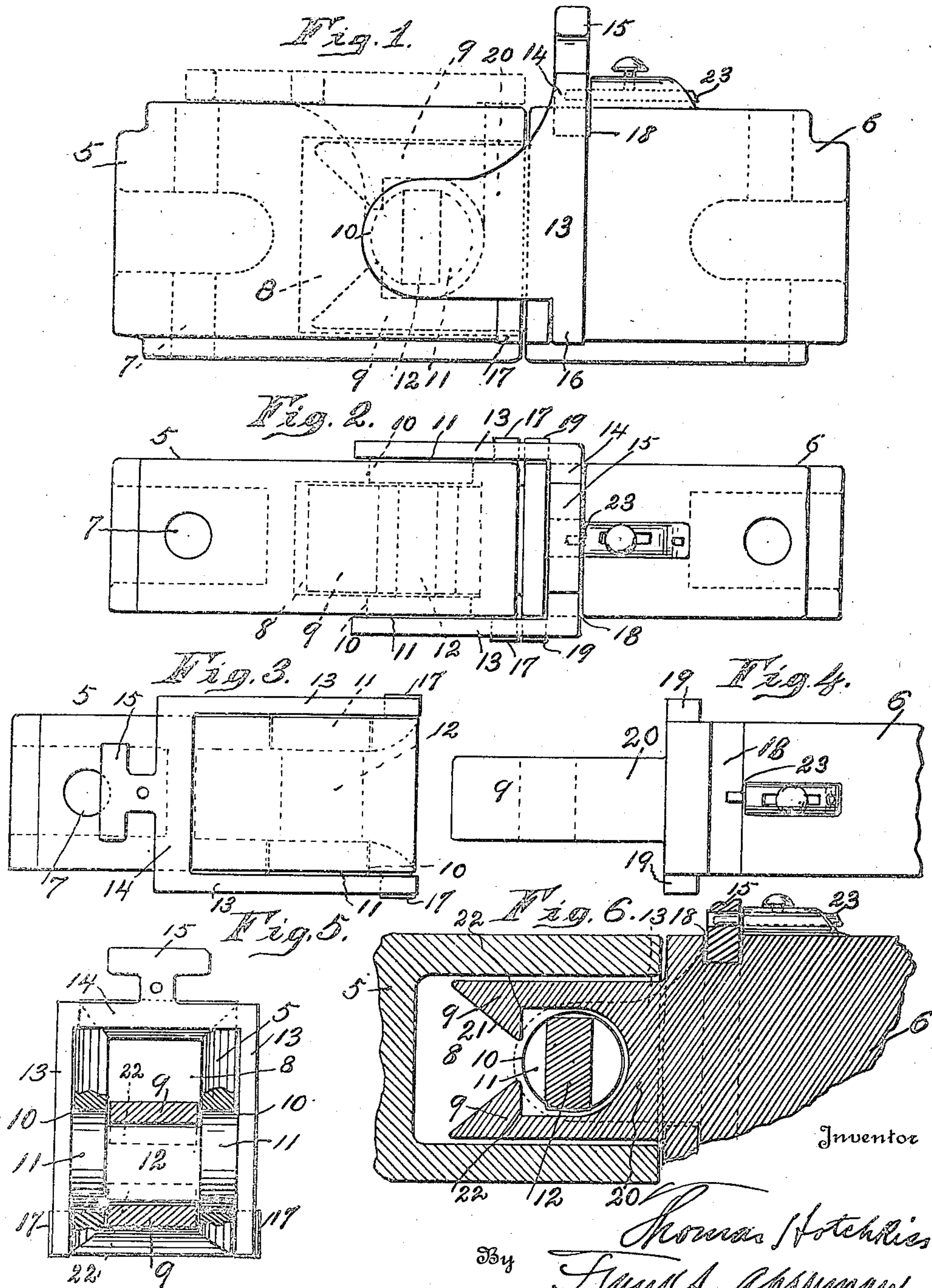


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T. HOTCHKISS.  
CAR COUPLING.  
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# UNITED STATES PATENT OFFICE.

THOMAS HOTCHKISS, OF CLINTON, INDIANA.

## CAR COUPLING.

Application filed March 19, 1920. Serial No. 367,185.

*To all whom it may concern:*

Be it known that I, THOMAS HOTCHKISS, a citizen of the United States of America, and resident of Clinton, in the county of Vermilion and State of Indiana, have invented certain new and useful Improvements in Car Couplings, of which the following is a specification.

This invention relates to couplings, and more particularly to couplings employed for coupling adjacent cars of a train.

The primary object of the invention is to provide a device of this character having means to insure against the sections of the coupler becoming accidentally disengaged, when the same have been locked together.

With the foregoing and other objects in view, the invention consists in the details of construction and in the arrangement and combination of parts to be hereinafter more fully set forth and claimed.

Referring to the drawings—

Figure 1 is a side elevation of a coupler constructed to accord with my invention.

Figure 2 is a plan view.

Figures 3 and 4 are plan views which illustrate the coupling members separated.

Figure 5 is a front elevation partly in section, and

Figure 6 is a fragmentary vertical section illustrating the members of the coupling connected.

Referring to the drawings, the coupler includes two complementary members or drawheads 5 and 6 which are each provided with openings 7, for the reception of pins or bolts and with recesses which are intersected by the openings, and in such respect the members 5 and 6 are similar.

The member 5, is formed to provide an open ended recess 8 of rectangular formation which is adapted to receive the spaced jaws 9 of the complementary drawhead 6, and the side walls of the member or drawhead 5 have formed therethrough circular openings 10, for the reception of circular portions 11 carried by and rigidly attached to a yoke, the circular portions 11 being fixedly attached to a rectangular cross piece 12 and to the side members 13 of the yoke to maintain said yoke in swinging engagement with the drawhead or member 5.

The yoke which is maintained in swinging engagement with the drawhead 5, may be considered as an integral structure when assembled, and comprises the circular bear-

ings or connecting means for connecting the yoke with the member 5, the bearings being connected with the cross piece 12 and with the side members 13 which overlie a portion of the sides of the member 5, the side members 13 having a straight edge which extends to a depending portion 16, and the sides curve upward and are connected opposite the projecting portion by a cross bar 14, which may be centrally provided with an extension 15, having therein a recess or opening for the reception of one end of a bolt. The member 5 is provided with blocks or outward projecting portions 17 located on opposite sides thereof and positioned to maintain the yoke against movement beneath said member, and as shown by dotted lines on Fig. 1, the yoke may be positioned when in non-operative position so as to rest upon the upper surface of the member 5, and when in such position the cross piece 12 will be in parallel relation to the upper and lower walls of the member 5, so that the fixed or non-movable jaws 9 may pass beyond the cross piece.

The member or complementary drawhead 6 is exteriorly provided in its upper surface with a transverse recess 18 that is positioned to receive the cross bar 14 of the yoke, and it is provided with a bolt 23 which when projected engages or enters the recess or aperture formed in the head 15. The member or drawhead 6 is provided with blocks 19 which project therefrom and are positioned to be engaged by the projecting portions of the side pieces of the yoke, when the transverse bar 14 lies in the recess 18. The yoke which is in swinging engagement with the drawhead 5 when positioned to engage the drawhead 6 connects the drawheads and holds the same in fixed engagement the yoke being held in locked position by the bolt.

In order to hold the members 5 and 6 in alinement the member 6 has formed therewith a forwardly projecting portion 20, the same being shaped to provide rigid jaws 9 that have inclined faces 21 and shoulders 22. The jaws 9, are so spaced as to admit between them the cross piece 12 when the yoke is in non-operative position, and when such yoke is in operative position the shoulders will be in line with end portions of the cross bar and such structure will serve as an emergency coupling in case of breakage of the yoke.



This device though designated as a car coupling may be used for other purpose, for instance as a coupling for connecting tractors to wagons or agricultural or other machines.

I claim:

1. A coupler comprising a section having an openended recess, a yoke having side pieces, a cross bar fixedly attached to the side pieces, and intersecting the recess and in movable engagement with the section, a second cross bar which connects the side pieces of the yoke and is adapted to be moved in the arc of a circle; a complementary section having a pair of fixed jaws which are adapted to enter the recess and be positioned beyond the cross bar that intersects the recess in the first mentioned section, and a transverse recess in the complementary section in which the second cross bar is adapted to be seated.

2. A coupling comprising a section having an openended recess, and apertures through opposite side walls of said section, a yoke maintained in swinging engagement with said section and comprising side pieces which are connected by cross bars, one of the cross bars intersecting the openended recess and the other cross bar movable in the arc of a circle, for use with another section having projecting members which are spaced to admit between them the cross bar that intersects the openended recess, a trans-

verse recess for the reception of the other cross bar of the yoke, and projections with which extensions of the side pieces of the yoke engage.

3. A coupling comprising a member having an openended recess, circular openings through the walls of said member projections positioned adjacent to the lower and forward portions of the sides of said member, a yoke having inward extending circular portions seated in the aforesaid circular openings, a cross piece between and connecting the circular portions with said member, a cross bar which connects the side pieces of the yoke, such cross bar being positioned to be located beyond the forward end of the drawhead to which the yoke is pivoted, projections integral with the side pieces of the yoke extending beyond the major portion of the side pieces, in combination with a second member having a transverse recess in its upper portion located rearward of its forward end and adapted to receive the cross bar of the yoke, projections positioned to be engaged by projections of said side pieces, and forwardly extending members being adapted to enter recess of the complementary drawhead which carries the yoke said members having beveled ends spaced to admit between them the cross bar which traverses the recess.

THOMAS HOTCHKISS.