

E. H. SCHMIDT.
 CAR COUPLING MECHANISM.
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1,051,455.

Patented Jan. 28, 1913.

Fig. 1.

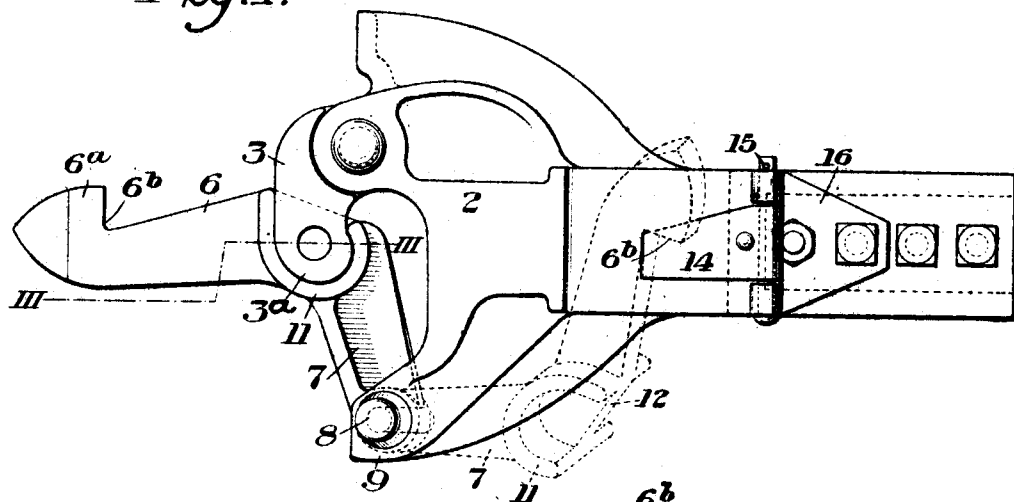


Fig. 2.

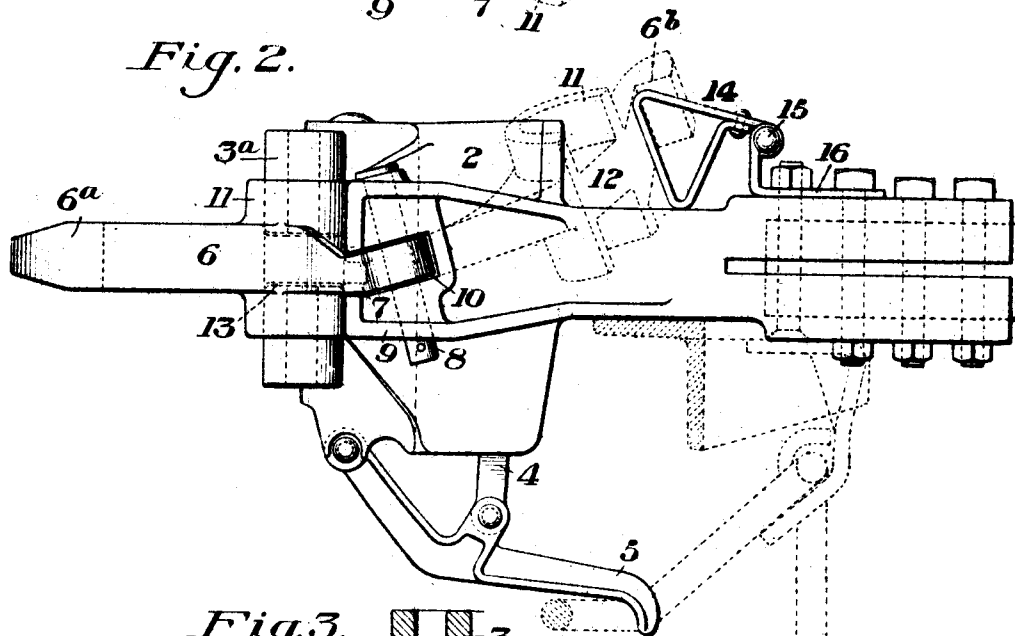
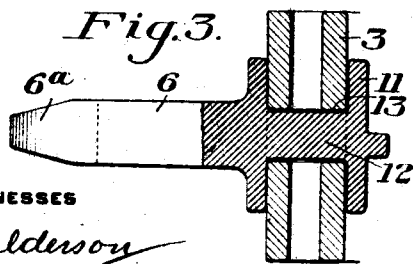


Fig. 3.



WITNESSES

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UNITED STATES PATENT OFFICE.

ERNEST H. SCHMIDT, OF CLEVELAND, OHIO, ASSIGNOR TO THE NATIONAL MALLEABLE CASTINGS COMPANY, OF CLEVELAND, OHIO, A CORPORATION OF OHIO.

CAR-COUPLING MECHANISM.

1,051,455.

Specification of Letters Patent. Patented Jan. 28, 1913.

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To all whom it may concern:

Be it known that I, ERNEST H. SCHMIDT, a citizen of the United States, and a resident of Cleveland, Cuyahoga county, Ohio, have invented a new and useful Car-Coupler Mechanism, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a plan view of one form of coupler mechanism embodying my invention; Fig. 2 is a side view of the same; Fig. 3 is a detail sectional view taken on the line III—III of Fig. 1.

My invention has relation to car coupler mechanism, and is designed to provide means for the installation and use of automatic couplers of the M. C. B. type upon cars which must be coupled not only with other M. C. B. couplers, but also with other types of couplers well known in street railway practice, such for instance as the Van Dorn coupler.

A further object of the invention is to provide an automatic coupler of the M. C. B. type with a supplemental coupling device adapted to another form of coupler, and which can be readily attached to, or detached from the automatic coupler or otherwise brought into and out of operative position.

The nature of my invention will be best understood by reference to the accompanying drawings, in which I have shown the preferred embodiment thereof, and which will now be described, it being premised, however, that various changes can be made in the form, construction and arrangement of the several parts by those skilled in the art without departing from the spirit and scope of my invention as defined in the appended claims.

In these drawings the numeral 2 designates a coupler head of the M. C. B. type and having the pivoted knuckle 3. The coupler illustrated in the drawing is of a well-known bottom-opening type, having a lock-lifting member 4, an actuating lever 5 therefor, and any suitable uncoupling rod connection with said lever, such as illustrated in dotted lines in Fig. 2. These parts, however, form no part of the present invention, and being well known in the art, need not be further described.

6 designates the supplemental or emergency coupling member or link. This mem-

ber has an angle arm 7 at its rear end, provided with an aperture to receive a pin 8 which pivotally connects said member to the guard arm 9 of the coupler, said guard arm being slotted as shown at 10 to receive said arm 7. The pin 8 extends obliquely rearwardly and downwardly for the purpose hereinafter described. At its central portion, the member or link 6 has a socket portion 11 which is adapted to fit closely around the convex nose end 3^a of the pivoted knuckle 3. This socket portion 11 is extended in a vertical direction, as will be seen by reference to Figs. 2 and 3 so as to afford a broad bearing surface against the rounded end and nose of the knuckle. Extending transversely across this socket is a rib or web 12 which gives additional strength to the member in pulling, the knuckle being slotted at 13 to receive this rib or web in a manner similar to the slotting of knuckles which was commonly employed when the old link and pin drawbars were in use. When the knuckle is in its locked position, as shown in Fig. 1, the supplemental or emergency coupling member or link is held rigidly by means of its socket engagement with the coupler and its pivotal connection to the guard arm, so that it becomes virtually a part of the coupler. The forward end of the member or link 6 is provided with a hook or other head portion 6^a, which is adapted to couple with the couplers of cars of other than the automatic type. When it is desired to remove the emergency member or link so as to give access to the coupler for automatic coupling, the coupler lock is released in the usual manner, thereby releasing the knuckle 3 and permitting the member 6 to be swung rearwardly about its pivot pin 8, into the position shown in dotted lines in Figs. 1 and 2. The rearward inclination of this pin, before referred to, causes the outer end of the member to rise and clear the coupler shank over which it passes. When it has been swung rearwardly as far as its shape will permit, a locking device 14 is swung forwardly in front of the notch 6^b, thereby holding said member securely out of the way until it is again required for use. In the particular form shown, the lock 14 consists of a strip of metal bent into triangular form and rotatably pivoted at 15 to a bracket 16 which is secured to the coupler shank.

The advantages of my invention will be readily understood, since it provides simple and practical means whereby street railway cars which are required to be coupled with cars having couplers of other than the automatic type may, nevertheless, be provided with automatic couplers and coupled with other cars having couplers of either type.

It will be readily understood that the form of the supplemental or emergency coupling member or link may be changed in various ways, and that it may be fitted and secured to the automatic coupler by different means than those shown.

15 What I claim is:—

1. In coupler mechanism, the combination with an automatic coupler having a pivoted knuckle, of a supplemental coupling member pivoted to the guard arm of the coupler head, and adapted to be swung backwardly over the shank of the coupler; substantially as described.

2. In coupler mechanism, the combination

with a coupler of the automatic type having a pivoted knuckle, of a supplemental coupling member pivoted to the guard arm of the automatic coupler and adapted to be swung backwardly over the shank of the coupler, the pivotal connection having a rearwardly and downwardly inclined axis; substantially as described.

3. In coupler mechanism, the combination with a coupler of the automatic type, of a supplemental coupling device pivoted thereto and adapted to be swung backwardly over the shank of the coupler when not in use, together with a locking device for retaining the supplemental member in such position; substantially as described.

In testimony whereof, I have hereunto set my hand.

ERNEST H. SCHMIDT.

Witnesses:

CHESTER K. BROOKS,
HARRY E. ORR.