

April 20, 1926.

W. P. KELLETT

1,581,746

TRANSPORTATION MEANS

Filed Jan. 26, 1925

2 Sheets-Sheet 1

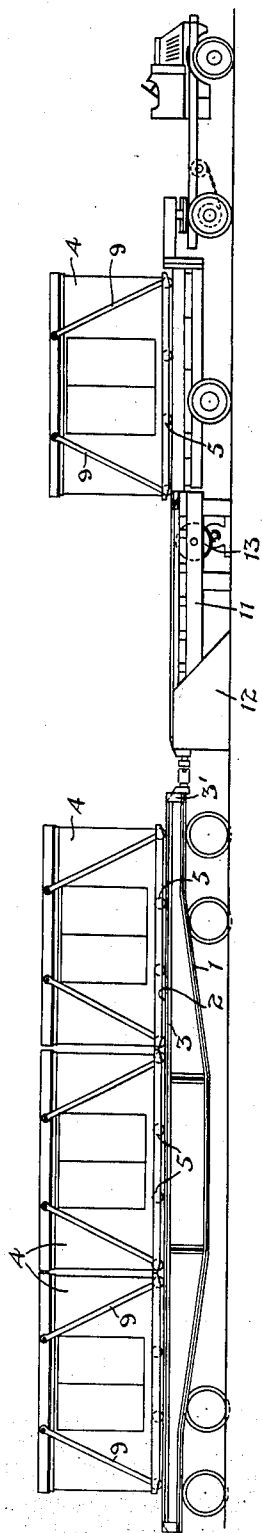


Fig. 1.

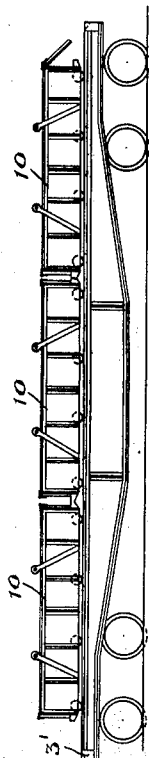


Fig. 2.

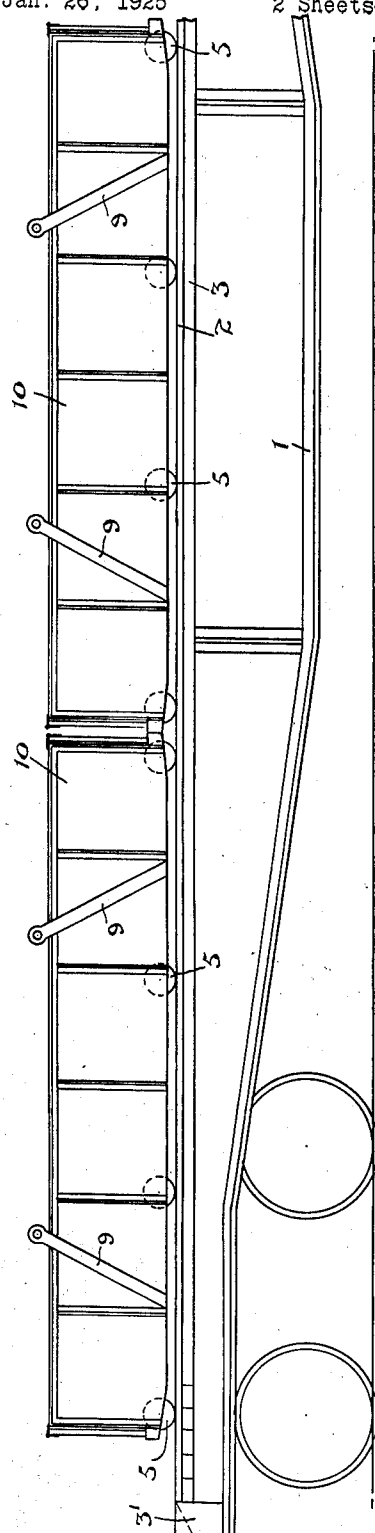


Fig. 3.

Inventor.
William P. Kellett
By J. J. O'Donnell
Att'y.

April 20, 1926.

W. P. KELLETT

1,581,746

TRANSPORTATION MEANS

Filed Jan. 26, 1925

2 Sheets-Sheet 2

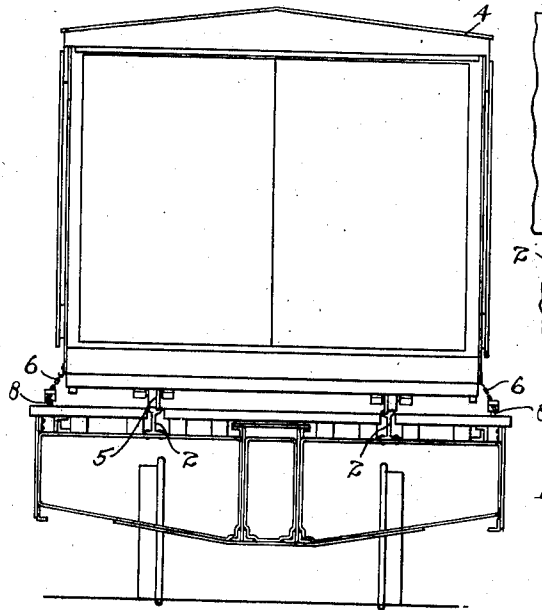
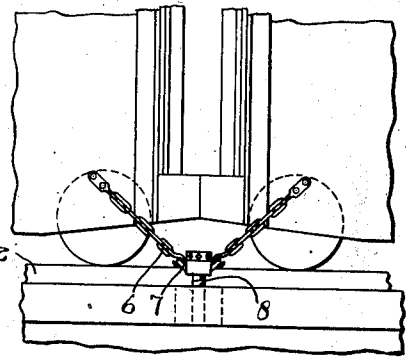


Fig. 6.

Fig. 4.

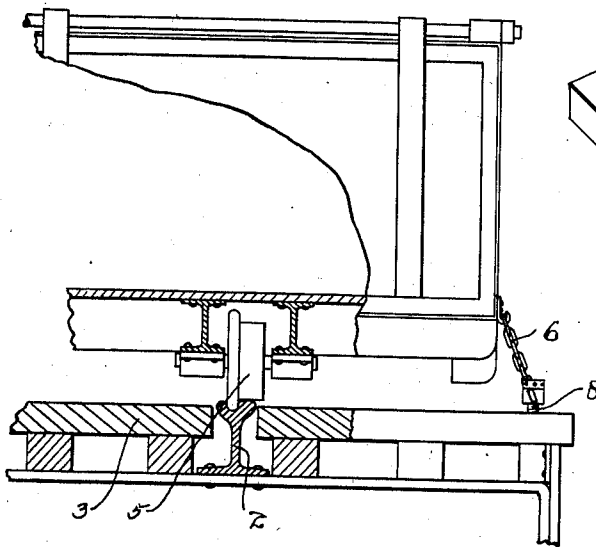


Fig. 5.

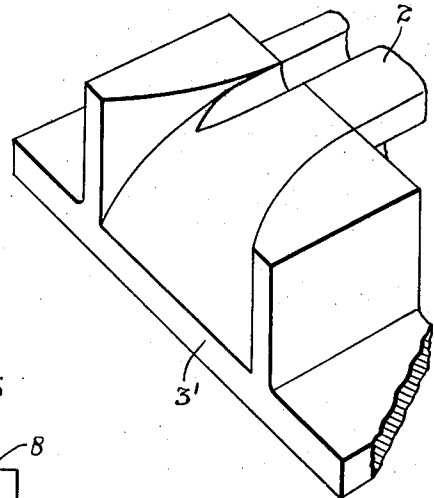


Fig. 7.

Inventor.

William Platts Kellett.

by H. J. S. Dennisow atty.

UNITED STATES PATENT OFFICE.

WILLIAM PLATTS KELLETT, OF BRANTFORD, ONTARIO, CANADA.

TRANSPORTATION MEANS.

Application filed January 26, 1925. Serial No. 4,852.

To all whom it may concern:

Be it known that I, WILLIAM PLATTS KELLETT, a subject of the King of Great Britain, and resident of the city of Brantford, county of Brant, Province of Ontario, in the Dominion of Canada, have invented certain new and useful Improvements in Transportation Means, as described in the following specification and illustrated in the accompanying drawings, that form part of the same.

The principal objects of the invention are to reduce the cost of the transportation of goods, eliminating the losses on demurrage of expensive railway rolling stock and motor truck equipment in loading and unloading, and to devise a system which will enable the rapid loading or unloading of auxiliary car bodies upon or from a train of railway cars.

A further object is to utilize the maximum railway car capacity in the handling of less than carload shipments.

A still further object is to provide an equipment which will be comparatively inexpensive and can be adapted to standard railway cars.

The principal feature consists in providing sectional demountable car bodies with truck wheels so arranged that the bodies may be moved longitudinally from one car to another upon track-ways mounted longitudinally of the railway cars.

Further features of importance consist in the novel manner of securing the sectional car bodies upon the railway cars.

In the accompanying drawings, Figure 1 is a side elevational view of a railway car and its full equipment of sectional box car bodies arranged adjacent to an unloading platform and also showing a delivery truck for transporting the sectional body.

Figure 2 is a side elevational view of a railway car showing a sectional open type of body for handling bulk materials, such as coal, stone, etc.

Figure 3 is an enlarged elevational view of a portion of a railway car of the open type of sectional car body.

Figure 4 is an end elevation of one of the box car sections showing the railway car body in cross section therebeneath.

Figure 5 is an enlarged detail of the rail support and the wheel structure of the car section.

Figure 6 is an enlarged detail of the means for fastening the abutting ends of two car sections.

Figure 7 is an enlarged perspective view of one of the rail end blocks.

It has been proposed to devise demountable truck bodies as goods containers and to mount the same on wheels and special railway cars with transversely arranged trackways have been provided to receive such trucks or demountable truck bodies or containers, but such containers have very limited capacity as their length is limited to the width of the railway car and their width is limited according to street traffic ordinances.

The present system contemplates the use of demountable truck bodies in the form of sectional railway car bodies and such bodies are formed with the maximum capacity of length for proportional railway car load weights and the maximum of width and height.

In order to carry this invention into effect, it is necessary to provide railway cars especially fitted with rails running lengthwise of the deck.

In the accompanying drawings, the standard flat car 1 is shown provided with longitudinally arranged rails 2 and a raised supplementary deck 3. The rails 2 extend from end to end of the deck of the car and are here shown of the grooved type but a standard T-head rail may be used, if desired.

Beveled blocks 3' are arranged at each end of the rails 2 and these are provided with flaring flanges and are adapted to guide the wheels of the sectional car bodies to the rails as said bodies are moved from car to car, the bevel and flange surfaces taking care of the differences in alignment of the rails of the cars.

The sectional car bodies 4 shown in Figures 1 and 4 are of the box car type, having suitable doors in the sides and ends so that they may be loaded or unloaded from either of the ends or sides, consequently they will not require to be specially placed on the car. These sectional car bodies are made up of strong steel structures and they are supported upon the flanged wheels 5, which engage the rails 2.

A pair of wheels are arranged as close as possible to each end of the car and two other pairs are arranged intermediate of the length.

The distance between the outer end wheels and the adjacent inner wheels is slightly greater than the maximum span between the ends of the rails 2 of one flat car and the next coupled thereto, so that when the car body section is moved lengthwise on the rails on top of the flat car the outer end wheels will reach and rest upon the rails of the adjacent car before the next set of wheels leave the rails of the car from which the body is being moved.

In order to accomplish this result the sectional car body must be at least three times the length of the maximum distance between the rail ends of a pair of coupled cars, approximately 14 ft. and wheels are arranged at the ends and at a distance of one-third the length from each end. The car is so constructed that there is always a cantilever support for the end of the body projecting over the end of the railway car, which will ensure the projected end reaching the next car rail support at approximately the same level and without danger of the car tipping endwise, no matter how the car section may be loaded.

This arrangement of wheels on the body section is very important as it enables the car sections to be moved lengthwise of a train of railway cars from car to car without danger, as there will always be at least three sets of wheels on the rails in passing from one car to another.

The sectional car bodies fit closely together upon the top of a railway car with the end beams abutting, and each section is provided with a chain coupler 6, detailed in Figure 6, which is adapted to be hooked into the collar 7 of a screw jack 8 rigidly mounted with respect to longitudinal movement on the car deck. The jacks are arranged at each end of the car sections and the chains 6 are coupled thereto and the jacks are then tightened down, thus drawing the car sections tightly together and holding them down tightly to the rails, bracing them against end and side play.

The car sections are provided with hoisting bars 9 which extend diagonally upward from their lower frames and these bars are provided with suitable eyes at the top ends to receive the hooks from a hoist of any suitable kind for lifting the sections bodily.

The sectional car bodies 10 illustrated in Figures 2, 3 and 5 are of the open top steel type and are provided with wheels and fastening equipment similar to the sections 4. They are also provided with hoisting bars the same as are the sections 4 and the ends are preferably hinged at the top to swing outwardly so that they may be used on dumping trucks for unloading.

In Figure 1 an unloading platform 11 is shown at the end of a line of railway rails and the abutment 12 is provided with a

coupler to engage the coupler of the railway car to hold it and the attached train securely to the platform. Tracks corresponding with the tracks on the cars are arranged on the platform to guide the car sections in their placing or removal.

A suitable hauling device 13 may be installed below the platform 11 to operate a cable which may be extended along the top of the railway cars and coupled to the car sections wherever desired to haul the car sections along the top of the train either in loading or unloading. The platform is used in conjunction with a suitable type of motor truck, the one here shown being of the trailer variety and which is provided with suitable track-ways to receive the wheels of the sectional car bodies. Trucks of this type are at present in use and are provided with cable drums which may be used in drawing the car sections to the platform or they may unload directly from the cars.

In the operation of the transportation means described the sectional car bodies are loaded and carried by means of motor trucks to the railway where they are rolled on to the car arranged in a suitable loading location, preferably at a loading platform such as described.

The sectional car bodies are moved lengthwise of the train and are anchored to the cars by means of the couplers 6 in the manner described, providing a complete and uniform car body equipment of substantially the total car capacity.

The car body sections may be handled from truck to car and car to truck by means of a suitable hoisting apparatus such as an overhead or gantry crane if desired but such an equipment will not be available at all places where the cars may be sent, consequently the longitudinal track arrangement enabling the car sections to be moved from car to car is a very important feature of the system.

It will readily be seen that by providing sectional car bodies such as described a standard flat car, which is the least expensive of all railway car equipment, can be readily converted to a gondola, a coal car, a box car, or refrigerator car, as the sections may be made to suit any requirement.

A means such as described will be very effective in the handling of freight and will reduce the cost of transportation to the minimum, as they can be taken from warehouse to warehouse without unloading.

What I claim as my invention is:—

1. A transportation means comprising the combination with standard railway flat cars provided with longitudinal track-ways on the decks thereof, of demountable car-bodies having wheels engaging said track-ways so arranged in relation to the body structure

that either end of the body may be projected beyond the flat car without support, a distance sufficient to bring the outer support into supporting contact with the next adjacent coupled car, without disturbing the horizontal equilibrium of the body, whether loaded or unloaded. 20

2. A transportation means comprising the combination with standard railway flat cars provided with longitudinal track-ways on the decks thereof, of demountable car-bodies having wheels engaging said trackways arranged at the ends of said body and at a distance substantially one-third the length of the body from each end, the structure of the body being such that two-thirds 25

of the length from either end thereof will be of such weight as to support the remaining portion in suspension while carrying the capacity load in the movement of the body on its wheeled supports from one car to another.

3. A transportation means, comprising, railway flat cars provided with longitudinal track-ways on the decks thereof, end blocks at the ends of the tracks beveled downwardly from the top of the rail and having flaring side flanges, and sectional car bodies having wheels to engage said trackways and arranged to span the space between the tracks of coupled cars. 30

WILLIAM PLATTS KELLETT.