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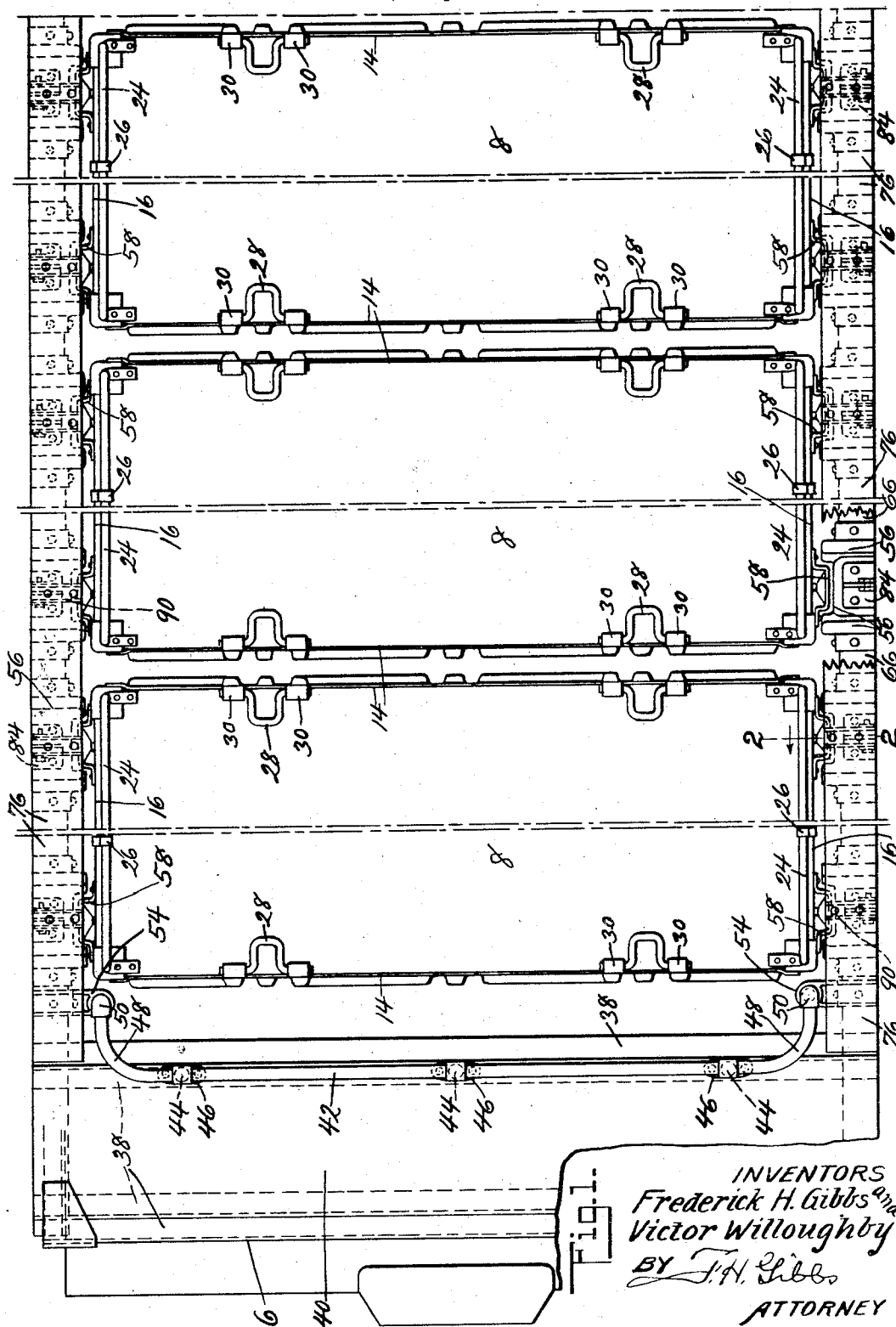
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F. H. GIBBS ET AL

CONTAINER CAR

Filed Sept. 19, 1927

2 Sheets-Sheet 1



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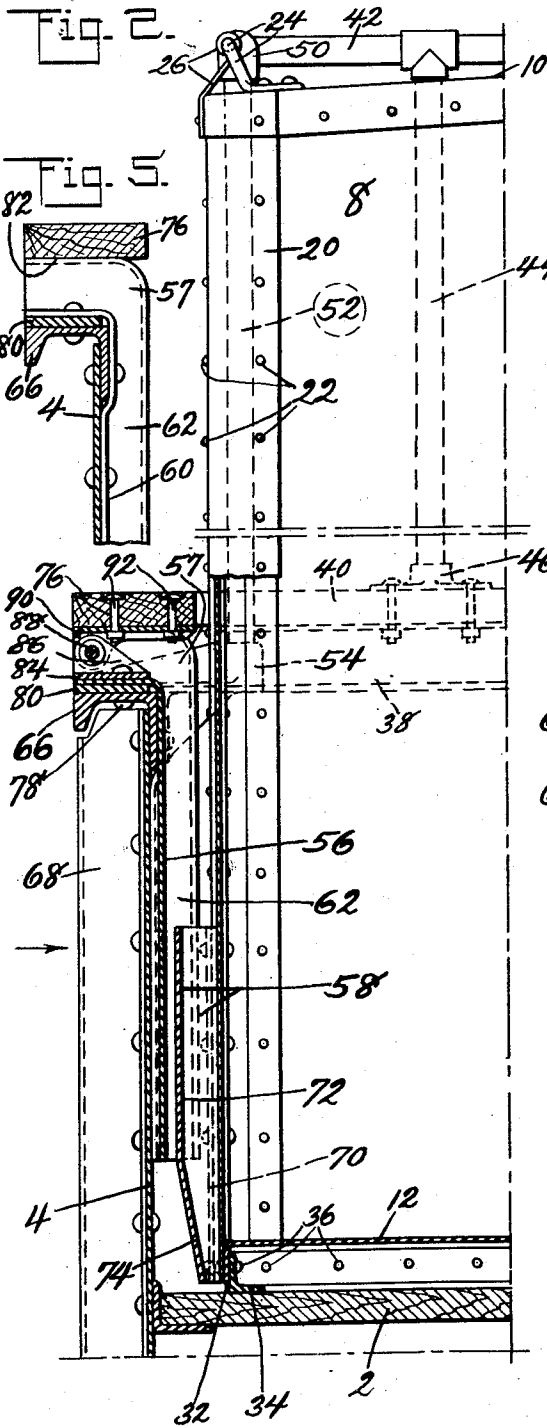
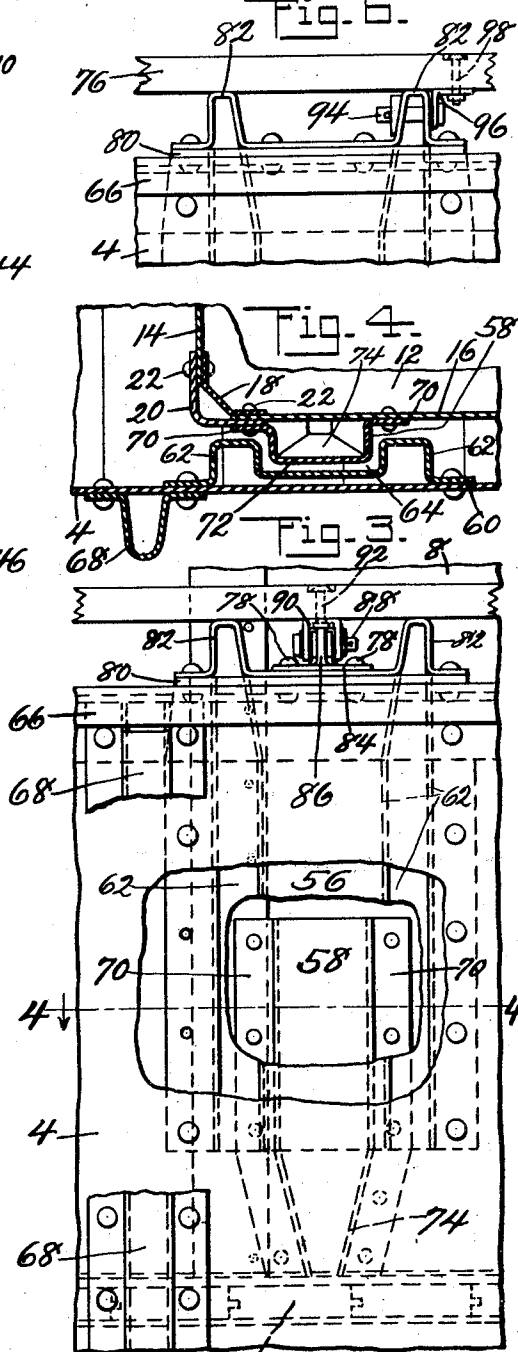
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2 Sheets-Sheet 2



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UNITED STATES PATENT OFFICE.

FREDERICK H. GIBBS, OF BROOKLYN, NEW YORK, AND VICTOR WILLOUGHBY, OF RIDGEWOOD, NEW JERSEY, ASSIGNORS TO AMERICAN CAR AND FOUNDRY COMPANY, OF NEW YORK, N. Y., A CORPORATION OF NEW JERSEY.

CONTAINER CAR.

Application filed September 19, 1927. Serial No. 220,451.

Reference is had to the accompanying drawings which 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.

In said drawings:

Figure 1 is a broken fragmentary top plan view of a car showing the present invention;

Fig. 2 is a sectional view on the line 2—2, Fig. 1;

Fig. 3 is a side elevation of a portion of the car, taken in the direction of the arrow in Fig. 2, certain parts being broken away;

Fig. 4 is a sectional view on the line 4—4, Fig. 3;

Fig. 5 is a detail side elevation of the upper portion of one of the guide members with its associated running board, the guide member being secured to the side wall of a car which latter is shown in section, and

Fig. 6 is a fragmentary side elevation of a car showing a modification of the running board support of the present invention.

This invention refers broadly to carriers and more particularly to cars for receiving and transporting containers holding less than carload lots, the cars being designated usually as container cars.

An object of the present invention is the production of a car adapted to transport less than carload lot containers, which, when loaded with such containers, shall comply with the Interstate Commerce Commission safety requirements.

Gondola cars, since metal has been so commonly employed in their construction, have been constructed with side walls adapted to carry a substantial part of the load and such side walls usually have top and bottom chords comprising stiffening angles which may be standard angles or bulb angles as desired. In the drawings accompanying this application the side walls are shown as plate girders with top chords or compression members in the form of bulb angles which extend a substantial distance outwardly from the vertical side walls of the car and above such angles are mounted running boards.

Another object of this invention is the pro-

vision of a container car having means for guiding the containers into position and for retaining them in such position against lateral shifting.

Another object of the invention is to provide a container guiding means secured to the side wall of a car of the gondola type which will have formed integral therewith a means for supporting a running board above the top chord of the side wall and in hinged relation.

Other objects and advantages of this invention will be apparent from the following description taken in conjunction with the accompanying drawings, in which a car is shown which is of the gondola type and has a floor 2, side walls 4 and end walls 6.

The car is adapted to receive a plurality of containers designated generally at 8, preferably arranged side by side as shown in Fig. 1, said containers comprising top and bottom portions 10 and 12, respectively, and side and end portions 14 and 16, respectively. Referring now to Fig. 4, the sides and ends are connected by a member 18 and a corner angle 20, riveted to said sides and ends as at 22. The top portion of each container is provided with a hand rail section 24 having ends bent and flattened to form feet for fastening same to the container, and mounted intermediately in brackets 26 and so arranged that when the containers are in position in the car a substantially continuous hand rail is provided for all of said containers.

The containers are further provided with opposed pairs of loops 28 secured within keepers 30 whereby the containers may be lifted from or placed into the car by suitable tackle.

The bottom portion 12 of the containers is marginally flanged as shown at 32 and reinforcing angles 34 are secured to said flanges as by rivets 36 to provide a reinforced supporting base for the container. The containers are provided with suitable doors which may be arranged on the side or end walls as desired, but inasmuch as the specific construction of the doors forms no part of the present invention, the same are not shown.

It has been found desirable not to completely fill the lading zone of the car from end to end with containers but adjacent each

end of the car and across the lading zone there are secured spaced Z bars 38 and to these bars suitable planking is secured forming end platforms 40 at each end of the car. For safety purposes the platforms 40 are provided with hand rails 42 supported by posts 44 secured to the platforms by sockets 46 or the like. The ends of the hand rails 42 are bent as shown at 48 and secured to couplings 50 carried by end posts 52 the lower ends of which are secured to castings 54 secured to the side wall of the car. From the description just above it will be apparent that there is provided a hand rail which is substantially continuous completely around the car thus affording adequate hand holds so necessary for the safety of trainmen.

The invention particularly comprehends the provision of guiding and retaining means for the containers and as clearly shown in Fig. 1 said guiding means comprises opposed pairs of pressings 56 which cooperate with complementary means in the form of stakes indicated generally at 58, the latter being formed with or secured to the containers.

The particular guiding means 56 comprises preferably an angular pressing which is of the cross sectional form shown in Fig. 4 having attaching flanges 60 and spaced ribs 62 which define between them a recess 64; the pressing being secured to the inner face of the side wall 4. The side wall has secured along its upper edge a top chord 66 which is in the instance shown a bulb angle and said side wall is provided with external spaced vertical stakes 68 for reinforcing purposes. The spaced ribs 62 diverge at their upper ends to gain more metal to provide a greater depth above the top chord 66 (for a purpose hereafter described) and to provide a relatively wide space therebetween to take the stake 58 to enable the container to be easily guided into the car.

The complementary member 58, as before mentioned, is substantially a stake and is of the form shown in cross section in Fig. 4 and comprises a plate having the attaching flanges 70 by which said stake is secured to a container and an intermediate vertical corrugation 72 which is so formed as to be received within the recess 64. The lower end of the stake is tapered as shown at 74 in Fig. 3 and said corrugation is of such size that it is loosely received within the recess 64. It is to be noted that there is no wedging action or engagement between the guiding means 56 and the stake, but the engagement of the stake with the guiding means is such that a certain amount of play may be had between these parts should there be any unevenness in the seating of the container or should the parts become distorted.

For example, should the floor of the car become warped, it is apparent that the container will nevertheless be properly seated with the stake in engagement with the guiding means because of the relative size of these two parts.

This invention also contemplates the provision of a running board indicated at 76 and to provide a support therefor the pressing 56 is, as before mentioned, of angular form having the upper end thereof bent at substantially right angles as at 57. Said bent end is secured to the compression member 66 by rivets 78 or the like which pass through said member 66 and a bearing plate 80. The ribs 62 are also continued with the angular portion 57 forming supports 82 upon which the running board rests, as clearly shown in Fig. 5. The supports 82 are of greater height than the ribs 62, due to the divergence of the upper end of the latter, as before mentioned. For mounting the running board for swinging movement a bracket 84 is provided which is mounted between the supports or rests 82, the bracket being of inverted T-shape in cross section providing a rib 86 to which is pivotally connected by means of a pintle 88 the U-shaped hinge plate 90 carried by the running board and secured thereto by means of carriage bolts 92.

Fig. 6 discloses a modification of the running board mounting means in which a bolt 94 extends through one of the supports 82 and carries an angle 96 which is connected to the running board 76 by means of carriage bolts 98. The running board 76 shown in this figure may be swung on the bolt 94 as will be apparent.

What is claimed is:

1. In combination with a car having side walls, a plurality of containers in said car, guides secured to the side walls and extending over the tops of said walls, running boards mounted on the extensions of said guides, and means on the containers cooperating with the guides to position said containers.

2. In a car having side walls, a plurality of containers, means secured to the tops of said side walls and extending down said side walls to guide the containers into the car, and running boards secured to said means.

3. In a car having plate girder side walls and compression members secured to the upper edge thereof, a plurality of opposed pairs of guides secured to said side walls and having their upper ends secured to said compression members to form supports, a running board mounted on said supports, containers in said car, and means on said containers cooperating with the guides for guiding the containers into the car.

4. In a car having side walls and compression members along the upper edge thereof,

containers in the car, and means for guiding the containers into the car comprising a plurality of opposed members secured to the side wall and having their upper ends secured to the compression member and so formed as to provide running board supports.

5. In a car having side walls, guides secured to the side walls and having angular upper ends forming supporting elements and a running board secured to said supporting elements.

6. In a car having side walls, guides secured to the side walls and having the ends thereof formed into supporting elements, a running board mounted on the supporting elements, containers in the car, and means on the containers cooperating with the guides for directing the containers into the car and for retaining the containers in position in the car.

7. In a car having side walls, a plurality of containers, and means for guiding the containers into the car comprising recessed members secured to the side walls of the car and having angular upper ends forming running board supports.

8. In a container car, a guide for the containers comprising a recessed element secured to the side wall of the car and having its upper ends bent to form a running board support.

9. In a container car having side walls and containers between said walls, means for guiding and retaining the containers and for mounting a running board comprising a plurality of opposed recessed elements secured to the side walls and having their upper ends bent to form supporting elements, a running board hingedly secured to said bent ends and supported thereby, and stakes secured to the containers and loosely cooperating with said recessed elements.

10. In a car having side walls and a plurality of removable containers, cooperating elements on the side walls and containers for guiding the latter to position, the elements on said side walls extending outside of the lading zone of the car and being so formed as to support a running board.

11. In a container car having side walls and removable containers, a plurality of vertical container guides secured to the side walls of the car and running boards secured to the upper ends thereof.

12. In a container car having side walls and removable containers, a plurality of vertical container guides secured to the side walls of the car and running boards secured to the upper ends thereof and extending into the lading zone adjacent the containers.

13. In a container car, container guides secured to the side walls thereof, and a running board secured to said guides.

14. In a container car, vertically arranged container guides secured to the side walls thereof, and a running board hingedly secured to said guides.

15. In a container car, vertically arranged container guides secured to the side walls thereof, and a running board hingedly secured to said guides and extending into the lading zone of the car.

16. In a container car, vertically arranged container guides secured to the side walls thereof, a running board hingedly secured to said guides and normally extending into the lading zone of the car, and means on the containers cooperating with the guides to direct the containers into the car and to retain them against excessive lateral shifting therein.

In witness whereof we have hereunto set our hands.

FREDERICK H. GIBBS.
VICTOR WILLOUGHBY.