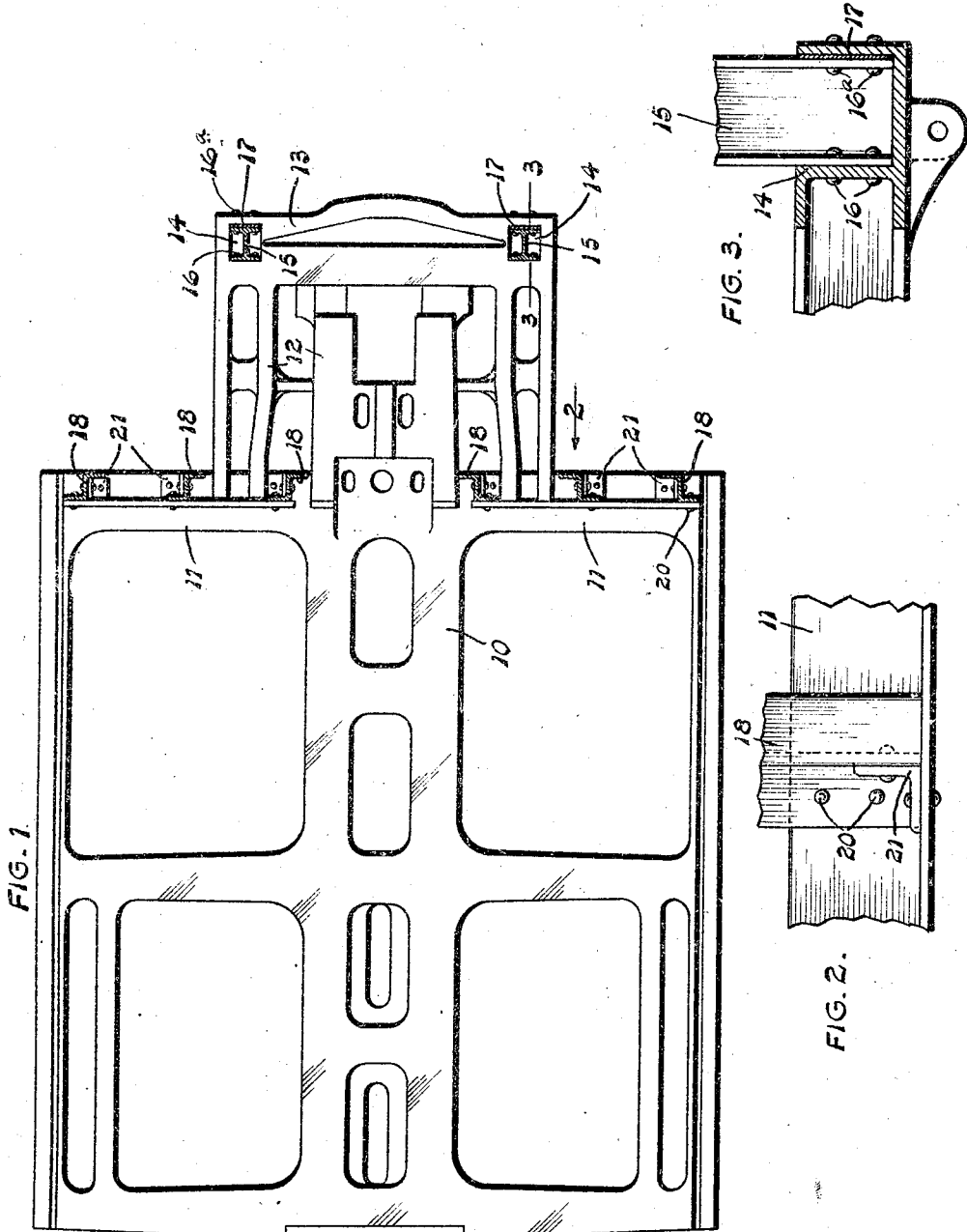


C. F. FREDE & C. T. WESTLAKE.
 CAR CONSTRUCTION.
 APPLICATION FILED JULY 3, 1911.

1,046,382.

Patented Dec. 3, 1912.



WITNESSES

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UNITED STATES PATENT OFFICE.

CHARLES F. FREDE AND CHARLES T. WESTLAKE, OF ST. LOUIS, MISSOURI, ASSIGNORS
TO DOUBLE BODY BOLSTER COMPANY, OF ST. LOUIS, MISSOURI, A CORPORATION OF
NEW JERSEY.

CAR CONSTRUCTION.

1,046,382.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that we, CHARLES F. FREDE and CHARLES T. WESTLAKE, citizens of the United States, residing at St. Louis, Missouri, have invented a certain new and useful Improvement in Car Construction, of which the following is a full, clear, and exact description, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a plan view of a portion of a combined cast metal platform and double body bolster of the type employed in connection with the under frames of sleeping cars and illustrating our improved construction in connection therewith. Fig. 2 is an enlarged detail elevation of the parts looking in the direction indicated by the arrow 2 Fig. 1. Fig. 3 is an enlarged detail section taken approximately on the line 3—3 of Fig. 1.

Our invention relates generally to car construction and particularly to the means employed for rigidly connecting the lower ends of the vestibule posts and the end wall posts to the end sills and buffing sills of car under frames.

In passenger car construction of the present types, it is to a large extent the practice to utilize combined cast steel platforms and double body bolsters, and it is the object of our invention to provide simple means for attaching the vestibule posts and end wall posts to the end sills and buffing sills of the platform and to unite the posts and sills in such a manner as to provide a very strong rigid construction particularly adapted to withstand end shocks and buffing strains to which the end walls and vestibule walls are subjected during service.

To the above purposes our invention consists in certain novel features of construction and arrangement of parts hereinafter more fully described and claimed.

Referring by numerals to the accompanying drawings, 10 designates the main body of the combined platform and double body bolster, 11 the end sill thereof, 12 the cast metal frame of the platform and 13 the hollow buffing sill, all of which parts are of ordinary construction.

The end portions of the buffing sill 13 are

provided with open topped pockets 14, and positioned therein are the lower ends of vestibule posts 15, which latter are preferably I-shaped in cross section. The rear flanges of the posts 15 fit directly against the rear vertical wall of the buffing sill 13, and passing through said flanges and wall 5 are rivets 16.

The front portions of the posts 15 are rigidly fixed to the front vertical wall of the buffing sill by means of rivets 16^a, and in order to insure a snug and perfect fit between the lower ends of the posts 15 and the buffing sill shims or liners in the form of metal plates 17 are inserted between the posts 15 and the front walls of the sill 13 before the rivets 16^a are applied, thus the bottoms of the posts 15 rest directly upon the horizontal bottom plate of the buffing sill, and the front and rear faces of the lower ends of said posts bear against the front and rear vertical walls of said buffing sill thereby providing a very strong, substantial and rigid construction.

The end wall posts 18 of the car body are substantially Z-shaped in cross section, and the lower ends of said posts rest upon an outwardly projecting horizontal flange of the end sill 11. The lower ends of these end posts are rigidly fixed to the end sill 11 by means of horizontally disposed rivets 20, passing through the vertical flange of the end sill and through the portions of the posts which bear against said vertical flange, and said posts are further secured in position by means of angle clips 21, which are riveted to the horizontal flange of the end sill, and to the central portions or webs of the Z-shaped posts 18.

It will be noted that in our construction the lower ends of the vestibule posts 15 occupy the openings 14 in the ends of the buffing sill and the flanges of said posts are riveted to the vertically disposed front and rear walls of said sill. Thus a strong and substantial connection is made between the lower ends of the vestibule posts and the buffing sill and all shocks and strains imparted during service to the vestibule posts are transmitted directly to the buffing sill. By imposing one or more plates 17 between the lower end of the vestibule post and the front wall of the buffing sill a perfect fit is insured between the post and sill, thus tak-

ing care of any variation in size in the width of the post or of the width of the opening of pocket 14.

Our improved construction is comparatively simple, is particularly adapted for all types of cars utilizing combined cast steel platforms and double body bolsters, and provides a very strong and rigid construction between the vestibule posts and end posts, and the end and buffing sills of the combined platform and double body bolster.

It will be readily understood that minor changes in the form and construction of our improved device may be made and substituted for those herein shown and described without departing from the spirit of our invention, the scope of which is set forth in the appended claims.

We claim:

1. In car construction the combination with a combined platform and double body bolster, of a buffing sill integral with the platform in which buffing sill are formed openings, vestibule posts having their lower ends seated in said openings, means for rigidly fixing the lower ends of the posts to the buffing sill, a horizontally disposed flange projecting outwardly from the end sill of the double body bolster, and car end frame posts, the lower ends of which are supported by and fixed to said flange.

2. In car construction, a double body bolster, an end sill integral therewith, a horizontally disposed bottom flange projecting outwardly from said end sill, a hollow buffer beam having openings in its top plate adapted to receive the lower ends of vestibule posts, and a platform underframe integral with said buffer beam and the central portion of the end sill.

3. In car construction, an integral structure comprising a cast metal double body bolster, an end sill, which includes a vertically disposed web, and a horizontally disposed bottom flange, which web and flange are adapted to be engaged by the car body end posts, a platform underframe projecting outwardly from the central portion of

the said end sill, and a hollow buffing sill integral with the platform frame, the top plate of which buffing sill is provided with openings adapted to receive the lower ends of the vestibule posts.

4. In car construction a unitary cast metal structure comprising a combined double body bolster, an end sill provided with an end post supporting flange, a skeleton platform frame, and a buffer beam at the outer end of said platform frame, which buffer beam is provided with openings near its ends adapted to receive the lower portions of vestibule posts.

5. In car construction, a double body bolster having an end sill, a horizontally disposed flange projecting outwardly from said end sill for supporting the car end frame posts, a platform extending outwardly from the end sill of the double body bolster, a hollow buffer beam carried by the outer end of the platform, which buffer beam is provided in its top plate with openings adapted to receive the lower ends of the vestibule posts.

6. In car construction, a double body bolster having an end sill, a horizontally disposed flange projecting outwardly from said end sill for supporting the car end frame posts, a platform extending outwardly from the end sill of the double body bolster, a hollow buffer beam carried by the outer end of the platform, which buffer beam is provided in its top plate with openings adapted to receive the lower ends of the vestibule posts, and means for fixing the lower ends of the car body end posts to the end sill of the double body bolster and for fixing the lower ends of the vestibule posts to the buffer beam.

In testimony whereof we hereunto affix our signatures in the presence of two witnesses, this 24th day of June, 1911.

CHARLES F. FREDE.

CHARLES T. WESTLAKE.

Witnesses:

HAL C. BELLVILLE,
O. T. LEDFORD.