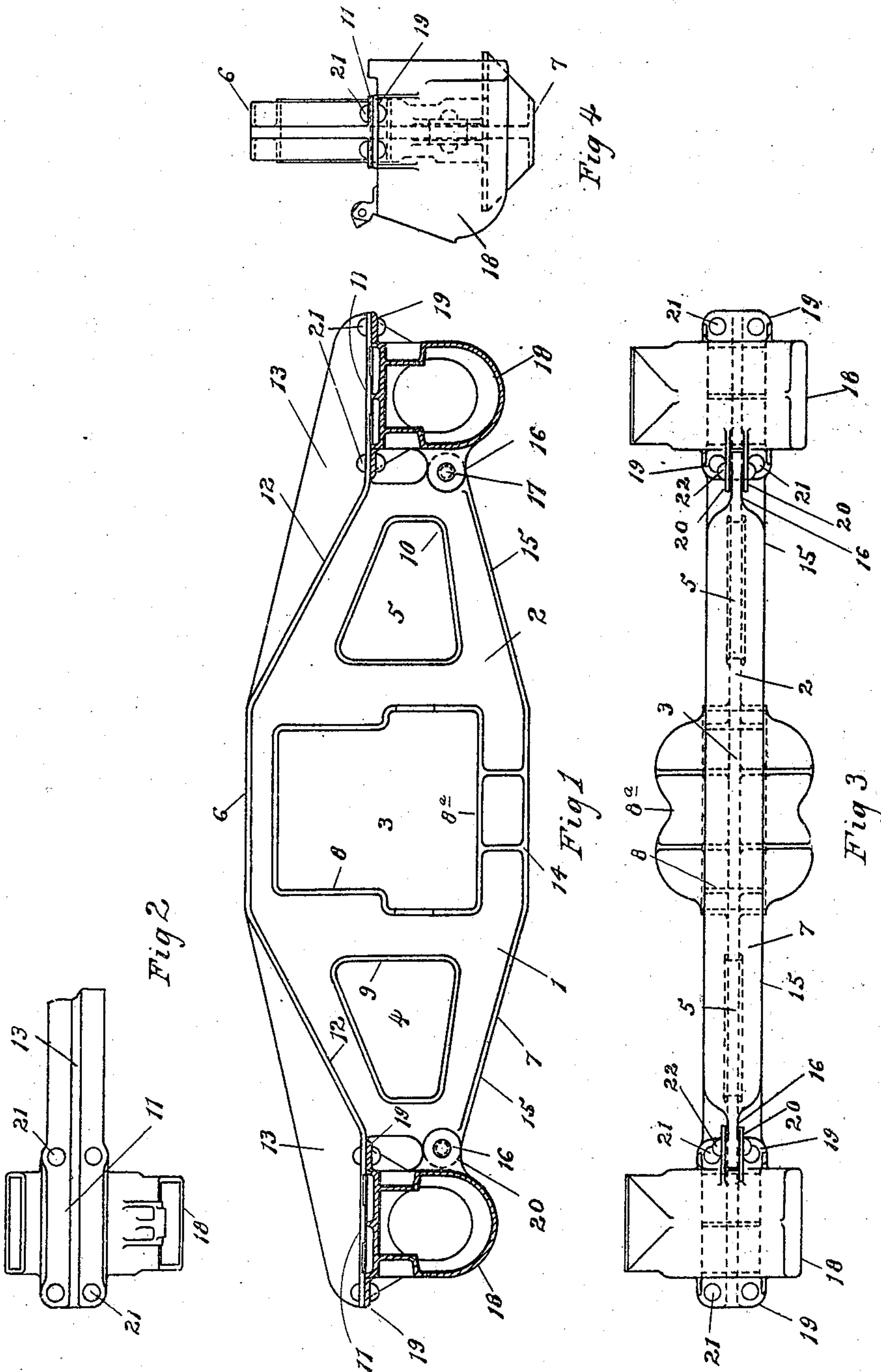


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SIDE FRAME.  
APPLICATION FILED DEC. 29, 1909.

975,093.

Patented Nov. 8, 1910.



WITNESS

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# UNITED STATES PATENT OFFICE.

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## SIDE FRAME.

975,093.

Specification of Letters Patent.

Patented Nov. 8, 1910.

Application filed December 29, 1909. Serial No. 535,387.

*To all whom it may concern:*

Be it known that I, ARTHUR H. WESTON, a citizen of the United States of America, residing in Baltimore county, State of Maryland, have invented certain new and useful Improvements in Side Frames, of which the following is a specification.

This invention relates to side frames and journal boxes and particularly to a side frame to which the journal boxes are rigidly and permanently attached.

A structure embodying my invention which is herein shown consists of a cast-steel side frame and malleable iron journal boxes. The frame has a vertical web and lateral flanges, the latter forming an upper arch and a lower arch. The upper arch terminates at each end in a horizontal box plate, and the frame is provided with two ears, one at each end of the lower arch. The box plates rest, one on each box, and, preferably, the boxes are provided with flanges which are riveted to the box plates, and an ear on one side of each box is riveted to the corresponding ear on the frame. A portion of the vertical web overlies the inclined portion at each end of the upper arch and extends over the corresponding box plate to reinforce the latter. The web is apertured centrally to form the usual bolster opening which is surrounded by a lateral flange, and a portion of the web between the bolster opening and the ends is also preferably cut away to lighten the structure.

The accompanying drawings illustrate a preferred embodiment of my invention.

Figure 1 is a side elevation of a side frame, the boxes being shown in transverse section. Fig. 2 is a top plan view of one end of the side frame with the journal box attached thereto. Fig. 3 is a bottom plan of the side frame and journal boxes. Fig. 4 is an end view, showing one journal box and the side frame.

The side frame 1 is cast of steel in a single integral piece and, as shown, consists of a vertical web 2 having laterally extending flanges. The web is apertured centrally at 3 to form the usual bolster opening and at 4 and 5, between the bolster opening and the ends, to lighten the structure. The flanges form an upper arch 6 and a lower arch, or supporting member, 7. They also surround the bolster opening at 8, forming at the lower sides of the opening a spring seat 8<sup>a</sup>,

and narrower flanges, 9 and 10, surround the openings 4 and 5. Preferably, the upper arch is concave upwardly and the lower arch is concave downwardly. The upper arch 6, as shown, is horizontal at its central portion from which it is inclined downward to the front and to the rear and terminates at each end in a horizontal portion 11, hereinafter termed a box plate. The inclined portions 12 of the upper arch and the box plates 11 are provided with a central vertical web 13 which extends upward from both members, reinforcing the box plates. The lower arch, or supporting member, 7 is also horizontal at its central portion 14, and its ends 15 are inclined upward. At each extremity of the arch, the web is formed into ears 16 which are apertured transversely at 17.

The journal boxes 18, preferably of wrought iron, are flanged at each of their upper edges, parallel to their axes, at 19, and each box is provided on the side adjacent the frame, as shown, with two ears 20. The box plates 11 overlie and rest upon the top surfaces, preferably, on the flanges 19 of the boxes, and the flanges are secured to the box plates by rivets 21. The ears 16 on the frame are placed between the ears 20 on the boxes, and the latter are fastened by means of rivets 22.

I have described in minute detail an embodiment of my invention in order that its nature and application may be understood, but I do not desire to limit myself to these details.

What I claim and desire to secure by Letters Patent is:

1. In combination, in a car truck, cast steel side frames and malleable iron journal boxes, each frame consisting of a vertical web and lateral flanges, the latter forming an upper arch and a lower arch, the upper arch terminating at each end in a horizontal box plate, each box plate resting on a journal box, two ears, one at each end of the lower arch, flanges on each box to cooperate with the box plate, and ears thereon to cooperate with the ears on the frame, rivets permanently securing the flanges to the box plate, and other rivets likewise securing the ears on the boxes to the corresponding ears on the frame, a portion of the web overlying the extremities of the upper arch and the box plates.

2. In combination, in a car truck, side

frames and journal boxes, each frame consisting of a vertical web and lateral flanges, the latter forming an upper arch and a supporting member, the upper arch terminating  
5 at each end in a horizontal box plate, each plate resting on a journal box, two ears, one at each end of the supporting member, ears on the boxes to coöperate with the ears on the frame, and means for permanently se-

curing the plates to the boxes and the ears of 10 the frame to the ears of the boxes.

Signed by me at Baltimore, Maryland,  
this 21st day of December 1909.

ARTHUR H. WESTON.

Witnesses:

J. LE ROY HOPKINS,  
E. JOHN NICHOLS.