

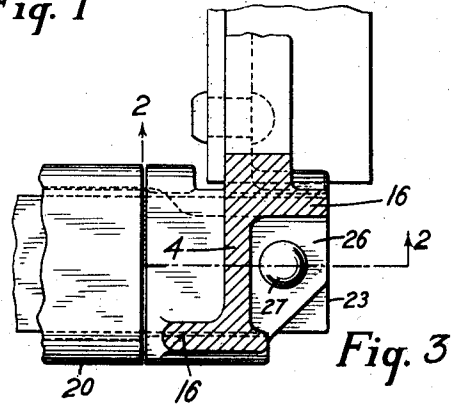
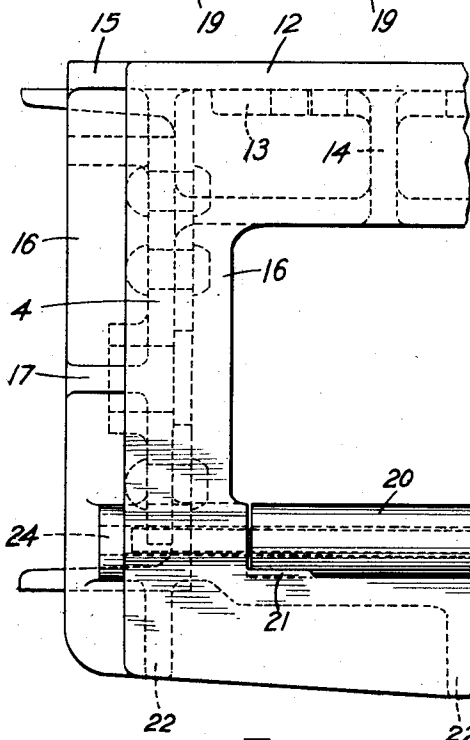
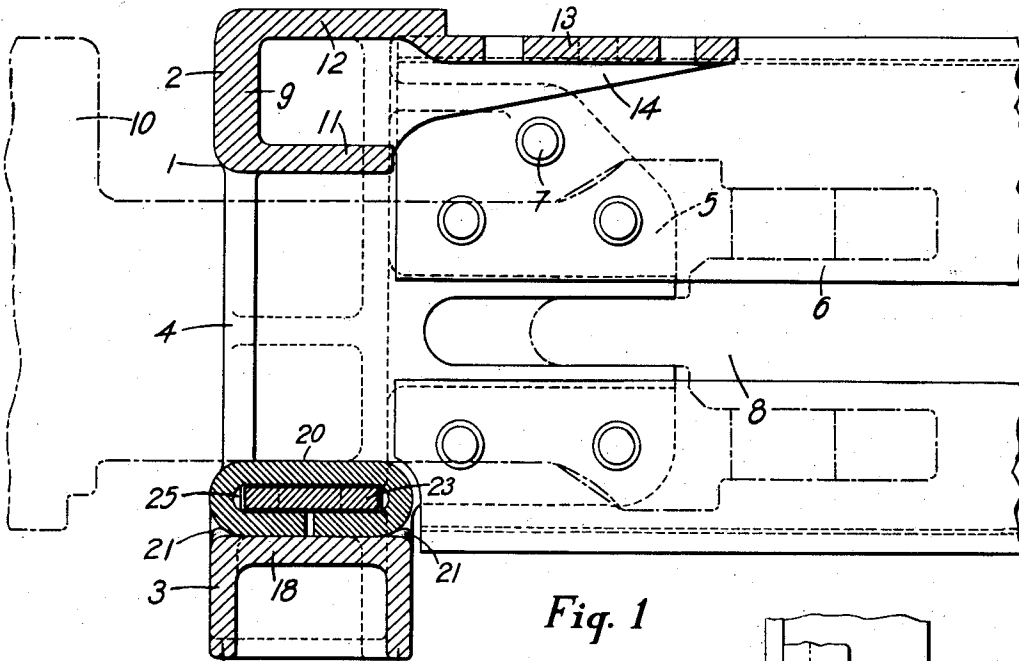
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STRIKING CASTING

Filed Nov. 15, 1927



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STRIKING CASTING

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Serial No. 233,449

5 Claims. (Cl. 213—60)

This invention relates to a combined casting used in connection with draft rigging for railway rolling stock and more particularly to such castings adapted to function as striking castings and sill tie members and receive replaceable wear or carrier blocks on said tie members.

The principal object of my invention, generally considered, is to provide a combined casting which is formed with portions serving, respectively, as a striking casting or coupler stop member and a sill tie member or coupler carrier, said latter member serving to support a removable wear member which is preferably retained in place by a flat key extending entirely there-through with the ends received in corresponding pockets or apertures in the sides of the casting.

An object of my invention is to provide a combined casting formed with striking and carrier iron portions, said portions being connected by the integral sides of the casting and a removable wear member supported on said carrier iron portion and adapted to receive a retainer which passes therethrough with the ends held in corresponding apertures in the sides of the combined casting.

Another object of my invention is to provide a combined casting adapted for connection with the underframe of a car and formed with coupler striking and sill tie portions, said sill tie portions being connected to the striking portion by sides of the casting, which sides are preferably extended rearwardly to provide for connection with the sills of an associated car and form the forward portions of cheek plates, said carrier being formed on its upper face adjacent the ends thereof with bosses at the edges giving a substantially concave effect upwardly for more securely holding an associated wear plate thereon, said wear plate normally resting on the upper surface of said carrier and locked in place by a retainer passing therethrough.

A further object of my invention is the provision of a combined casting adapted for connection with the center sills of a car and formed with a striking portion and sill tie member, said members being connected at their respective ends by side portions which are provided with apertures adjacent the sill tie member, a removable wear plate resting on said sill tie member, a key extending entirely therethrough and received in the apertures in the sides of the casting and rivet means extending through one end of said key and adjacent flanges on the combined casting for locking said key in place.

A still further object of my invention is the pro-

vision of a novel and simple form of removable wear member for coupler carrier irons, said wear member being formed as a flat plate bent upon itself to leave just enough room to receive a flat retainer or key therein, the ends of said retainer being receiveable in the sides of the associated carrier.

Other objects and advantages of the invention relating to the particular arrangement and construction of the various parts will become apparent as the description proceeds.

Referring to the drawing illustrating my invention, the scope whereof is defined by the appended claims:

Figure 1 is a central longitudinal sectional view of a combined casting embodying my invention, said casting being shown connected to center sills and an associated coupler being diagrammatically illustrated in normal position.

Figure 2 is a fragmentary end elevation of my combined casting, shown partly in vertical section on line 2—2 of Figure 3, looking in the direction of the arrows.

Figure 3 is a fragmentary horizontal section on the line 3—3 of Figure 2, looking in the direction of the arrows.

Referring to the drawing in detail, like parts being designated by like reference characters, there is shown a combined casting 1 formed with a coupler striking or stop portion 2, a coupler carrier portion or sill tie member 3 and substantially upright connecting web portions 4 formed with rearwardly extending ears or flange portions 5, which in the embodiment shown are connected to associated center sills 6 by a plurality of rivets 7. In the present instance, the sills are slotted to the ends as indicated at 8 and the rearwardly extending portions 5 of the combined casting are adapted to function as the forward portions of cheek plates, that is, they are adapted to reinforce the slotted portions of the sills which receive a usual form of draft key (not shown) as will be understood.

The striking casting portion 2 of the combined casting 1 is preferably formed with an upright web portion 9 adapted for engagement with the horn of the coupler 10, illustrated diagrammatically by dot and dash lines, upon sufficient rearward movement thereof, and a lower inwardly extending end portion 11 overlying the shank of said coupler.

Extending from the upper edge of the web portion 9, continued rearwardly and adapted to extend beneath the sill cover plate (not shown) and end sill (not shown) is a shelf or web por-

tion 12. The rearward portion of said shelf may be downwardly offset if desired, as indicated at 13 whereby the cover plate may be connected with the portion 13 and not extend above the forward portion of the shelf 12.

For bracing the web portions 9, 11, 12 and 13 together, longitudinally extending web portions 14 are preferably provided which gradually taper from the rear edge of the web 11 and finally merge into the web 12 or downwardly offset portion 13 thereof. Said web 12 at the front of the center sills 6 preferably extends transversely beyond said center sills and the overhanging portions 15 are preferably braced with respect to the web portions 4 by means of transversely extending substantially vertical web or flange portions 16, which preferably extend substantially the full height of the combined casting. These webs or flanges 16 are in turn braced to the web portions 4 by means of web or gusset portions 17 and the corresponding portions of the web 12.

Between the center sills and rearwardly of the ends thereof that portion 13 of the web 12 is formed narrower than the remainder of said web, as shown most clearly in Fig. 2, so as to extend between the sills 6 without intersecting the same and is preferably positioned so that the top is substantially flush with the tops of the sills. Such a construction makes it possible to rigidly connect the end sill and center sills while providing for the secure connection between the combined casting 1 and the cover plate and center sills. The narrow portion 13 is preferably extended for a substantial distance to underlie the end sill and, as will be apparent from consideration of Figure 1 particularly, it preferably extends beyond the ears or bifurcated web portions 5 of the casting.

The coupler carrier iron or sill tie member 3 of the combined casting is preferably formed substantially inverted U-shape in cross section with a web 18 and depending flanges 19 on opposite sides thereof. Said web is preferably substantially horizontal between the sides of the casting for supporting an associated wear member 20 and is preferably flat on its upper surface along the intermediate portion thereof with the end portions concave upwardly or provided with lugs or bosses 21 adapted to extend on either side of and partially embrace the removable wear member 20, thereby assisting to retain the same in place. The flanges 19 are braced, one to another, by longitudinally extending webs 22.

The wear member 20 is preferably formed hollow and elongated in section and is adapted to snugly fit between the sides of the combined casting when resting on the web 18 of the sill tie member. Said wear member may be conveniently formed by bending a flat plate around a flat key or other forming means of the proper size to leave an aperture therethrough adapted to receive a retaining member or key 23. The edges of the member 20 are preferably positioned at the bottom so as to provide a smooth top surface upon which the stem of the coupler 10 directly rests.

Although I have described my wear member as being formed by bending a plate around a former, yet I do not wish to be limited to such a manner of construction as the same may be formed by casting or in any desired manner.

The sides 4 of the combined casting are preferably provided with apertures 24 registering with the aperture 25 through the wear member

20 for receiving the retainer 23. The said apertures 24 preferably extend through the webs 4 and the apertured portions of said webs are reinforced by flange or web portions 26 which extend inwardly to snugly embrace the wear member 20 and outwardly to the outer edges of the webs or flanges 16 on one side of the casting, while on the other side they need not extend as far outwardly, as locking means for the retainer 23 need only be provided on one side. Said locking means, in the present instance, is shown as preferably comprising a rivet 27 extending through registering apertures in flanges 26 and retainer 23, but it is obvious I do not wish to be limited to this showing as a bolt, cotter or other locking or holding means may be employed.

From the foregoing description it will be apparent that I have provided a combined striking casting and sill tie member which is adapted to receive a removable wear member or plate and said member is adapted to be conveniently and economically manufactured. The retaining means, as well as the plate, is simple and inexpensive to manufacture and is adapted to be readily secured in position while at the same time, after securing, it is held so that undesired removal or loss is unlikely.

Although I have shown the retainer 23 as being a plain flat plate unprovided with a head at one end, it is obvious that I do not wish to be restricted to this showing as, if desired, another form of retainer may be employed.

It will be appreciated, that on account of my novel wear member being of greater depth than the standard or American Railway Association wear plate, in which a single thickness of metal rests on the coupler carrier or sill tie portion of the casting, an opening of greater depth is provided upon removal of said wear plate, thereby furnishing enough additional space so that the shank of a swivel butt coupler, such as illustrated in the drawing, or the shank of any coupler of a depth increased at its butt portion to a depth not greater than that of the swivel butt coupler illustrated, can be inserted and removed when the wear plate is not in place. I have therefore provided a wear plate which is only slightly more expensive than the A. R. A. wear plate, while at the same time it permits of use of a swivel butt coupler of normal dimensions which could not be inserted and removed if a combined casting of standard opening and using an A. R. A. wear plate were employed.

Having now described my invention, what I claim is:

1. A combined casting comprising portions serving, respectively, as a striking casting and sill tie member, said casting being provided with side portions connecting the ends of said striking casting and sill tie member, a wear member formed as a plate with the sides doubled under; spaced from the central portion, and resting on said sill tie member between said side portions, and retaining means for said wear member extending into corresponding apertures in the side portions of the casting and passing below the central portion and above the doubled under sides of the wear member.

2. A combined casting comprising portions serving, respectively, as a coupler stop member and carrier, said coupler stop member having a horizontal shelf portion extending rearwardly therefrom and adapted to underlie an associated portion of the car underframe for connection thereto, said coupler stop portion and carrier

being connected by integral side portions of the casting leaving an aperture therebetween for receiving the butt of a coupler, a removable wear member supported on said carrier portion between the sides of the casting, said member being formed as a flat plate bent upon itself leaving a longitudinally elongated opening therethrough, retaining means for said wear member comprising a flat key passing through the opening therein and into registering openings in the sides of the casting, and locking means for said retainer intersecting an end thereof and an adjacent portion of the casting for preventing undesired removal of the wear member.

3. A combined casting comprising portions serving, respectively, as a coupler stop member and carrier, said coupler stop member having a substantially horizontal shelf portion extending rearwardly therefrom and adapted to underlie an associated part of a car underframe, said stop portion and carrier being connected by integral side portions of the casting leaving an opening therebetween for receiving the stem of a coupler, a removable wear member supported on said carrier portion between the sides of the casting and formed as a flat plate with side portions thereof doubled upon itself leaving an opening therethrough, and retaining means for said wear member passing through the opening therein and into registering openings in the sides of the casting.

4. A combined casting comprising portions serving, respectively, as a striking casting and

sill tie member, said casting being provided with side portions connecting the ends of said striking casting and sill tie member, a wear member formed with side portions of multiple thickness and an intermediate portion of single thickness, the elements of each side portion of said wear member being spaced to form a groove opening toward that of the other for the reception of retaining means, said wear member resting on said sill tie member between said casting side portions, and retaining means for said wear member extending under the intermediate portion, with side portions thereof received in said grooves, and with its ends received in corresponding apertures in the side portions of the casting.

5. A combined casting comprising portions serving, respectively, as a coupler stop member and carrier, said portions being connected by integral side portions leaving an opening therebetween for receiving the stem of a coupler, a removable wear member supported on said carrier portion between the sides of the casting and comprising a generally rectangular normally horizontal plate with side portions doubled upon itself to form normally horizontal flange portions spaced from the central portion of said plate, presenting flat upper and lower surfaces and leaving an elongated opening therethrough, and retaining means for said wear member passing through said opening and into corresponding receptacles in the sides of the casting.

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