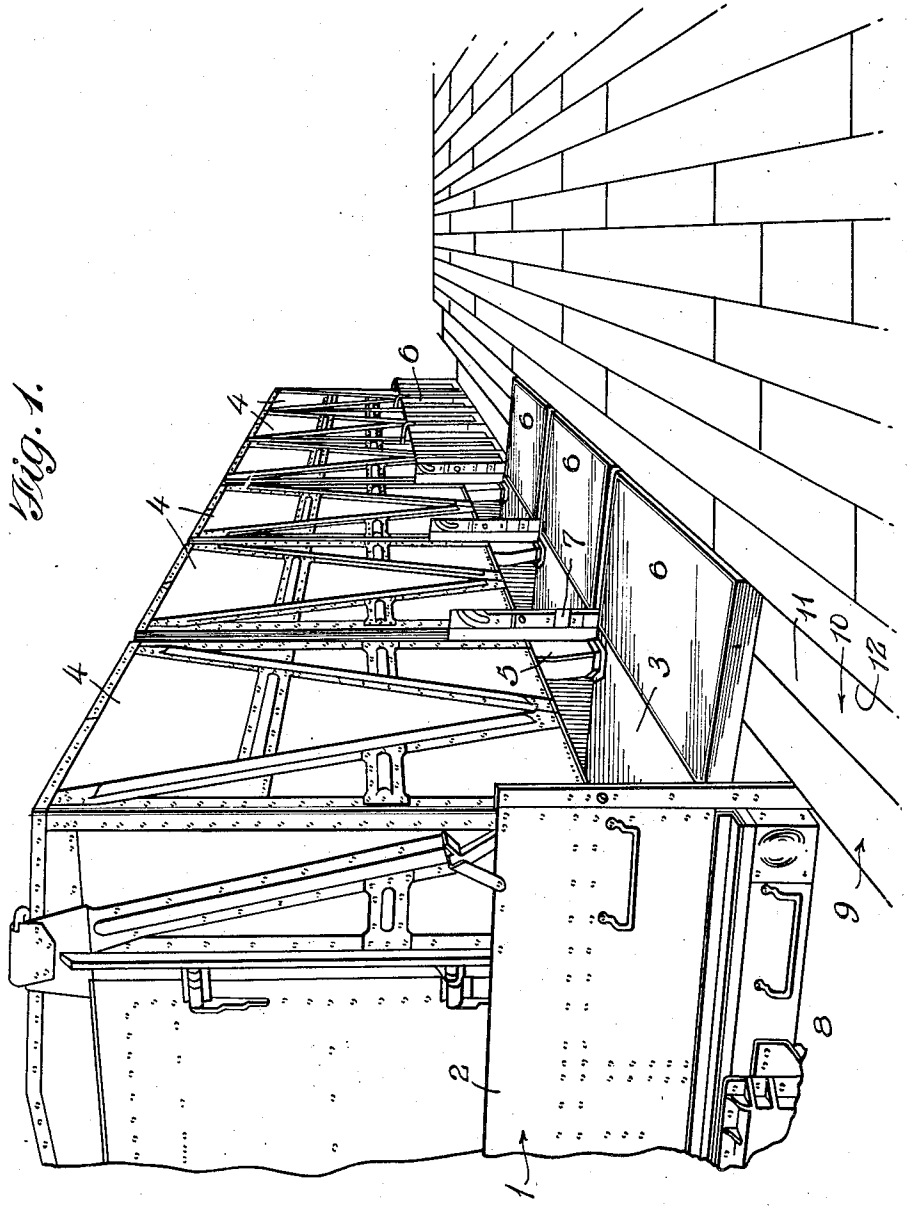
June 8, 1937. G. C. WOODRUFF 2,083,178

MEANS FOR USE IN LOADING AND UNLOADING CONTAINER CARS

Original Filed May 27, 1935 2 Sheets-Sheet 1

Fig. 1.



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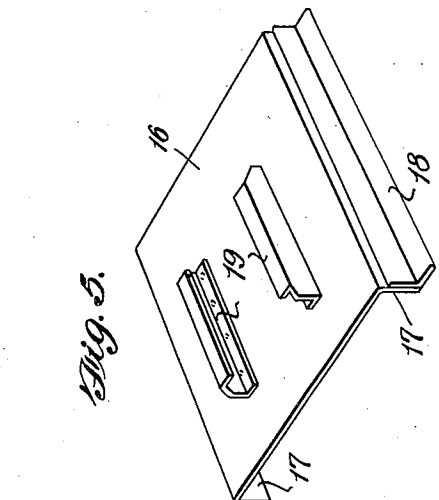


Fig. 5.

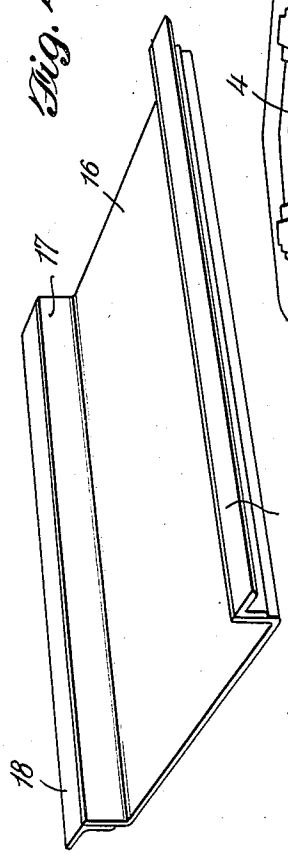


Fig. 4.



Fig. 3.

Fig. 2.

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MEANS FOR USE IN LOADING AND UNLOADING CONTAINER CARS

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Original application May 27, 1935, Serial No. 23,798. Divided and this application April 7, 1936, Serial No. 73,163

1 Claim. (Cl. 14—72)

The present application is a division of my prior application, Serial No. 23,798, filed May 27, 1935.

This invention relates to means for use in loading and unloading container cars, and particularly in the transfer of leg-type containers by means of power or manually operated lift-type trucks between a loading platform and a container car standing on a track alongside the same and in the transfer of containers between cars on adjacent parallel tracks, as well as the transfer of containers between a container car and a loading platform across an intervening car, and vice versa.

The main object of the invention is to provide novel means in the form of removable and interchangeable bridge planks or gang planks which are adapted to bridge across and connect container compartments of cars standing on adjacent tracks, so that containers may be conveniently shifted between such cars and so that containers may be transported from a car to a loading platform through a compartment of an intervening car lying between the same and the platform, and vice versa.

A further object of the invention is to provide a novel construction of removable and interchangeable bridge plank or gang plank for this purpose.

With these and other objects in view, the invention consists of the features of construction, combination and arrangement of parts, hereinafter fully described and claimed, reference being had to the accompanying drawings, in which:—

Fig. 1 is a perspective view showing a loading platform and a container car arranged alongside the same in position to be loaded or unloaded, with some of the drop doors of the car let down and fitted in their receiving recess in the platform to serve as gang planks.

Fig. 2 is a cross-sectional view through a part of the loading platform and two container cars arranged alongside one another on parallel tracks and showing the use of a removable gang plank between the cars for the transfer of containers between the cars.

Fig. 3 is a view showing a modified form of the depression in the loading platform.

Figs. 4 and 5 are top and bottom perspective views of the removable bridge plank or gang plank.

Referring now more particularly to Figs. 1 to 3, inclusive, of the drawings, 1 designates a container car of gondola type which is transversely divided by bulkheads 2 into container receiving compartments 3 each adapted to receive a container 4 of a type having supporting legs 5 to rest upon and support it above the floor of its receiving compartment, each compartment being provided at its opposite sides with drop doors 6 hinged at their lower edges and adapted to swing outwardly and downwardly to a vertical position or to a substantially horizontal position, in which latter position the doors may be utilized to serve as gang planks to bridge the space between the container compartment and a loading platform. The bulkheads are provided at the sides of the car with combined side posts and door stops 7 between which the doors close and to which the doors may be fastened by bolts or other fastening means in closed position.

In Fig. 1 of the drawings I have shown the car 1 arranged on a track 8 for loading and unloading operations alongside a loading platform 9, which platform may be constructed of concrete, wood or any other suitable material or combination of materials. This platform, in accordance with my invention, is provided along its marginal edge adjacent the track with a depressed portion or recess 10 providing a supporting or abutment surface 11 and a vertical abutment shoulder 12. The recess 10 is of a suitable width to receive that portion of a door 6 which laps over upon the platform when the door is let down and is of a depth, in the region of the shoulder 12, at least, corresponding substantially to the thickness of the door, so that the upper surface of the let down door will lie flush or substantially so with the upper surface of the body of the platform. When thus disposed the door of any car compartment facing the platform will provide a gang plank bridging the gap between the compartment and main surface of the platform over which a lift-type truck 13 of usual or suitable type may travel to dispose its lifting platform beneath the container for the purpose of lifting said container and transferring it from the compartment to the loading platform. By the provision of this depression in the platform it will be seen that the drop door will be braced and sustained in let down position to adapt it to effectually stand the weight of the truck and container without injury, and that, as the door lies flush with the upper surface of the platform, the wheels of the truck may pass freely over the joint without subjecting the door to injurious shocks or jars or without liability of injury to the free edge of the door by abutting contact therewith. The bottom of abutment surface 11 of the recess may slope at an out-

ward and downward angle from the shoulder 12, as shown in Figs. 1 and 2, or be stepped or otherwise constructed, as shown in Fig. 3, to provide an outer recess 14 beyond the door supporting surface 15, so that a deepened recess portion may be furnished to accommodate projecting locking or other fittings upon the face of the door.

In Figs. 2, 4 and 5 I have shown means in accordance with my invention for rendering possible the transfer of containers between cars arranged alongside one another on parallel tracks, and between such cars and a loading platform. The means provided for this purpose comprises a bridge plate or gang plank 16, of a suitable width for the support and passage thereover of a lift-type truck of the character described and to fit conveniently within the door openings of the container compartments of cars, and of a suitable length to extend between and rest upon the floors of transversely alined compartments of two container cars arranged side by side on parallel tracks. This bridge plate may be made in the form of a trough-shaped or channel-shaped body of sheet steel, the upturned side walls or flanges 17 of which have secured thereto angle metal stiffeners 18 forming therewith guard rails at the sides of the plank to prevent displacement of the wheels of the truck thereover, which stiffeners may be riveted or otherwise secured to the sides 17. Also secured to the underside of the body of this bridge plate or plank are channel-shaped stiffening members 19, which are of less length than the length of the plank and terminate at their ends a sufficient distance from the ends of the plank to allow the latter to lap over upon the floors of compartments of parallel cars varying to different degrees in their distance apart. Fig. 2 shows the use of such a bridge plank extended between transversely alined compartments of a car 1 arranged alongside a loading platform and between the same and a car 1a standing on a track adjacent to that on which the car 1 is arranged. In placing this bridge in position the drop doors at the adjacent sides of the compartments of the cars 1 and 1a to be connected are let down to a pendant vertical position and the bridge plank then disposed to extend across the gap between the open sides of the compartments and to rest on the floor of said compartments, the bridge when thus arranged forming a passageway over which a lift-type truck may travel between the compartments for transferring a container from a compartment of one car to the alined compartment of another car or for transferring a container from the car 1a to the loading platform or from the loading platform to the car 1a across the car 1. When the bridge is so disposed for use the channeled bottom stiffeners 19 may serve as stops for engagement with the upper edges of the open doors to prevent the bridge plank from shifting out of position and dropping down between the cars under pressure of the wheels of the truck engaging the end edges of the bridge plank. By employing such a bridge plank it will be evident that provision is made for the ready and convenient transfer of containers between parallel cars arranged on adjacent tracks and between such cars and a loading platform in a manner not possible heretofore without the use of hoisting apparatus, and whereby time and labor may be saved and greater convenience and facility afforded in loading and unloading cars in a yard or at a station.

From the foregoing description, taken in connection with the drawings, the construction, mode of operation and advantages of my invention in the loading and unloading of cars will be readily understood by those versed in the art without a further and extended description. While the structural embodiments disclosed are preferred, it will, of course, be understood that changes in the form, proportion and arrangement of parts may be made within the scope of the appended claims without departing from the spirit or sacrificing any of the advantages of the invention.

What I claim is:—

A bridge plank for bridging the space between cars arranged side by side for the transfer of lading over the intervening gap between said cars, said plank comprising a body adapted to bridge said gap and to be supported at its ends upon the floors of the cars, said body being U-shaped in cross-section and provided at its sides with integral upstanding flanges forming guard rails, means upon the underside of the body for reinforcing the same and acting as abutments to prevent undue shifting of the plank laterally of the cars, and L-shaped stiffeners having vertical webs extending along and to the guard rail flanges and horizontal webs extending laterally therefrom outwardly from said flanges and lying flush with the upper edges thereof.

GRAHAM C. WOODRUFF.