

(No Model.)

2 Sheets—Sheet 1.

W. V. WOLCOTT & H. O'HARA.
CAR COUPLING.

No. 519,216.

Patented May 1, 1894.

Fig. I.

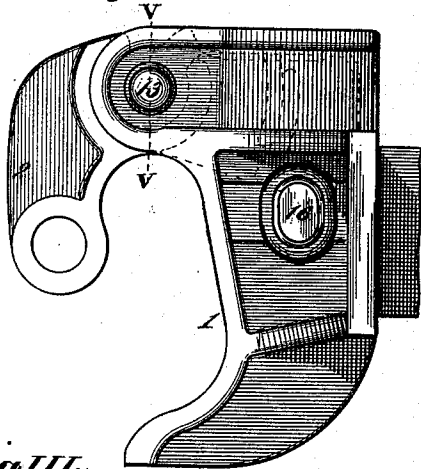


Fig. II.

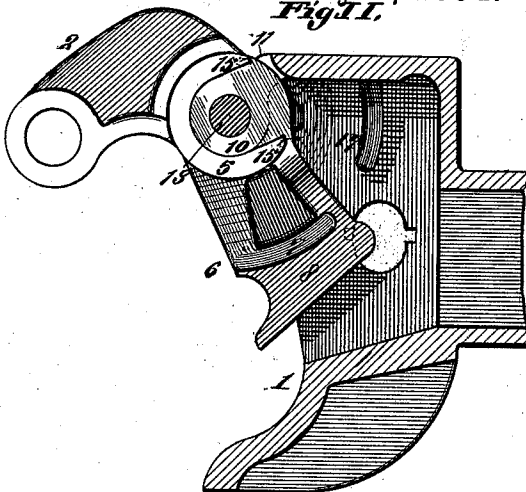


Fig. III.

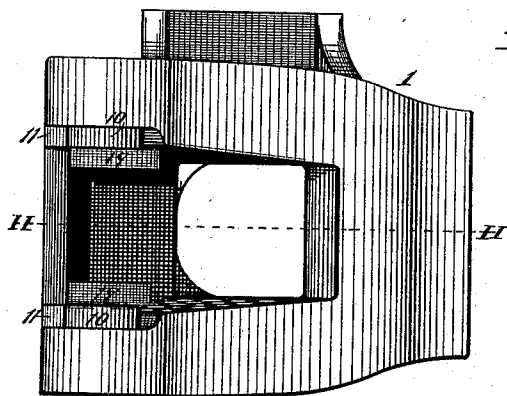


Fig. IV.

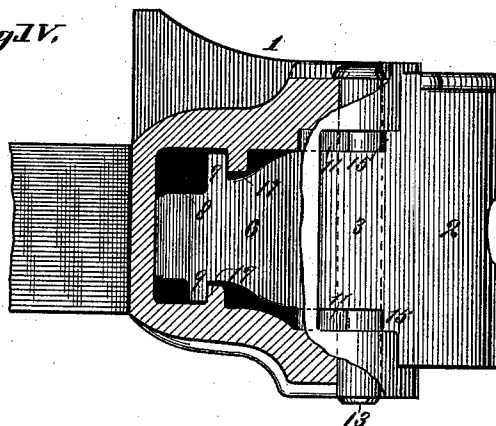


Fig. V.

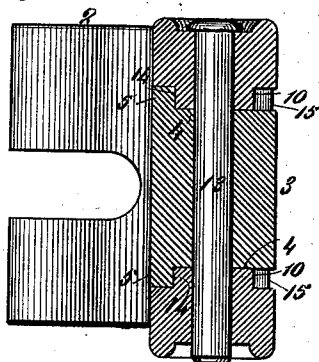


Fig. VI.

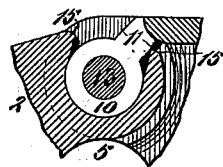
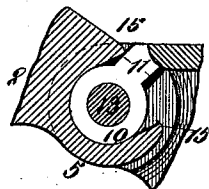


Fig. VII.



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Fig. VIII.

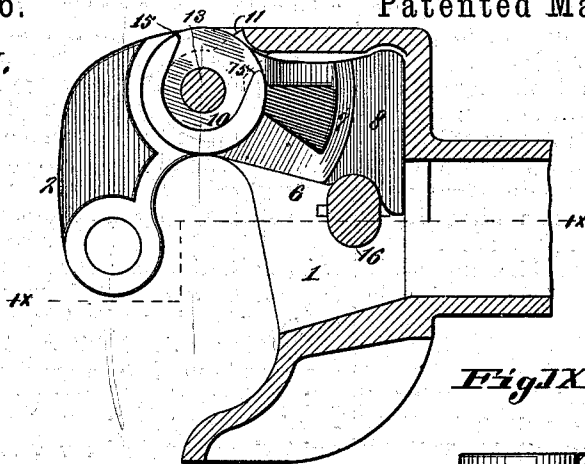


Fig. IX.

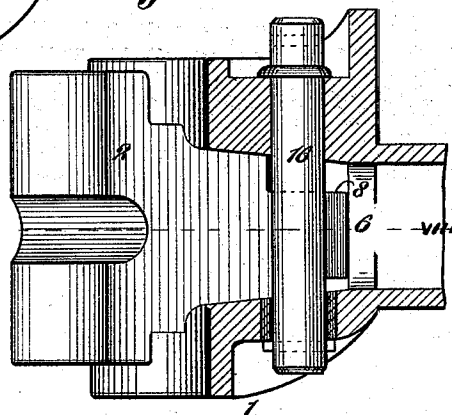


Fig. X.

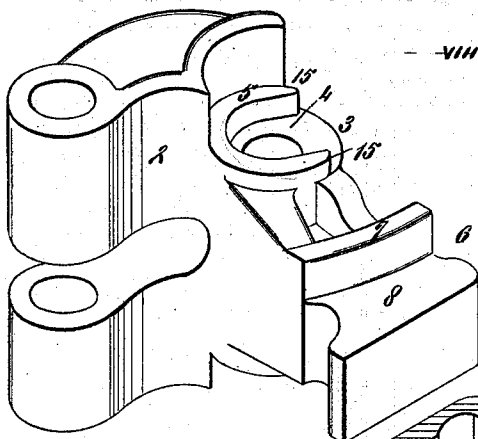
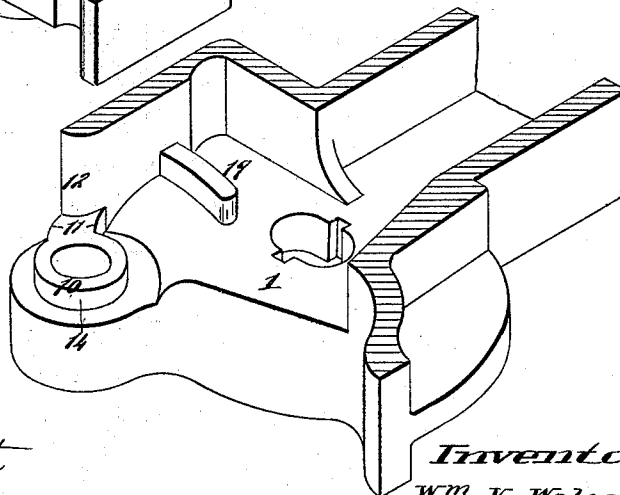


Fig. XI.



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UNITED STATES PATENT OFFICE.

WILLIAM V. WOLCOTT AND HENRY O'HARA, OF ST. LOUIS, MISSOURI, ASSIGNORS TO THE ST. LOUIS CAR COUPLER COMPANY, OF ILLINOIS.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 519,216, dated May 1, 1894.

Application filed November 10, 1890. Serial No. 370,838. (No model.)

To all whom it may concern:

Be it known that we, WILLIAM V. WOLCOTT and HENRY O'HARA, both of the city of St. Louis, in the State of Missouri, have invented a certain new and useful Improvement in Car-Couplers, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

Our invention relates to certain improvements in automatic car couplers, of the class shown, described and claimed in the patent issued to the Keystone Car Coupler Company, dated November 19, 1889, No. 415,309, and the reissue patent to Lorraine and Aubin, No. 10,941, dated June 26, 1888.

Our invention consists in features of novelty hereinafter fully described and pointed out in the claims.

Figure I is a plan view of one of the draw-heads, showing the hook in its closed or using position. Fig. II is a horizontal section, taken on line II—II, Fig. III, and showing the hook in its open position. Fig. III is an end view of one of the draw-heads, with the coupling hook removed, and showing the trunnion bearings and abutment; also the ledges inside of the draw-head near the front end. Fig. IV is a side view, part in section, showing the position of the hook when locked in the draw-head, also the position of the pin extending down through the perforated trunnions, also the perforation in the coupling hook, also the rib on the upper side of the inner arm that guides the locking pin, also the ledges in the draw-head, and also the rib on the lower side of the inner arm of the coupling hook. Fig. V is a vertical section, taken on line V—V, Fig. I, and showing the position of the pin in the perforated trunnion bearings, and also the hook and position of the trunnion bearing in the perforated recess coupling hook. Fig. VI is a detail section, showing the abutment and coupling hook when closed and locked, ready for transit. Fig. VII is a similar view, showing the coupling hook when in its opened position. Fig. VIII is a section taken on line VIII—VIII, Fig. IX, showing the hook in top view and in its locked position, and showing its relation and bearings on the perforated trun-

nion. Fig. IX is a section taken on line IX—IX, Fig. VIII and showing the position of the inner arm of the hook with relation to the locking pin. Fig. X is a perspective view of the hook removed from the draw-head. Fig. XI is a perspective view of the lower half of one of the drawheads.

Referring to the drawings, 1 represents one of the draw-heads, and 2 one of the hooks of an automatic car coupler, intended to connect with a draw-head and hook correspondingly formed. The hook has a perforated hub 3 having a recess 4 at each end, forming flanges 5.

6 represents the inner arm of the hook having an upper rib 7, beyond which is a table portion 8 on which the lower end of the locking pin rides as the hook is opened and closed, and a lower rib 9.

The draw-head is provided with perforated trunnion bearings 10 between which the hub 3 fits, as shown clearly in Fig. V, and 11 represents abutments extending from the trunnion bearings to the vertical wall 12 of the draw-head, (see Fig. XI.) When the hook is in place a pin 13 is passed through the perforated hub and trunnion bearings, and the flanges 5 fit against the vertical faces 14 of the trunnion bearings and limit the opening and closing movement of the hook by their ends 15 impinging, respectively, against the inner and outer vertical faces of the abutments 11, see Figs. VI and VII. These flanges fitting against the trunnion bearings, take all strain off the pin 13 when the hook is in its closed or using position, as will be clearly seen in Figs. VI and VIII, and they also serve as an additional bearing surface between the hook and draw head, at the pivotal point, avoiding wear and a looseness at this point. As the hook is opened and closed, the lower end of the locking pin 16 rides on the table portion 8 of the inner arm of the hook, and is guided or held in an upright position by bearing against the vertical wall of the rib 7, and when the hook has reached the limit of its closing movement, the pin falls to its seat, as shown in Figs. IV and IX, and locks the hook. As the hook opens and closes the outer vertical walls of the ribs 7 and 9 bear against the inner vertical walls of

ledges 17 in the draw-head, which assists in the guiding of the hook, and, when the hook is in use, affords strength and rigidity to the parts.

5 We claim as our invention—

1. In a car coupler, the combination of a coupling hook, and a draw-head provided with perforated trunnion bearings reinforced by an abutment extending from the perpendicular wall of the drawhead to the trunnion bearing; and in combination therewith, of a
10 common gravity vertical moving locking pin, resting upon the inner arm of the hook, when open, and riding on said inner arm when the
15 hook is being closed.

2. In a car coupler, the combination of a coupling hook provided with a perforated and recessed hub and ribs on its inner arm, and a drawhead provided with perforated
20 trunnion bearings connected by abutments extending to the perpendicular wall of the drawhead, ledges in the throat of the drawhead, and a gravity vertical moving locking

pin, resting upon the inner arm of the coupling hook when open, and riding upon said arm when the hook is closing.

3. In a car coupler, the combination of a coupling hook, provided with a perforated recessed hub, ribs on the inner arm of the hook, and a drawhead provided with perforated trunnion bearings connected by abutments to the perpendicular wall of the drawhead, ledges in the throat of the drawhead, a pin passing through the perforation in the trunnion bearings, and a perforation in the coupling hook hub, and a gravity vertical moving locking pin resting entirely upon the inner arm of the coupling hook when open, and riding on said arm when the hook is being closed.

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HENRY O'HARA.

In presence of—

E. S. KNIGHT,
A. M. EBERSOLE.