J. R. SCHRADER.

RUNNING BOARD FOR BOX CARS.

APPLICATION FILED AUG 19, 1915. RENEWED OCT. 25, 1917.

1,300,199. Patented Apr. 8, 1919.

2 SHEETS—SHEET 1.

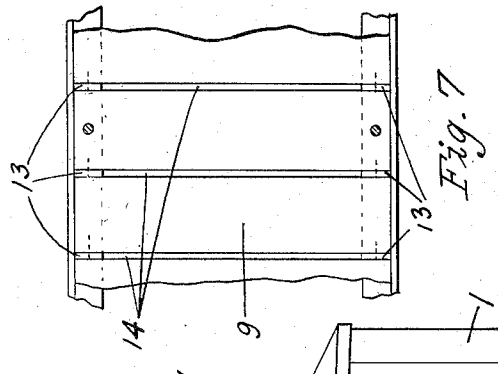


Fig. 7

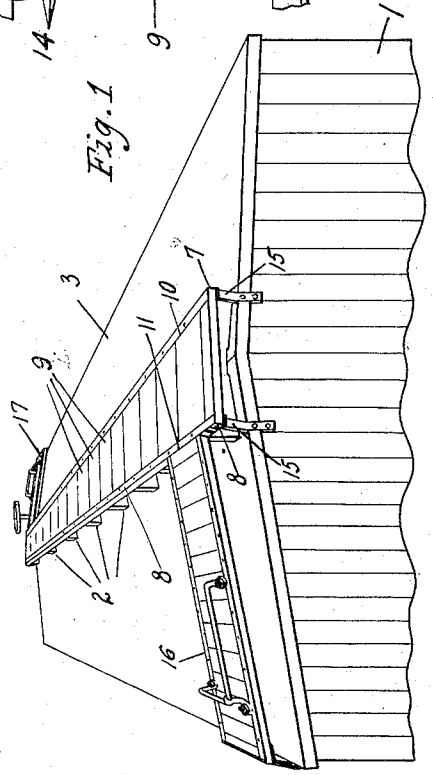


Fig. 1

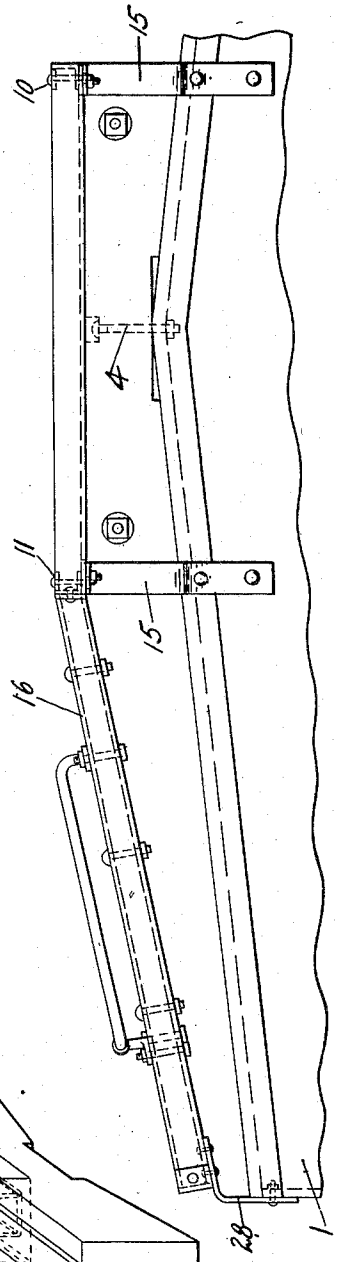


Fig. 2

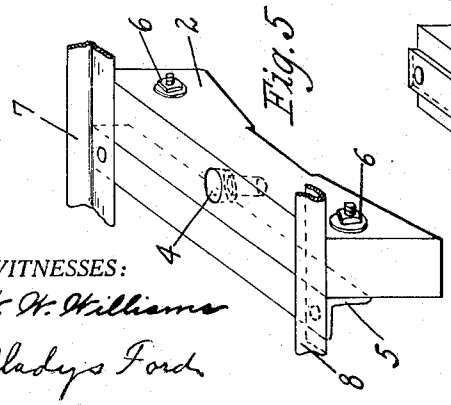


Fig. 5

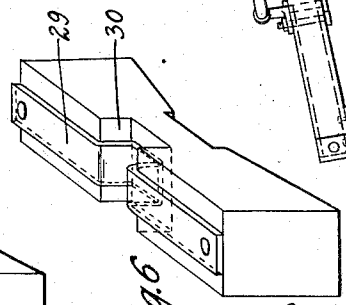


Fig. 6

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ATTORNEYS.

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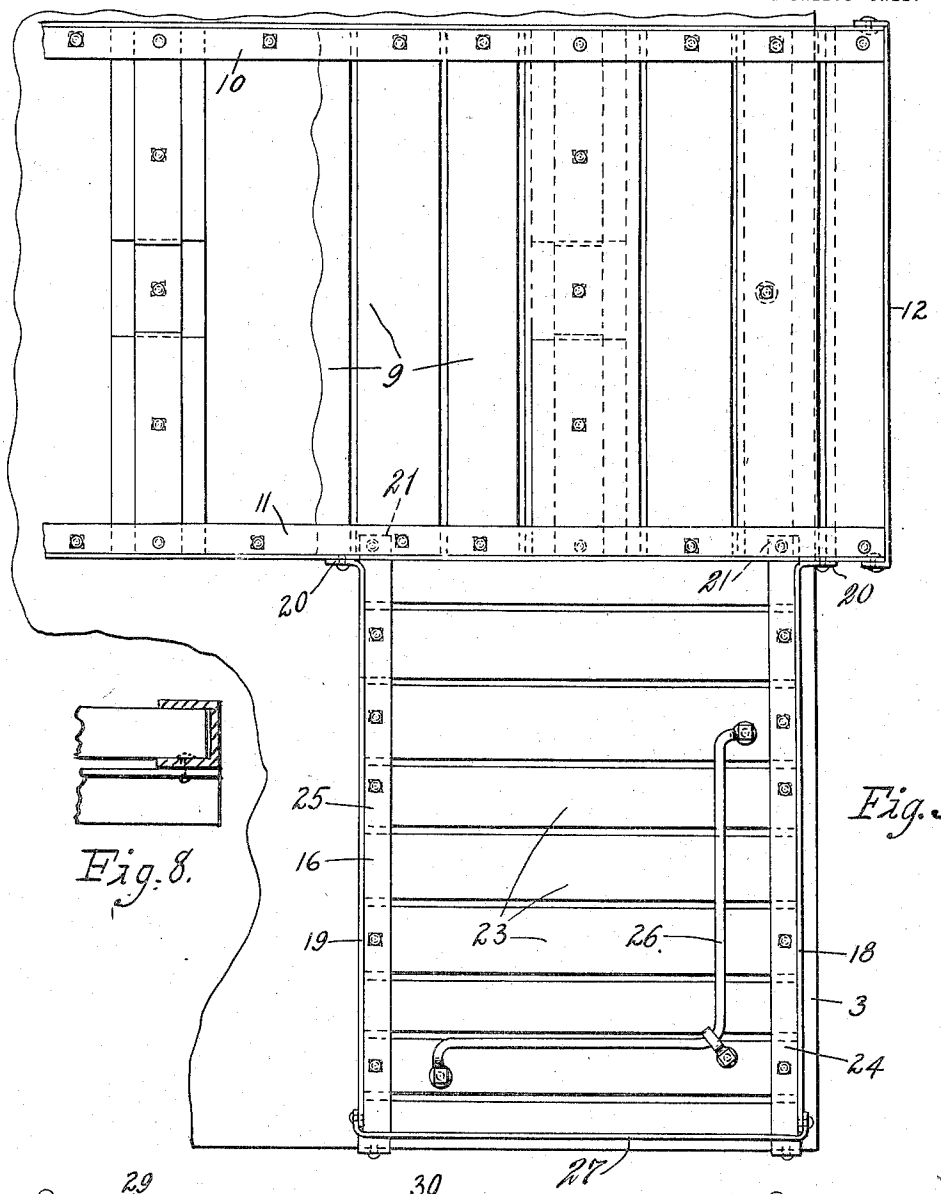


Fig. 3

Fig. 8.

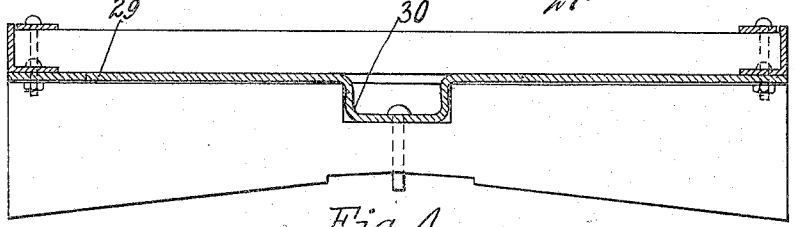


Fig. 4

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JOHN R. SCHRADER, OF NEW YORK, N. Y.

RUNNING-BOARD FOR BOX-CARS.

1,300,199. Specification of Letters Patent. Patented Apr. 8, 1919.

Application filed August 19, 1915, Serial No. 46,263. Renewed October 25, 1917. Serial No. 198,543.

To all whom it may concern:

Be it known that I, JOHN R. SCHRADER, citizen of the United States, and resident of New York city, in the county of New York and State of New York, have invented certain new and useful Improvements in Running-Boards for Box-Cars, of which the following is a specification.

My invention relates to box cars and particularly to the running boards therefor located over the top of the cars for the convenience of train hands in passing back and forth along the train.

Heretofore it has been the custom to mount upon the tops of such cars, cross supports or saddles with longitudinal planks nailed thereto arranged end to end along the top of the car.

Such an arrangement is subject to a number of objections. The cost of such planks runs into heavy figures for a railroad system. The planks become dry, the nails get loose, the planks split, the ends are sometimes jammed together due to the shocks to which freight cars are subjected; and broken portions and loose nails trip up trainmen resulting in injury and sometimes loss of life.

Whenever running boards have to be repaired, new planks have to be substituted for old ones at considerable expense. In wet weather the grain of the planks being arranged longitudinally of the car, makes them slippery.

Such running boards also have to be built and repaired upon the tops of the cars themselves.

My invention aims to overcome these difficulties.

My invention comprises a suitable support arranged longitudinally of the car upon which are mounted the short ends of boards of any width but of substantially the same length. These boards are secured to the longitudinal support and since the grain crosses the car they are less slippery in wet weather. As such short ends of boards are found in profusion around car shops and railroad yards, the cost of construction as far as the boards are concerned, is reduced to the lowest limit.

The longitudinal supports which I employ are preferably located at each side of the running board and are adapted to receive the ends of the short boards located thereon. Angle iron strips are preferred for these longitudinal supports and they are securely bolted to the saddles. Upon these angle iron supports and between their upstanding flanges are located the short lengths of boards of any width suitably held down by bolts, passing through the angle iron.

This construction makes it possible for the running-board to be manufactured in a car shop and mounted as a whole upon a box car or removed therefrom; and this construction makes repairs easy either in the shops or on the car wherever short lengths of boards may be found.

It is thus apparent that the frame of supports of my running-board is permanent in construction and the boards, which are subject to wear and deterioration, are easily replaced.

In the drawings:

Figure 1 is a perspective view of my running-board applied to the top of a freight car.

Fig. 2 is an end view thereof.

Fig. 3 is a plan view of a portion thereof.

Fig. 4 is a modification of a detail.

Fig. 5 shows how the frame of my running-board is mounted upon the saddles.

Fig. 6 shows a perspective view of the modification shown in Fig. 4.

Fig. 7 is a plan view of a portion of my running-board with the top securing straps removed.

Fig. 8 is a partial transverse section showing a modification in which a channel strip is employed instead of an angle strip.

In Fig. 1 the box car 1 is provided with saddles 2 properly secured to the roof 3. One of these saddles is shown in Fig. 5 and is provided with the customary bolt hole 4 by means of which it is secured to the top of a car as shown in Fig. 2. Secured to one side of the saddle 2 is an angle iron 5 suitably bolted to the saddle (not to the roof through the saddle) as indicated at 6. Upon the top flange of this angle iron are riveted the longitudinal supporting strips 7 and 8. These supporting strips may be of any suitable shape adapted to receive the ends of boards 9 shown in Figs. 1, 3 and 7. Upon the top of the ends of these boards are located securing strips 10 and 11 shown in

Figs. 1, 2 and 3. These securing strips are preferably bolted through the wooden ends and through the flanges of the angle iron strips 7 and 8, thereby securing the boards so that they can not get out of the frame. At each end of the running-board is an additional strap of iron 12 riveted as indicated to the ends of the angle iron strips 10 and 11 thereby closing the ends of the running-board so that the boards can not get out.

The boards are preferably separated from each other as indicated in Fig. 7. In this figure are shown blocks of wood 13 nailed to the edges of the boards 9,—one block for each board. These blocks separate the boards so as to allow spaces 14 between the boards for the escape of water and for the purpose of making the boards less slippery to the feet.

At each end of the running-board is secured the strap 15 securing the ends of the strips 10 and 11 as shown, to the end of the car, the running board projecting beyond the end of the one by some 10 inches. Secured to the longitudinal frame work at each end and on opposite sides thereof are the latitudinal running-boards 16 and 17. Each one of these running-boards may comprise the longitudinal strips 18 and 19 preferably of angle iron. One end of each angle iron is split, one flange being secured to the upstanding flange of the angle iron 11 as shown at 20 and the other end being riveted to the bottom flange of the angle iron 11 as shown at 21. Similar boards of varying widths 23 are located upon the supports 18 and 19 and secured in place by the securing strips 24 and 25. A handle 26 may be secured as shown or to the running-board in any desired manner. An end strap 27 closes the end of this running-board in the same way as the strap 12. In Fig. 2 are shown the brackets 28 riveted to the longitudinal strips of this part of the running-board and bolted to the side of the car 1.

The two latitudinal running-boards may be duplicates and symmetrical if desired.

In Fig. 6 is shown a modification. In place of the angle iron 5 shown in Fig. 5 a strap 29 may be employed, the middle of the same being bent into the recess 30 thereby securing the strap from lateral displacement. The longitudinal strips of the running-boards may be riveted to the ends of this strap. A strap may be employed at each saddle if desired. My preferred form of construction however is shown in connection with Figs. 1, 2, 3, 5 and 7.

The objection to the use of the form shown in Figs. 4 and 6 is that the frame of the board is bolted through the saddle and through the roof of the car so that it is possible that leakage might occur and damage to the contents of the car due to rain might be blamed upon the running-board. For this reason, the construction shown in Fig. 5 is preferable, for by means of this construction the running board is bolted to the saddles in such a way as not to affect the present method of securing them to the top of the car.

Many variations may be made in the form and details of my invention without departing from its spirit.

What I claim and desire to secure for Letters Patent for is:—

1. In combination with the roof of a box car and saddles fitting and mounted upon the same, a support disposed longitudinally of the car, composed of strips of iron mounted upon said saddles on the roof adapted to receive short lengths of boards and lateral tie straps securing said strips in parallel position secured to said saddles.

2. In combination with the roof of a box car and saddles fitting and mounted upon the same, a support disposed longitudinally of the car, composed of strips of iron mounted upon said saddles on the roof and lateral tie straps securing said strips in parallel position composed of iron secured to said saddles.

3. In combination with the roof of a box car and saddles fitting and mounted upon the same, a support disposed longitudinally of the car, composed of strips of iron mounted upon said saddles on the roof and lateral tie straps securing said strips in parallel position secured to said saddles.

4. In combination with the roof of a box car and saddles fitting and mounted upon the same, a support disposed longitudinally of the car, composed of strips mounted upon the ends of said saddles on the roof adapted to receive short lengths of boards arranged laterally upon and secured to said longitudinal support and a binding strip adapted to secure the ends of said short lengths to said longitudinal support, one binding strip for each longitudinal strip of angle iron.

5. In a running-board for the top of a box car, a support disposed longitudinally of the car, composed of strips of angle iron mounted upon the ends of saddles on the roof adapted to receive short lengths of boards arranged laterally upon and secured to said longitudinal support and a binding strip adapted to secure the ends of said short lengths to said longitudinal support, one binding strip for each longitudinal strip of angle iron.

6. In combination with the roof of a box car and saddles fitting and mounted upon the same, a support disposed longitudinally of the car, composed of strips mounted upon the ends of said saddles on the roof, adapted to receive short lengths of boards arranged laterally upon and secured to said longitudinal support, the ends secured to

said strips and prevented thereby from being displaced in a lateral direction, lateral tie straps securing said strips in parallel position.

7. In a running board for the top of a box car, a support disposed longitudinally of the car, composed of strips mounted upon the ends of saddles on the roof adapted to receive short lengths of boards arranged laterally upon and secured to said longitudinal support, the ends secured to said strips and prevented thereby from being displaced in a lateral direction, lateral tie straps securing said strips in parallel position, composed of angle iron.

8. In a running-board for the top of a box car, a support disposed longitudinally of the car, composed of strips, mounted upon the ends of saddles on the roof, adapted to receive short lengths of boards arranged laterally upon and secured to said longitudinal support, the ends secured to said strips and prevented thereby from being displaced in a lateral direction, lateral tie straps securing said strips in parallel position, composed of angle iron secured to said saddles.

9. In combination with the roof of a box car and saddles fitting and mounted upon the same, a support disposed longitudinally of the car and short lengths of boards arranged laterally upon and secured to said longitudinal support, and latitudinal extensions for said running-board having a similar construction.

10. In combination with the roof of a box car and saddles fitting and mounted upon the same, a support disposed longitudinally of the car and short lengths of boards arranged laterally upon and secured to said longitudinal support, latitudinal extensions for said running-board having a similar construction, the supports thereof composed of angle iron pieces.

11. In combination with the roof of a box car and saddles fitting and mounted upon the same, a support disposed longitudinally of the car of angle iron, short lengths of boards arranged laterally upon and secured to said longitudinal support and end straps across the ends of said longitudinal support, and separators between said boards to space them.

12. In a running board for the top of a box car, a support disposed longitudinally of the car, composed of strips of angle iron, L section, adapted to receive short lengths of boards arranged laterally upon and secured to said longitudinal support, a binding strip adapted to secure the ends of said short lengths to said longitudinal support, one binding strip for each longitudinal strip of angle iron.

13. In a running board for the top of a box car, a support disposed longitudinally of the car, composed of strips of angle iron, L section, adapted to receive short lengths of boards arranged laterally upon and secured to said longitudinal support, a binding strip adapted to secure the ends of said short lengths to said longitudinal support, one binding strip for each longitudinal strip of angle iron, and lateral tie straps securing said strips in parallel position.

14. In combination with the roof of a box car and a plurality of saddles mounted crosswise upon the same distributed along the roof, a support disposed longitudinally of the car upon said saddles and short lengths of boards arranged laterally upon said longitudinal support.

15. In combination with the roof of a box car and a plurality of saddles mounted crosswise upon the same distributed along the roof, a support disposed longitudinally of the car composed of a frame mounted upon said saddles on the roof, short lengths of boards arranged laterally upon and secured to said longitudinal support.

16. In combination with the roof of a box car and a plurality of saddles mounted crosswise upon the same, distributed along the roof, a support disposed longitudinally of the car, composed of strips of iron mounted upon the ends of said saddles and short lengths of boards arranged laterally upon and secured to said longitudinal support.

17. In combination with the roof of a box car and a plurality of saddles mounted crosswise upon the same, distributed along the roof, a support disposed longitudinally of the car, composed of strips mounted upon said saddles on the roof and short lengths of boards arranged laterally upon and secured to said longitudinal support.

18. In combination with the roof of a box car and a plurality of saddles mounted crosswise upon the same, distributed along the roof, a support disposed longitudinally of the car, composed of strips of iron mounted upon the ends of said saddles and lateral tie straps securing said strips in parallel position.

19. In combination with the roof of a box car and a plurality of saddles mounted crosswise upon the same distributed along the roof, a support disposed longitudinally of the car, composed of strips of iron mounted upon said saddles and lateral tie straps securing said strips in parallel position.

20. In combination with the roof of a box car and a plurality of saddles mounted crosswise upon the same distributed along the roof, a support disposed longitudinally of the car, composed of strips of iron mounted upon the ends of said saddles adapted to receive short lengths of boards and lateral tie straps securing said strips in parallel position secured to said saddles.

21. In combination with the roof of a box car and a plurality of saddles mounted cross-

wise upon the same distributed along the roof, a support disposed longitudinally of the car, composed of strips mounted upon the ends of said saddles adapted to receive short lengths of boards arranged laterally upon and secured to said longitudinal support, the ends secured to said strips and prevented thereby from being displaced in a lateral direction.

22. In combination with the roof of a box car and a plurality of saddles mounted crosswise upon the same distributed along the roof, a support disposed longitudinally of the car, composed of strips mounted upon the ends of said saddles adapted to receive short lengths of boards arranged laterally upon and secured to said longitudinal support and a binding strip adapted to secure the said short lengths to said longitudinal support.

23. In combination with the roof of a box car and a plurality of saddles mounted crosswise upon the same distributed along the roof, a support disposed longitudinally of the car on said saddles, and short lengths of boards arranged laterally upon and secured to said longitudinal support, and latitudinal extensions for said running board having a similar construction.

24. In combination, a running board mounted upon the top of a box car on a member disposed longitudinally of the car, provided with a multiplicity of supports for said member, providing for the flowing away of rain water, short lengths of boards arranged laterally upon and secured to said longitudinal member and end straps across the ends of said longitudinal support.

25. In combination, a running board for the top of a box car, mounted on a member disposed longitudinally of the car above and free from its roof, means supporting said member on said top at a plurality of points along the roof, providing for the flowing away of rain, and short lengths of material suitable for a foot walk arranged laterally upon and secured to said longitudinal member.

Signed at New York in the county of New York and State of New York.

JOHN R. SCHRADER.

Witnesses:

MYRON F. HILL,

NEASON JONES.