

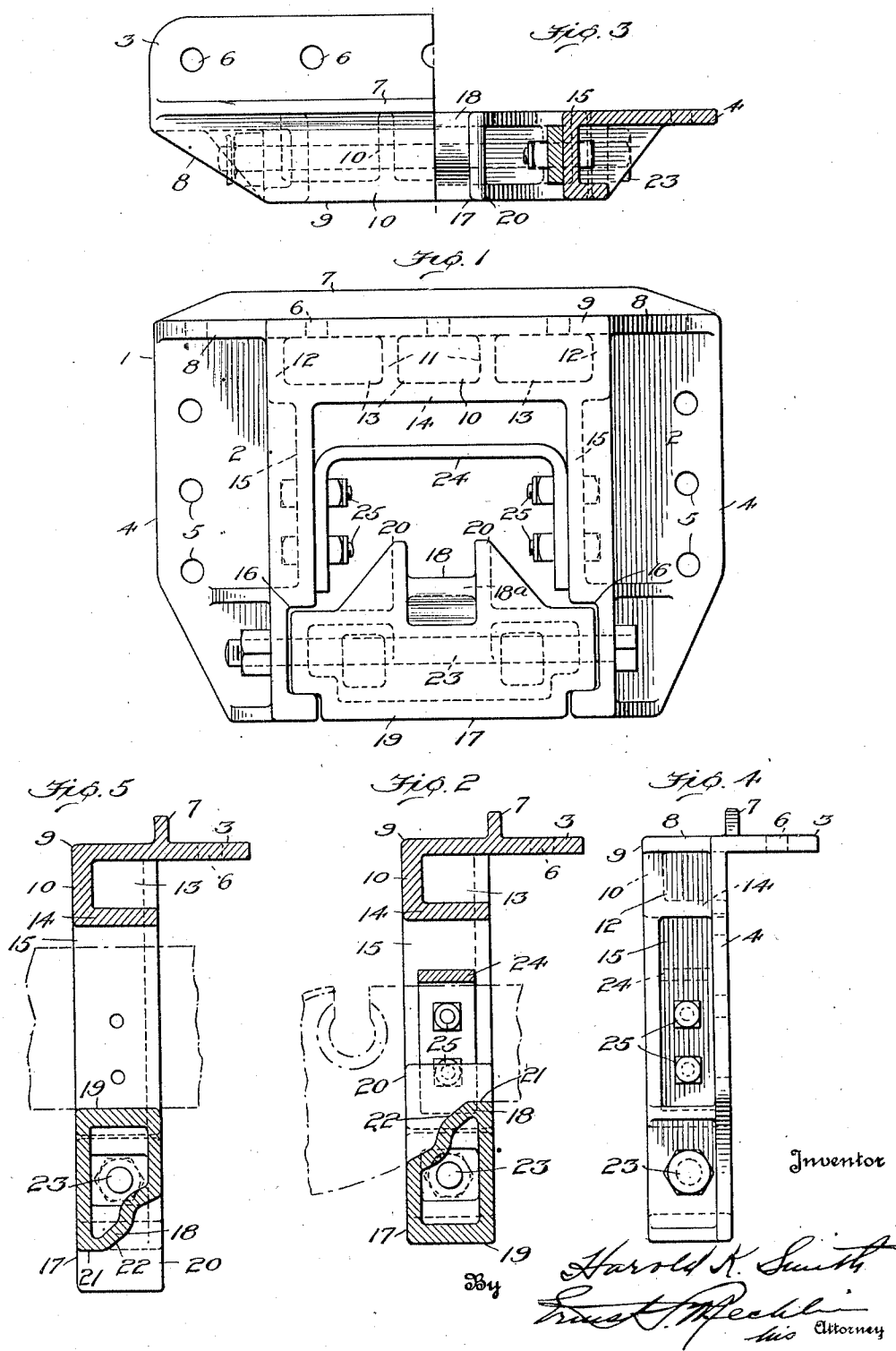
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COMBINED STRIKING CASTING AND CARRY IRON

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COMBINED STRIKING CASTING AND CARRY IRON.

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The invention relates to railway cars, and more particularly to a combined striking casting and coupler carry-iron by which the coupler is supported and guided in its movement, and through which the blows from the coupler horn are transmitted to the end sill and from the latter to the center sills.

The principal object of my invention, generally considered, is to provide a striking casting and carry-iron so arranged that they are adapted to cooperate with an automatic coupler of the A. R. A. type or with the hook and link type of coupler now in use on many of the foreign railways.

Still another object of the invention is to provide an integral striking casting and coupler carry-iron support and to combine therewith a reversible carry-iron, the reversible carry-iron being adapted to be assembled in either of two positions so as to adapt the construction for use with an automatic or link type of coupler.

Still another object of the invention is to provide a striking casting with a detachable supplemental guiding member which may be used in combination with a carry-iron of the hook type of coupler to prevent the hook coupler from being elevated out of its proper position.

There are other objects of the invention as will appear from the more detailed description of same, particularly taken in connection with the accompanying drawing wherein I have illustrated a single embodiment of the invention.

In the drawings:

Figure 1 is a view in front elevation of an embodiment of my invention showing the same adapted for use with the hook type of coupler,

Figure 2 is a vertical cross sectional view of the construction shown in Figure 1, showing in dotted lines a hook type of coupler in position,

Figure 3 is a view partially in plan and partially in section of the construction shown in Figure 1,

Figure 4 is a view in side elevation of the construction shown in Figure 1, and

Figure 5 is a fragmentary view showing the carry-iron reversed and illustrating in dotted lines the shank of an automatic coupler.

Throughout the specification and draw-

ings like parts are designated by like reference characters.

The numeral 1 designates, generally, a striking casting, the web 2 of which is preferably of angular formation having a flange 3 which is adapted to overlie the upper surface or flange of the end sill (not shown) and a flange 4 arranged at right angles to the flange 3 and adapted to overlie the web of the adjacent end sill to which it may be secured by means of a plurality of rivets passing through the rivet openings 5 in the flange 4 and 6 in the flange 3. The flange 3 may be reinforced by an upright web 7 which preferably extends from side to side of this flange. Arranged in alignment with the flange 3, there is provided on the exterior face of the flange 4 a web 8 which projects outwardly and forms at its central portion the upper edge of the striking portion 9 of the casting. Depending from the edge of the web 8 is a vertical web 10 which is reinforced by a plurality of upright rearwardly extending webs 11 and 12 spaced at substantially uniform distances apart and forming rearwardly opening pockets 13. The web 10, the ribs 11 and 12 and the web 14 form a rigid striking portion which is adapted to receive the blows from the horn of the coupler, illustrated in dotted lines, without deformation and to limit the inward movement of the coupler to prevent injury to the cushioning mechanism and to the car underframing.

Depending from the web 14 and connected at their inner edges to the web 4 are a plurality of upright webs or flanges 15 which form, in conjunction with the web 14, the opening for the reception of the shank of either type of coupler. Adjacent their lower ends, the webs or flanges 15 are provided with offset portions 16, the width of the offset being equal to the width of the adjacent portions of the carry-iron, designated generally by the reference character 17.

The carry-iron is preferably in the form of a casting having on the opposite faces coupler guiding surfaces 18 and 19. The surface 19 is continuous and flat and is adapted, when the carry-iron is assembled with this face uppermost, to close the bottom of the opening formed by the flanges 14 and 15 and to provide a substantially rectangular

lar opening for the reception of the rectangular shank of an automatic coupler. As illustrated in the drawings, the carry-iron is provided with a guiding face 18 which is preferably formed by providing a web 18^a connecting at points intermediate their ends vertical webs 20, the latter projecting upwardly from the adjacent face of the carry-iron. The exterior surface 18 is formed with a flat guiding portion 21 and with a curved portion 22, the contour of which corresponds to the contour of the adjacent surface of the coupler hook.

It will be, of course, understood by those skilled in the art that the coupler hook is only adapted for movement in one direction from normal, that is, the buffing shocks of the cars equipped with the hook and link couplers are taken by the side buffers, while in the case of the automatic coupler the side buffers are omitted and the buffing shocks transmitted to the coupler and from the latter to the cushioning mechanism. With this understanding, it will be evident that by providing the curved contour 22 on the carry-iron 17 that this curved contour in no way affects the operation of the coupler hook.

The carry-iron is preferably provided with a longitudinally extending opening through which and through corresponding openings in the webs 15 the transverse bolt 23, for maintaining the carry-iron in assembled position, may be inserted.

As the shank of the hook coupler is much smaller in cross section than the shank of the automatic coupler, it is desirable when the carry-iron is assembled, as shown in the drawing, to provide an upper guiding member to prevent the coupler hook from rising. This may be accomplished by providing a U or channel shaped member 24 which is adapted to fit within the opening in the striking casting and to be detachably secured to the webs 15 by a plurality of bolts 25. The horizontal portion of the member 24 is adapted to overlie the shank of the hook and forms, in connection with the vertical webs 20, means for preventing the hook from moving out of its proper assembled position.

Having now described my invention, what I claim is:

1. The combination with a striking casting, of a reversible carry-iron therefor, said carry-iron having the opposite faces thereof with different contours to adapt it for cooperation with different types of couplers, and means for removably connecting said carry-iron to said casting, the said opposite faces of the carry-iron having portions adapted to have sliding engagement with the respective shanks of the couplers, corresponding parts of said portions being substantially equidistant from said connecting means.

2. The combination with a striking casting and a reversible carry-iron therefor, means formed on said striking casting for supporting said carry-iron, the carry-iron having one face flat and the opposite face curved to adapt it for cooperation with different types of coupler shanks, the curved face merging into a substantially flat portion, and removable means for connecting the carry-iron to said casting, corresponding portions of the flat face and the flat portion of the curved face being substantially equidistant from the said removable connecting means.

3. The combination with a striking casting, of a carry-iron supported thereby, said carry-iron having one flat face adapted to cooperate with and support an automatic coupler and having the opposite face provided with means for guiding and supporting the hook type of coupler, and a bolt for removably connecting said carry-iron to said casting, the said opposite faces of the carry-iron being arranged with respect to said bolt so as to supportingly engage each coupler in substantially the same plane.

4. In combination, a striking casting, a removable carry-iron therefor, said carry-iron having opposite faces thereof formed with different contours to adapt it for supporting cooperation with a plurality of couplers of different types, means for detachably connecting said carry-iron to said casting, the said opposite faces of the carry-iron having portions adapted to have sliding engagement with the shanks of the respective couplers, corresponding parts of said portions being substantially equidistant from said connecting means, and a member adapted for connection with the striking casting over the carry-iron for holding one of said couplers in place.

5. In combination, a striking casting, a removable carry-iron therefor, means provided on said striking casting for supporting said carry-iron, said carry-iron having one face flat and having its opposite face fashioned with a curved portion and a flat portion to adapt it, upon reversal, for cooperation with different types of coupler shanks, means for detachably connecting said carry-iron to said casting, and a U-shaped member adapted to connection to said striking casting above said carry-iron only when the face of the carry-iron having curved and flat portions is in operative cooperation with a coupler shank, the intermediate portion of said member normally overlying the shank of an associated coupler and limiting the upward movement thereof.

6. In combination, a striking casting, a carry-iron normally supported thereby, said carry-iron having one flat face adapted to cooperate with and support an automatic coupler and having the opposite face curved

and provided with means for guiding and supporting a coupler of the hook type, a bolt normally extending transversely between depending portions of the striking casting for
5 connecting said carry-iron thereto corresponding portions of the said opposite faces of the carry-iron being equidistant from the said bolt to supportingly engage each coupler in substantially the same plane, and
10 a coupler retaining device formed with depending portions normally connected to the depending portions of the striking casting and with an intermediate normally horizontal portion adapted to overlie an associated coupler of the hook type and prevent
15 said coupler from moving out of its proper assembled position.

In testimony whereof I affix my signature.

HAROLD K. SMITH.