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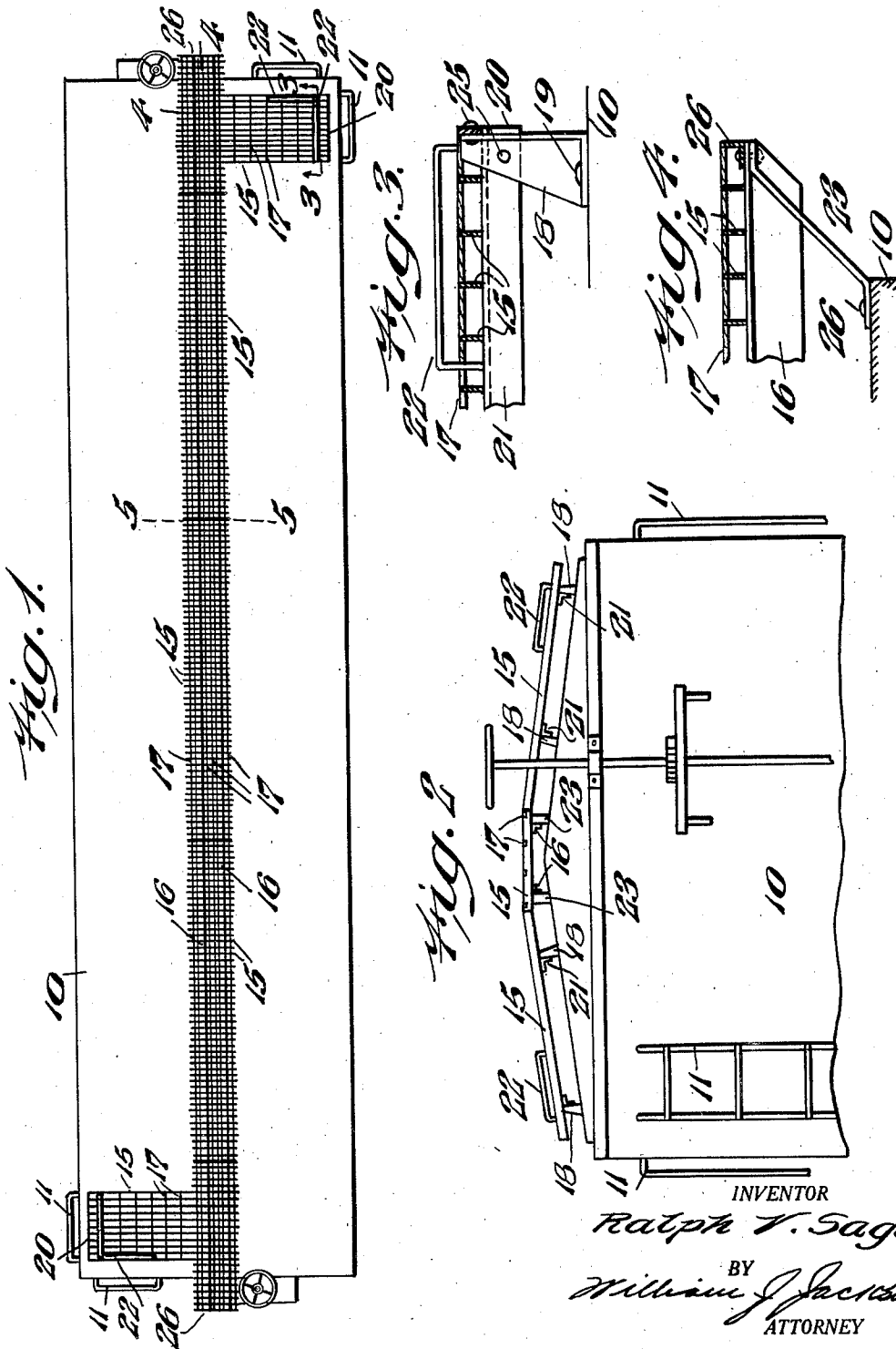
R. V. SAGE

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RUNNING BOARD FOR FREIGHT CARS

Filed Feb. 19, 1930

2 Sheets-Sheet 1



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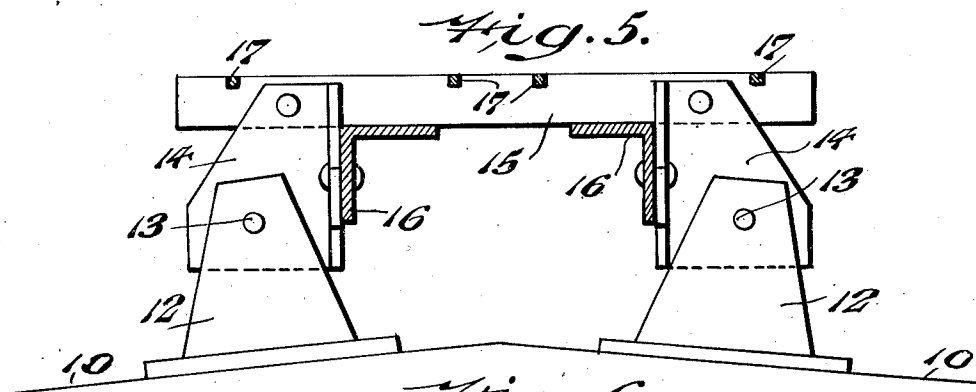
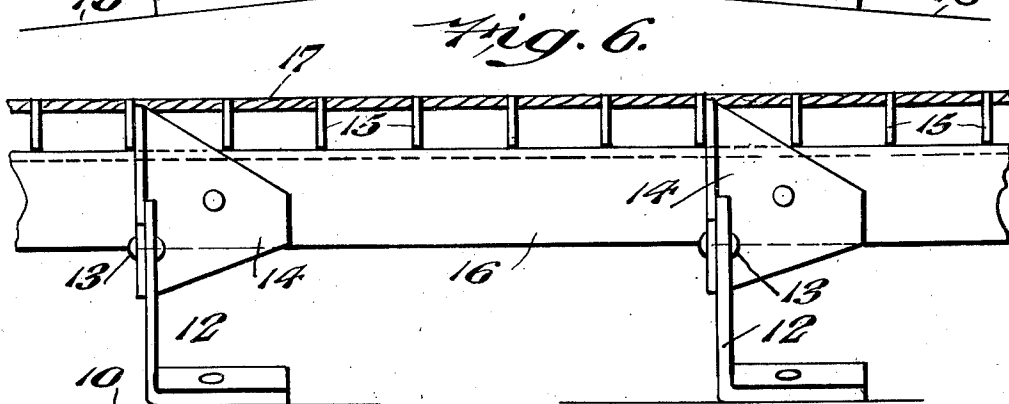
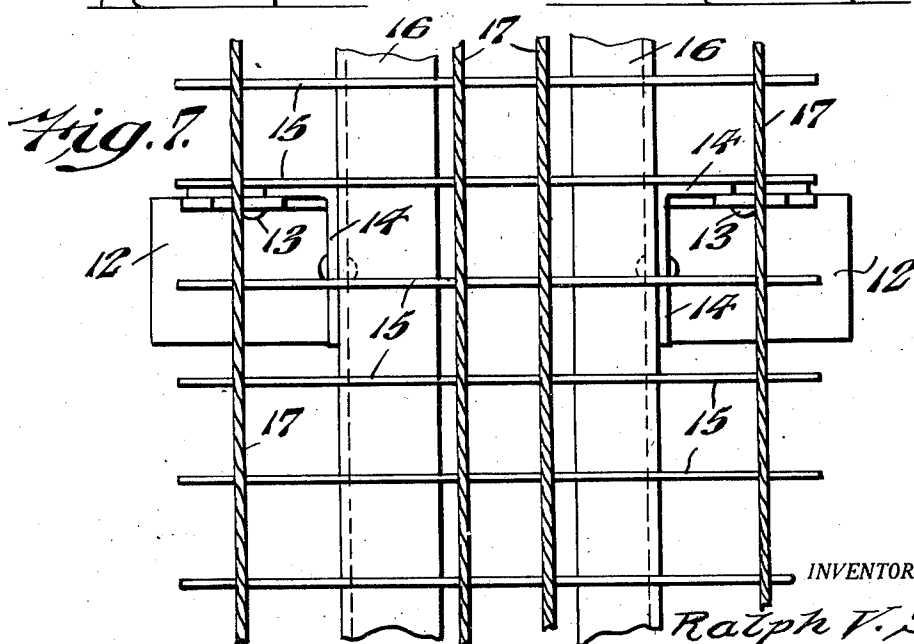
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2 Sheets-Sheet 2



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RUNNING-BOARD FOR FREIGHT CARS

Application filed February 19, 1930. Serial No. 429,568.

This invention, generally stated, relates to freight cars of the box type and has more especial relation to a running-board therefor, the leading object of the present invention being to provide a type or style of running-board which particularly lends itself to application to freight cars of all steel construction.

With this and other objects in view, it is the purpose of the present invention to fashion, in suitable lengths to facilitate manufacture, handling, and application, running or foot boards of metal construction designed to free themselves of ice, sleet, snow, and the like, thereby to afford better footing for trainmen in passing thereover.

A further purpose of the present invention is to provide a running or foot board of this character, the parts of which are so arranged and constructed that they may be interchangeably used at either end of the freight car.

A still further purpose of the present invention resides in the provision of a sectional running board so that in case of making repairs, substitution of parts may be readily effected.

A further purpose of the present invention resides in the provision of a running-board which may be readily attached to certain structures now forming part of conventional so-called all-steel freight car equipment.

A further object and purpose of the present invention is to provide a running board provided with longitudinally extended bars which are of twisted metal rigidly connected by transverse bars, said twisted bars being preferred because the same assist in preventing a trainman from slipping.

With these and other purposes and objects in view, the invention consists of the novel construction hereinafter described and finally claimed.

The nature, characteristic features and scope of the invention will be more fully understood from the following description taken in connection with the accompanying drawings forming part hereof, and in which:

Fig. 1 is a top or plan view of a freight

car having applied thereto a running-board embodying features of the invention;

Fig. 2 is an end view of Fig. 1;

Fig. 3 is a view in section taken upon the line 3—3 of Fig. 1;

Fig. 4 is a view in section taken upon the line 4—4 of Fig. 1;

Fig. 5 is a view in section taken upon the line 5—5 of Fig. 1;

Fig. 6 is a view in side elevation of Fig. 5; and

Fig. 7 is a top or plan view of Fig. 5.

For the purpose of illustrating my invention I have shown in the accompanying drawings one form thereof which is at present preferred by me, since the same has been found in practice to give satisfactory and reliable results, although it is to be understood that the various instrumentalities of which my invention consists can be variously arranged and organized and that my invention is not limited to the precise arrangement and organization of the instrumentalities as herein shown and described.

In the drawings, the reference numeral 10 designates a freight car of the box type, longitudinally along the top of which is arranged a running-board for the trainmen to pass over. At each end of the freight car 10 there is provided upon opposite sides thereof a ladder 11 for the convenience of trainmen in gaining access to the roof of the car and said running-board. Upon the top of the car are bolted pairs of spaced saddles or lugs 12, riveted to each of which as at 13 is an angle plate 14. Spanning pairs of plates 14 are transverse metal bars 15, of which there may be any number. These bars 15 are positioned edge-wise. Riveted to each angle plate 14 is a longitudinally extended angle iron 16 upon the flat top surface of which rest the transverse bars 15. Connecting the bars 15 are a plurality of other bars 17 longitudinally extended. The bars 15 and 17 are arranged to provide a lattice-like arrangement of parts so that ice, sleet, snow, and the like may readily pass between adjacent bars to provide a good and sure footing for trainmen passing over the running-board. In practice the running-board is made up into as many sec-

tions as is desired, and the end sections considered in plan are of relative T-shape, in conjunction with the longitudinally arranged running-board as a whole, as is clearly shown in Fig. 1. Each end section comprises bars 15 which are preferably twisted and superimposed upon which and having fixed relation with which are other bars 17. In the connection it may be stated that the bars 15 of the end sections are arranged at right angles with respect to the bars 15 of the main sections and that the bars 17 of the end sections are arranged in parallelism with the bars 17 of the main sections. The cross member of each T-shaped end section is in alignment with the other sections of the running-board, and the other leg thereof is at right angles with respect to the aforesaid cross member and leads to the ladders 11. For this purpose the T-shaped end sections are each bent or inclined in a direction from the center line of the car roof toward each ladder 11. These T-shaped end sections are interchangeable so that they may be used upon either end of the freight car. The bars 15 and bars 17 may be secured together in any desired fashion, as for instance by arc welding.

In practice good results have been obtained by making the longitudinally extended bars 17 of twisted metal since this assures the trainmen of a better footing. The transversely extended bars 15 are shown as being of untwisted or straight metal. For supporting the T-shaped end sections which lead to the ladders 11 I provide angle lugs 18, see Fig. 2, which are riveted to the top of the car 10 as at 19, see Fig. 3. The lugs 18 support horizontally arranged angle irons 21, the ends 20 of said irons 21 being extended slightly beyond the angle irons, see Fig. 3. Upon the said angle irons rest the transverse bars 15, the outermost of which bars rest upon the extended ends 20 of said angle irons 21. Both the outermost transverse bars 15 and the outermost ends of the angle irons 21 are riveted to the lugs 18 and the rivets are designated by the reference numeral 25. These angle irons form good supports at their tops to receive the hand grips 22 arranged adjacent the ladders 11. The ends of the T-shaped sections project beyond the car line at the ends thereof, see Figs. 1 and 4, and to support the same the angle irons 16 are provided with braces 23 suitably interposed between said angle irons and the top of car 10, and riveted at 26, said braces being inclined, as best seen in Fig. 4.

It is to be understood that the running-board forming the invention is of metal throughout and therefore the various parts may be either bolted together, riveted together, or welded together, as occasion may call for. Also the described running board parts can be bolted, riveted, or welded to so-

called all-steel freight cars, as may be desired. Therefore, resort to all specific methods of attachment in the drawings have been omitted, it being the understanding, however, that the method of attachment in all cases is a rigid attachment.

A running-board constructed as above described is light, strong, and durable, and is admirably adapted for use in connection with so-called all steel railway equipment. Since the parts are made in sections, the same may be readily handled, and in case repairs have to be made, the interchangeability of parts renders the construction elastic in type. Thus, in case certain parts of certain sections are impaired in service, it is not necessary to install an entirely new running-board since duplicate sections may be introduced.

What I claim is:

1. A running-board for the roof of railway cars and the like comprising a plurality of adjoining sections arranged end to end each section having a frame consisting of spaced longitudinally extended beams, an open-work metal grid forming a tread secured upon said frame, said grid consisting of relatively long longitudinally extended bars braced by relatively short transversely extended bars superimposed upon and rigidly connected to said longitudinal bars.

2. A running-board for the roof of railway cars and the like comprising a plurality of adjoining sections arranged end to end each section having a frame consisting of spaced longitudinally extended beams, an open-work metal grid forming a tread secured upon said frame, said grid consisting of relatively long longitudinally extended twisted bars braced by relatively short transversely extended bars superimposed upon and rigidly connected to said longitudinal bars.

3. A running-board for the roof of railway cars and the like comprising a plurality of adjoining sections arranged end to end each section having a frame consisting of spaced longitudinally extended angle beams, an open-work metal grid forming a tread secured upon said frame, said grid consisting of relatively long longitudinally extended bars braced by relatively short transversely extended bars.

4. A running-board for the roof of a railway car and the like comprising a plurality of adjoining sections arranged end to end the outermost end sections of which are T-shaped considered in plan, each section having a frame consisting of spaced longitudinally extended beams, an open-work metal grid forming a tread secured upon said frame, said grid consisting of relatively long longitudinally extended bars braced by relatively short transversely extended bars.

5. A running-board for the roof of railway cars and the like comprising a plurality of adjoining sections arranged end to end each

section having a frame consisting of spaced longitudinally extended beams, an open-work metal grid forming a tread secured upon said frame, said grid consisting of relatively long
5 longitudinally extended bars braced by relatively short transversely extended bars, at least some of the transverse bars of the end sections being arranged at an inclination.

6. A running board for the roof of railway
10 cars and the like comprising a plurality of adjoining sections arranged end to end each section having a frame consisting of spaced longitudinally extended beams, an open-work metal grid forming a tread secured upon said
15 frame, said grid consisting of relatively long longitudinally extended bars braced by relatively short transversely extended bars superimposed upon and rigidly connected to said longitudinal bars.

20 7. In combination a railway car or the like, the roof of which is provided with saddles, an all metal tread supported by said saddle and comprised of a plurality of adjoining sections arranged end to end each section be-
25 ing made up of longitudinally extended bars braced by transversely extended bars, at least one end section being relatively T-shaped considered in plan.

8. In combination, a railway car or the
30 like, the roof of which is provided with saddles, an all metal tread supported by said saddles and comprised of a plurality of adjoining sections arranged end to end each section being made up of longitudinally extend-
35 ed bars braced by transversely extended bars, at least one end section being relatively T-shaped considered in plan, and arranged for interchangeable attachment to either end of said car.

40 9. In combination, a railway car or the like, the roof of which is provided with saddles, an all metal tread supported by said saddles and comprised of a plurality of adjoining sections made up of longitudinally extended
45 bars braced by transversely extended bars, at least one end section being relatively T-shaped considered in plan, a hand grip supported by said T-shaped end section, and means for supporting said T-shaped section at either
50 end of said car.

10. A foot-board of the character stated comprising a plurality of sections arranged end to end, each section having a frame and a metal grid forming a tread secured upon
55 said frame and comprised of longitudinally arranged twisted bars and transversely arranged bars, and means for supporting said frame.

In testimony whereof, I have hereunto
60 signed my name.

RALPH V. SAGE.