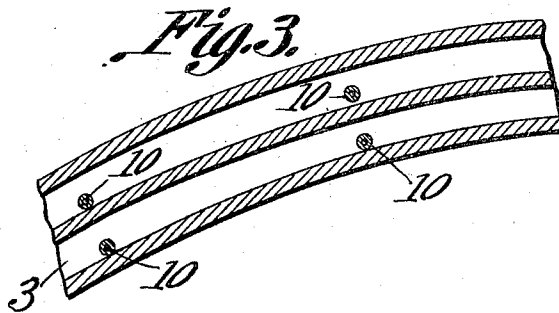
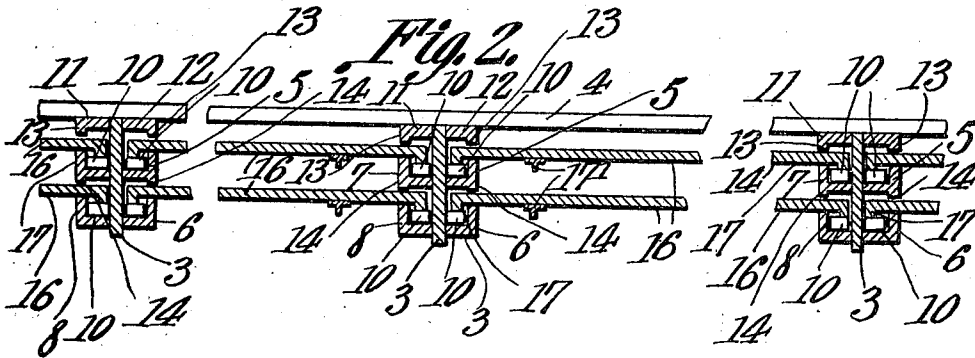
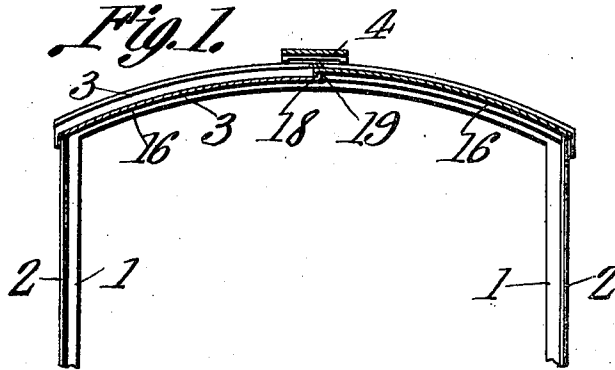


S. C. LINDSAY.
 CONVERTIBLE CAR.
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1,043,326.

Patented Nov. 5, 1912.



Witnesses
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UNITED STATES PATENT OFFICE.

SOLOMON C. LINDSAY, OF GREENSBURG, PENNSYLVANIA.

CONVERTIBLE CAR.

1,043,326.

Specification of Letters Patent.

Patented Nov. 5, 1912.

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To all whom it may concern:

Be it known that I, SOLOMON C. LINDSAY, a citizen of the United States, residing at Greensburg, in the county of Westmoreland and State of Pennsylvania, have invented a new and useful Convertible Car, of which the following is a specification.

This invention relates to convertible cars such as are used for carrying freight.

It is well recognized that difficulty is experienced in loading the ordinary box car with certain forms of freight. This difficulty arises principally from the shape, size and location of the doors, which are generally arranged at the sides of the car. Moreover, an equal amount of difficulty and loss of time is experienced in unloading the ordinary box car.

The object of the present invention is to provide a convertible freight car which can not only be loaded with extreme ease and rapidity, but which can be unloaded with the same facility.

Further objects of the invention are generally to improve and simplify the construction of freight cars, as well as to render them more efficient and practical in use and to decrease the expense attending their manufacture and maintenance.

With the foregoing and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of invention herein disclosed can be made within the scope of the claims without departing from the spirit of the invention.

In the accompanying drawings forming part of this specification:—Figure 1 is a transverse vertical section through the upper portion of a car provided with the improvements of the present invention. Fig. 2 is a partial longitudinal vertical section through the construction shown in Fig. 1. Fig. 3 is a transverse vertical section taken on a plane indicated by the line 3—3 of Fig. 2.

Like reference numerals indicate corresponding parts in the different figures of the drawings.

As shown in Fig. 1 the car of the present invention is constructed preferably with side studs or uprights 1 with which are connected in any suitable manner the side boards 2. Extending from the studs 1 on one side of

the car to the studs 1 on the other side of the car, are a suitable number of vertically extending supporting members 3, shown in Fig. 2 of the drawings. Each of the supporting members or plates 3 preferably is curved from end to end as indicated in Fig. 1 so as to conform to the cross sectional shape of the top of the car. Extending longitudinally of the car, and supported upon the different supporting members or roof beams 3 is the usual foot board 4. Each of the supporting members or roof beams 3, preferably, is provided with four track-ways or guide members 5, 6, 7 and 8, the guides 5 and 6 being on one side of the supporting members 3 and the guides 7 and 8 on the opposite sides thereof. Each of the guide members, 5, 6, 7, and 8 preferably consists of horizontally extending members, shown in Fig. 2, connected with or formed integral with the roof beam 3 and having at the outer edge thereof an upstanding or vertical flange which forms the outer wall of the guide member or trough shaped track-way. Each of the track-ways 5, 6, 7 and 8 has journaled therein in any suitable manner a plurality of supporting rollers or anti-friction devices 10, said rollers being preferably journaled in the supporting member 3 at one end and in the vertically extending flange of the track-way at the other end. Mounted above the upper track-ways 5 and 7 and supported on or formed integral with the member 3, are a pair of oppositely extending cover plates 11 and 12 each of which is formed at its outer edge with a depending flange 13. A similar depending flange 14 is provided on the lower surface of each of the track members 5 and 7.

Extending into each of the guide members or track-ways 5, 6, 7 and 8 is a door 16 which, in cross section, is curved to conform to the curve of the roof of the car. Each of the doors 16 is provided at its end edges with a depending flange 17 which prevents its withdrawal from the track-way in which it is located. For the purpose of bracing each of the curved doors or sheets 16, a pair of T-irons 17' are connected with each of said doors, the irons 17' being curved in the same manner as the doors or sheets 16. Each of the doors 16 is of such dimensions as to extend from the edge of the car to the center thereof. In other words each of the doors 16 is capable of covering half of the section of the car between two of the supporting members or plates 3.

When it is desired to close the car, the lower door 16 of each pair of doors is thrown to one side of the car and the upper door 16 of the same pair is thrown to the other side of the car. When it is desired to open the car, the two doors 16 may be thrown to either side of the car as desired. For the purpose of forming a tight joint at the center of the car when the doors 16 are closed, the upper door of each set is provided at one end with a depending flange 18 and the lower door of each set is provided with an upstanding flange 19. When the two doors are swung in opposite directions to closed position, the flanges 18 and 19 contact with each other so as to produce a tight joint or seal. The depending flanges 13 and 14 of the supporting member 3, serve to produce tight joints at the side edges of the doors.

It will be obvious that with a car equipped from one end to the other with doors such as are indicated by 16, the operation of loading the car can be much more readily performed than is possible with the old fashioned side doors.

What is claimed as new is—

1. A convertible car having a plurality of transversely movable arcuate roof sections arranged in pairs, the sections of each pair constantly lapping above the center of the car, cooperating means upon the lapping portions of the sections for limiting the movement of each section relative to the other section, and arcuate means engaging and supporting the arcuate end edges of the sections, said sections being mounted for independent movement along parallel paths.

2. A convertible car having transversely

extending supporting members, upper and lower channeled guides upon each face of each member, anti-friction devices supported within the channels, a plurality of transversely movable roof sections arranged in sets, the sections of each set being interposed between two of the supporting members and extending over the upper and lower guides respectively supported between said members, the said sections being movable independently along parallel paths, and depending means upon the sections and extending into the channeled guides for holding the sections of the roof against lateral displacement, said depending means bearing downwardly on the anti-friction devices.

3. A convertible car having a plurality of transversely extending supporting members, an upper and a lower guide-way on each side of each of said supporting members, a flange depending from the bottom of the upper guide member, a plate mounted above the upper guide member and having a depending flange, a curved door engaging each of said guide members and having depending end flanges located inside of the guide members, an upstanding flange on the upper longitudinal edge of the lower door, and a depending flange on the upper longitudinal edge of the upper door.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

SOLOMON C. LINDSAY.

Witnesses:

DAVID RYDER, Jr.,
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