

C. C. HOGEN.
COUPLING.

APPLICATION FILED AUG. 20, 1910.

Patented Dec. 19, 1911.

2 SHEETS-SHEET 1.

1,012,255.

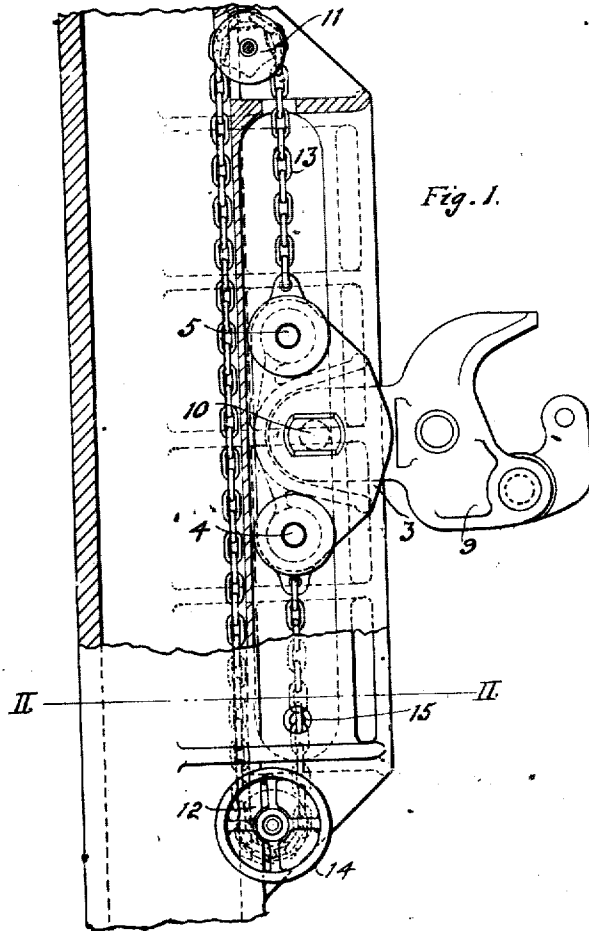
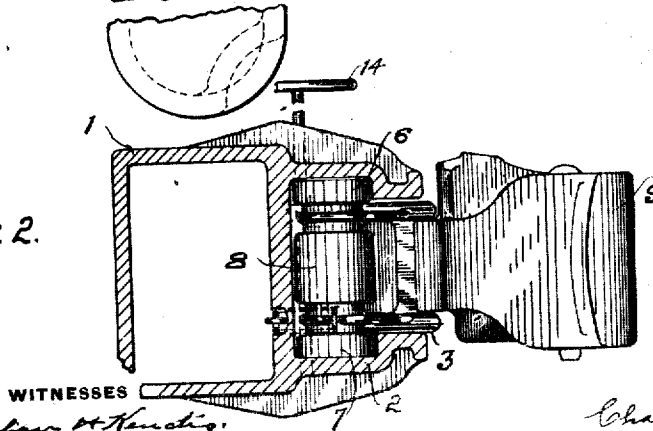


Fig. 1.

Fig. 2.



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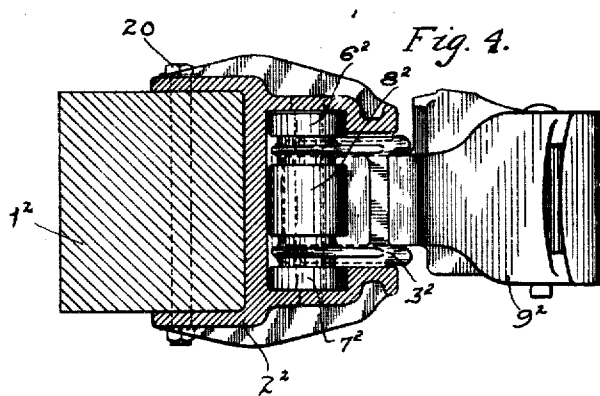
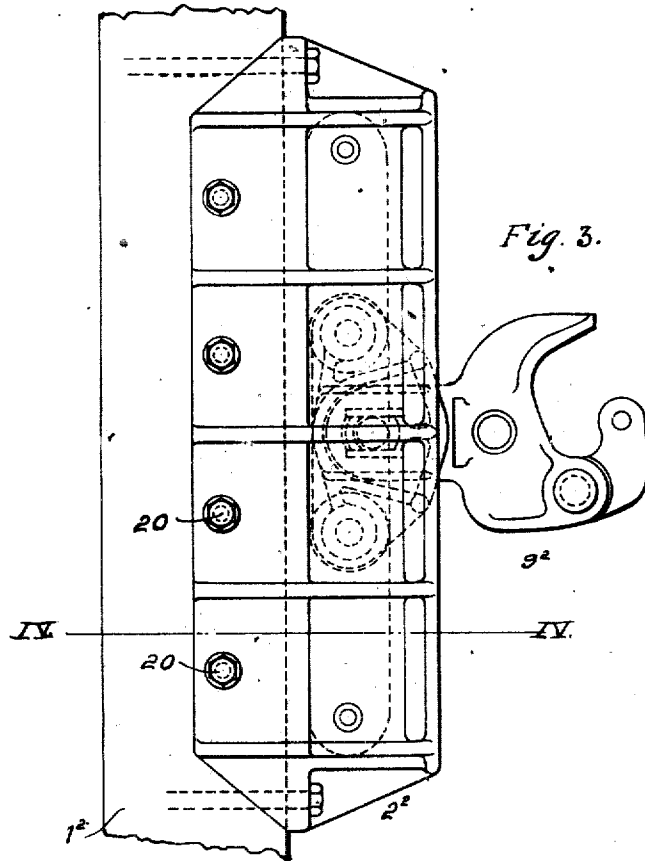
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2 SHEETS—SHEET 2.



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COUPLING.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, CHARLES C. HOGEN, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Couplers, of which the following is a specification.

The invention relates to couplers, and particularly to couplers for use with switch engines although capable of general application.

It has for its primary objects the provision of an improved construction wherein the range of movement of the coupler is increased to permit the use of the coupler on the sharp or reverse curves encountered in switching; the provision of a simple form of coupler applicable to any switch engine, and one in which the coupler head is very freely movable bodily in a lateral direction in addition to the usual oscillatory movement, the provision of improved means for securing the lateral movement of the coupler; and the provision of a superior form of roller support for the coupler readily assembled and securely housed and protected in the casting constituting the guide for the rollers employed.

Certain embodiments of the invention are illustrated in the accompanying drawings wherein.

Figure 1 is a plan view, partly in section, showing my improved coupler as applied to the pilot beam of a locomotive, Fig. 2 is a section on the line II—II of Fig. 1, Fig. 3 is a plan view of still another modified form of the invention, the pocket member carrying the coupler being separate from the pilot beam instead of integral therewith, and Fig. 4 is a section on the line IV—IV of Fig. 3.

As shown in Figs. 1 and 2 the pilot beam comprises a hollow casting 1 provided upon its front side with an integral socket or guide member 2; 3 is a carrier mounted for transverse movement in the slot at the front side of the guide member 2, which carrier is provided with a pair of bearing pins 4 and 5; 6, 7 and 8 are rollers or wheels mounted upon the said bearing pins; 9 is a coupler head, which may be of any approved type, pivoted to the carrier by means of the pin 10 and capable of limited oscillatory movement with respect to such carrier; 11 and 12 are sheaves or wheels mounted on the beam opposite the ends of the pocket; 13 is a chain secured at its ends to the opposite sides of the carrier and passing

around the sheaves 11 and 12 and through the hollow pilot beam; and 14 are hand wheels mounted upon the axles of the sheaves 11 and 12 whereby the carrier may be moved laterally in the guide member 2.

The pins 4 and 5 are removable vertically from the carrier 3, and in order to permit of such removal the upper wall of the pocket is provided near each end with a perforation 15. The bottom wall of the pocket is provided with smaller openings to permit the insertion of a punch to engage the lower ends of the pins 4 and 5 so that they may be shoved upward through the perforations 15 when the carrier is in proper position. The pulling strain upon the coupler is taken by the wheels or rollers 6 and 7, but in buffing the middle rollers 8 come into play, so that when the heavier strains are imposed upon the coupler all of the rollers resist such strains and the area to be sheared on the pins 4 and 5 is doubled. The use of the rollers is desirable as the tendency of the carrier to jam or stick is reduced, and the manipulation of the coupler is much easier than would be the case if an ordinary sliding contact were provided. It will be seen that by the use of the internal guide-way a very compact rigid structure is provided, and that the rollers, sheaves and chain are all incased and protected.

The construction shown in Figs. 3 and 4 differs primarily from that of Figs. 1 and 2 in that the pilot beam and guide member are separate, the guide member 2² being secured to the ordinary wood pilot beam 1² by means of the bolts 20. The coupler head 9², the carrier 3² and the wheels 6², 7² and 8² are all substantially the same as in the construction of Figs. 1 and 2. Any desired means for shifting the carrier transversely may be used, such as that shown in Fig. 1, in which case the chain would be between the casting and piston beam in a filler piece.

Having thus described my invention and illustrated its use, what I claim as new and desire to secure by Letters Patent is the following:—

1. In combination, a transverse pocket provided with a pair of over hanging opposing ledges at the front side of the pocket constituting a guideway, a carrier mounted on the guideway, a transverse pin mounted in the carrier, a pair of rollers on the ends of the pin engaging such ledges and the rear side of the pocket, a roller on the pin inter-

mediate the said rollers for engaging the rear side of the pocket and taking the buffing strains, and a coupler member secured to the carrier.

5 2. In combination, a transverse pocket provided with a pair of over hanging opposing ledges at the front side of the pocket constituting a guideway, a carrier mounted in the guideway, a pair of transverse pins
10 mounted in the carrier, a pair of rollers on the opposite ends of each of the pins engaging such ledges and the rear side of the pocket, a roller on each pin intermediate the said rollers for engaging the rear side of the
15 pocket and taking the buffing strains, and a coupler member secured to the carrier.

3. In combination, a member provided with a pocket slotted at its front side, a carrier mounted in the slot provided with a vertically removable bearing pin, rollers mounted rotatably and removably on the pin, and a coupler head pivoted to the carrier, the said pocket being provided in its upper wall with a perforation to permit of the removal
25 of the said bearing pin.

4. In combination, a casting comprising a hollow pilot beam provided at its front side with a pocket, slotted at its front side and ends, integral with the said beam, a carrier
30 mounted in the slot in the pocket, wheels

mounted opposite the end slots, a flexible operating member lying in the pocket and secured to the opposite ends of the carrier in the pocket, and extending through the end slots in the pocket and around the said
35 wheels and through the beam behind the pocket, a coupler head secured to the said carrier, and operating means for rotating one of the said wheels to secure a lateral
40 movement of the carrier.

5. In combination, a pilot beam, a pocket member at the front thereof provided with front and end slots, a carrier mounted in the front slot, wheels mounted opposite the slots
45 in the ends of the pocket, a flexible operating member lying in the pocket and secured to the opposite ends of the carrier in the pocket and extending through the end slots in the pocket and around the said wheels
50 and back of the pocket, a coupler head secured to the carrier, and operating means for rotating one of the said wheels to secure a lateral movement of the carrier.

In testimony whereof I have hereunto
55 signed my name in the presence of the two subscribed witnesses.

CHARLES C. HOGEN.

Witnesses:

J. A. SIMS,

W. M. M. FAIST.