

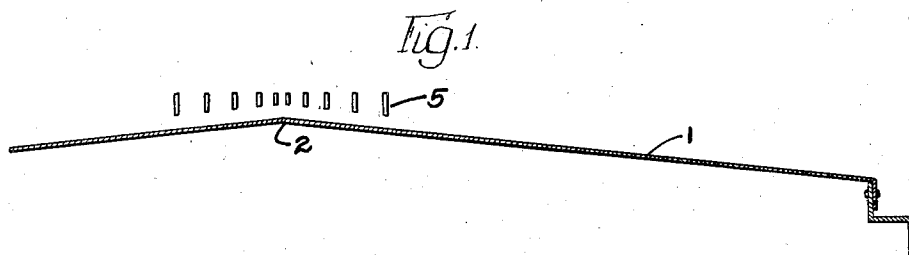
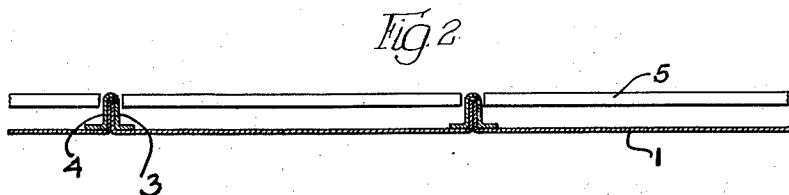
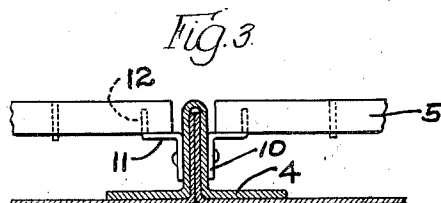
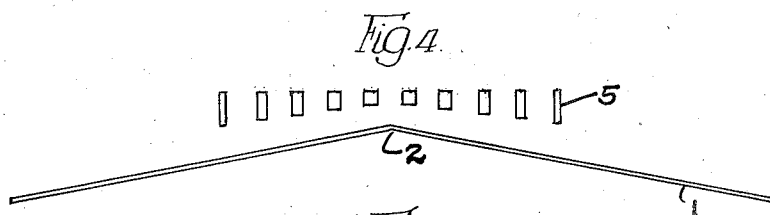
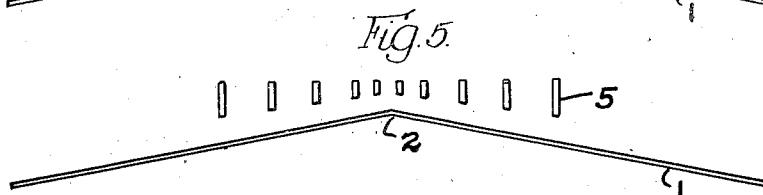
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2,420,533

WALK FOR RAILWAY HOUSE CARS

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WALK FOR RAILWAY HOUSE CARS

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5 Claims. (Cl. 105—457)

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The invention relates to a walk (or running boards as sometimes called) on the roof of a railway house car and extending continuously between opposite ends of the car at the middle of the car for use by the trainmen.

One of the objects of the invention is to reduce the vertical space occupied by the walk and thereby either increase the inside height of the lading space of the car or reduce the vertical overall height of the car. In other words, obtain the maximum height of the lading space of the car with the minimum height of the car from the rail.

The Association of American Railroads have adopted certain maximum outside dimensions of railroad cars (called a clearance diagram) and railroad cars must be within such dimensions or they will not be accepted in interchange by the various railroads. The modern house cars, such as box, automobile and furniture cars, are designed to take full advantage of these maximum dimensions. For instance, the top of the walk is coincident with the clearance diagram, therefore, a reduction of a half inch in the vertical height of a walk means a car having a half inch higher lading space, which is important and quite desirable today.

For years walks for railway house cars have been made of three one inch planks with an inch space between adjacent planks, but recently a number of designs of metallic walks have been introduced and in such metallic walks it has been found advisable to have openings in them so that snow and ice will not accumulate on the walks.

It has also been found advisable to provide a space between the walk and the top of the roof of the car to allow such snow and ice to run down the inclined roof. Said Association of American Railroads has established a minimum of $\frac{3}{4}$ " at the ridge and $1\frac{1}{4}$ " at the outside of the walk for the space between the walk and top of the car.

Most roofs of railway cars slope downwardly in opposite directions from the longitudinal center of the car or ridge, as it is called, and one of the objects of the invention is to provide a walk for such a car which is positioned over the ridge and comprises a plurality of spaced longitudinally extending vertically disposed parallel bars having the upper edges thereof in a horizontal plane to provide a walking surface for the trainmen and wherein the respective bars increase in depth from the middle of the walk to the outer sides thereof.

In the drawings:

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Fig. 1 is a transverse cross section of a part of a car roof showing the relation of my improved walk thereto.

Fig. 2 is a longitudinal cross section of the roof shown in Fig. 1 showing the relation of the roof carlines thereto.

Fig. 3 shows the saddles for supporting my walk upon the roof carline caps with the smaller bars omitted.

Fig. 4 shows a modification of the invention wherein the component bars of my device vary in thickness and depth.

Fig. 5 is an enlarged view of the walk shown in Fig. 1.

Figs. 1 and 2 show a roof comprising roof sheets 1 sloping downwardly on opposite sides of the ridge or apex 2 at the longitudinal center of the car. The roof sheets 1 are provided with upstanding marginal flanges 3 with a carline cap 4 straddling the adjacent flanges of adjacent sheets and securing them together.

My improved walk comprises a plurality of spaced longitudinally extending vertically disposed parallel bars 5 which extend between and are supported by the carline caps 4 with the upper surface of the walk substantially flush with the tops of the caps adjacent the ridge of the roof. The upper edges of the bars 5 are in a substantially horizontal plane to form a walking surface for the trainmen and the depth of said bars increases preferably progressively from above the ridge of the roof toward the opposite sides of the walk.

The running board saddle, as shown in Fig. 3, comprises a vertical leg 10 secured to the carline cap and an outwardly extending horizontal arm 11 which supports the vertical bars and an upwardly extending portion 12 positioned between the bars so as to provide spacers therefor. These saddles may be welded, or otherwise secured, to the bars.

If the bars were of the same width and spacing but of variable depth the bars adjacent the middle of the walk would be weaker than the other bars, therefore, it may be desirable to progressively decrease the thicknesses and increase the height of the bars from adjacent the middle of the walk to the opposite sides thereof, as shown in Fig. 4, thereby obtaining a walk of substantially equal strength over the entire area thereof. This same result may be accomplished by using bars of the same thickness but of different depths and varying the distance between the bars so that the bars adjacent the middle of the walk are closer together than the bars adjacent

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the sides thereof. This modification is shown in Fig. 5.

It may be desirable to provide means to maintain the bars in their relative position to each other by providing spacers which are provided with notches in the upper sides thereof to receive the longitudinal bars. As the bars are beams between the adjacent saddles or carline caps (if saddles are not used) I prefer to notch the cross bars and not notch the longitudinal bars so that the longitudinal bars will not be weakened as beams between their supports.

The accompanying drawings illustrate the preferred form of the invention, though it is to be understood that the invention is not limited to the exact details of construction shown and described, as it is obvious that various modifications thereof, within the scope of the claims, will occur to persons skilled in the art.

I claim:

1. A walk for a railway car having a roof sloping downwardly on opposite sides of a ridge at the longitudinal center of the car, said walk comprising a plurality of laterally spaced parallel bars spaced vertically above said roof, the tops of said bars being in a horizontal plane, the depths of the bars increasing from above the ridge of the roof toward the opposite sides of the walk, the spacing of the bars and the cross sectional area of the several bars being proportioned relative to each other so that said walk is of substantially equal strength over the entire area of the walk to support a vertical load.

2. A walk for a railway car having a roof sloping downwardly on opposite sides of a ridge at the longitudinal center of the car, said walk comprising a plurality of laterally spaced longitudinally extending parallel bars of substantially equal thickness spaced vertically above said roof, the tops of said bars being in a horizontal plane and the distances between said bars and the depths of said bars increasing from above the ridge of the roof toward the opposite sides of the walk, and means to support said bars upon said roof.

3. A walk for a railway car having a roof sloping downwardly on opposite sides of a ridge at the longitudinal center of the car, said walk comprising a plurality of substantially equally laterally spaced longitudinally extending parallel

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bars spaced vertically above said roof, the tops of said bars being in a horizontal plane and the depths of said bars increasing from above the ridge of the roof toward the opposite sides of the walk, and the thicknesses of said bars decreasing from above the apex of the roof toward the opposite sides of the walk, and means to support said bars upon said roof.

4. A walk for a railway car having a roof sloping downwardly on opposite sides of a ridge at the longitudinal center of the car, said walk comprising a plurality of laterally spaced parallel bars spaced vertically above said roof, the tops of said bars being in a horizontal plane, said bars being of substantially equal thickness, the depths of the bars and the spacing of the bars increasing from above the ridge of the roof toward the opposite sides of the walk so that said walk is of substantially equal strength over the entire area of the walk to support a vertical load.

5. A walk for a railway car having a roof sloping downwardly on opposite sides of a ridge at the longitudinal center of the car, said walk comprising a plurality of laterally spaced parallel bars spaced vertically above said roof, the tops of said bars being in a horizontal plane, said bars being substantially equally spaced apart, the depths of the bars increasing from above the ridge of the roof toward the opposite sides of the walk, and the thickness of the bars decreasing from above the ridge of the roof toward the opposite sides of the walk so that said walk is of substantially equal strength over the entire area of the walk to support a vertical load.

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