slot, C, extending wholly or in part through the lower or under side. In this slot is placed the metal ring
90 R, which serves the purpose of a coupling-pin. The ring is preferably secured upon a pin or rod, a, passing through the draw-head in such
95 a position as to normally sustain the ring with its center about midway the opening B in the head.

Upon the buffer or frame of the car is secured a lever, D, the longer end, E, of which
100 extends to the side of the car. To the short arm F is hung a hook, G, which passes under and around the coupling-ring R. A rod, chain, or other connection, H, is connected to the lever,

and extends to the top of the car. By this means it will be seen that the ring can be raised to the position shown in dotted lines in Fig. 2, which withdraws the ring from the coupling-link L, allowing the cars to become detached.

When it is desired to secure the ring R in its coupling position, so that it may not be displaced accidentally or otherwise, a pin, *b*, is inserted through the head in holes provided in such a position that it prevents the ring rising out of the coupling-link. This pin is attached to the head by a string or chain, *c*, or any other suitable means. Another way of securing the ring in position is by sliding the head-block into the case or buffer K so far that the ring cannot rise; but this is not so convenient as the former way of securing the ring by a pin, *b*.

When the improved coupling is used upon passenger-cars, the lever and rods need not be used, a chain or other connection being sufficient to raise the ring to uncouple. In some instances it is preferable to allow the ring to rest in the lowermost slot, as shown in dotted lines, and then it may be raised in a vertical line in coupling or uncoupling the cars.

The operation of the device is apparent from the above description. The ring being in its normal position, as shown in the drawings, the link L, either in the hands of the brakeman or secured in position in the head of another car, enters the opening B, and, impinging upon the ring, causes it to swing around its supporting-pin *a* until it rises sufficient to allow the link to pass under it, when it falls into the link, and is interposed between the end of the link and the front side of the slots in the head. Any tension upon the link is borne by the ring, which in turn bears upon the draw-head. When it is desired to uncouple the cars or remove the link, it is only necessary to move the ring to the position shown in dotted lines by any of the described means. The ring may be locked in position by the pin *b*, or otherwise, as suggested.

From this description it will be seen that

my invention embodies a very simple, cheap, and effectual construction of an automatic coupling device, and one that can be adapted to the ordinary coupling devices now in general use at very little expenditure of time or money.

The advantages of a self-coupling device are too well recognized to need exposition here, and it has been my object to construct such a device in a simple and cheap manner, so that it may be universally adopted and danger of accidents to brakemen and others avoided.

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

1. A draw-bar for railway-cars, provided with a ring serving as a coupling-bolt, as described.

2. The combination, with a draw-head for railway-cars, of a ring serving as a coupling-pin, and means for holding it in its normal position behind the link-opening, substantially as described.

3. The combination, with a draw-bar having a slot, of a coupling-ring supported therein, and means for raising the ring to uncouple the cars, as described.

4. The combination, with the self-coupling draw-head provided with a ring, as described, of means for securing the ring in a coupled condition, as set forth.

5. The self-acting car-coupler, consisting of a slotted draw-head, a ring secured therein and serving as a coupling-pin, means for locking it in its coupling position, and means for uncoupling it without danger of injury to the operator, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOSIAH WHITE.

Witnesses:

WESTERN R. HUMPHREY,
W. A. MILLER.