

Sept. 5, 1939.

D. W. PERIN

2,172,154

FREIGHT CONTAINER

Original Filed Jan. 5, 1929 2 Sheets-Sheet 1

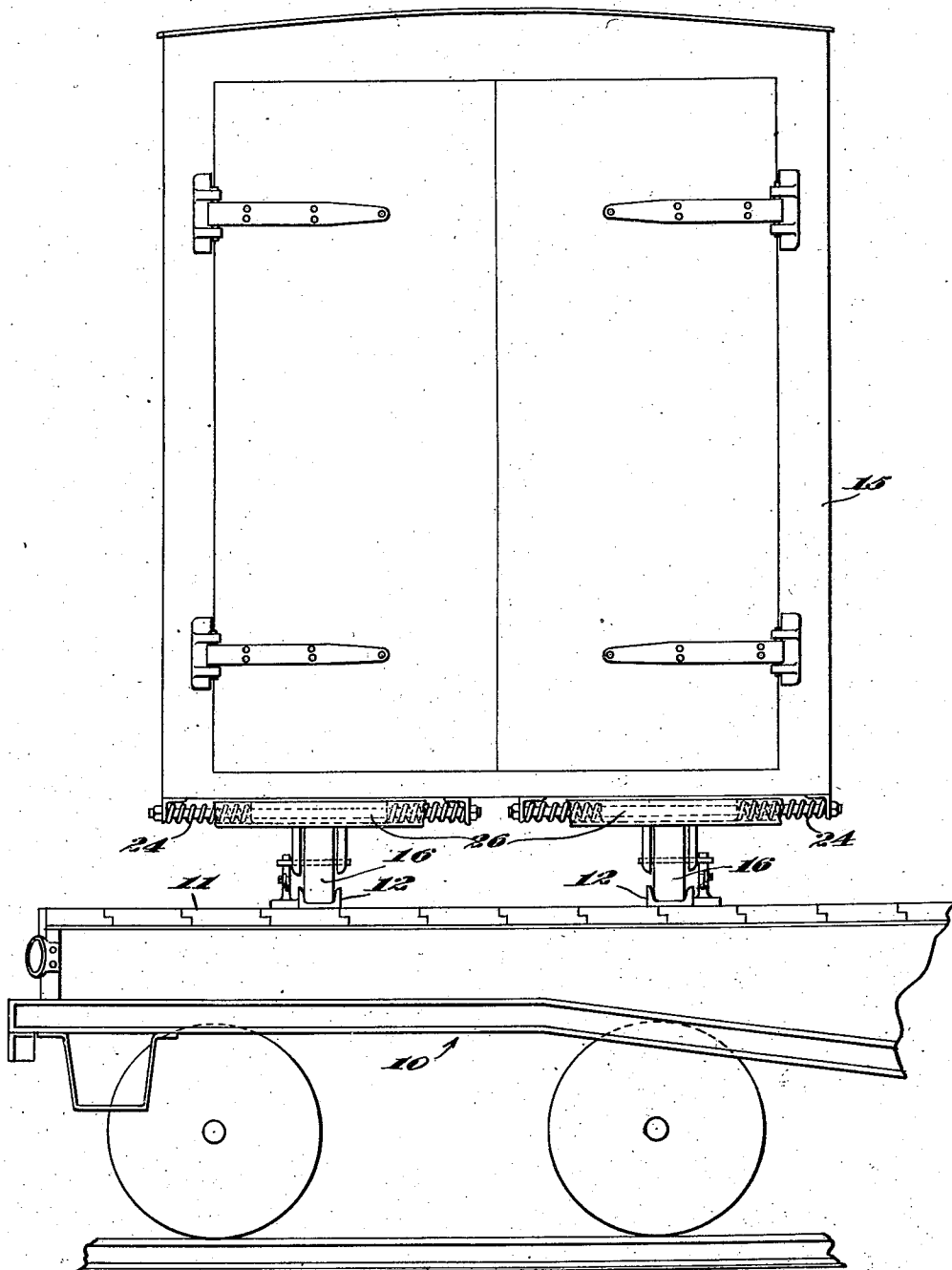


Fig. 1

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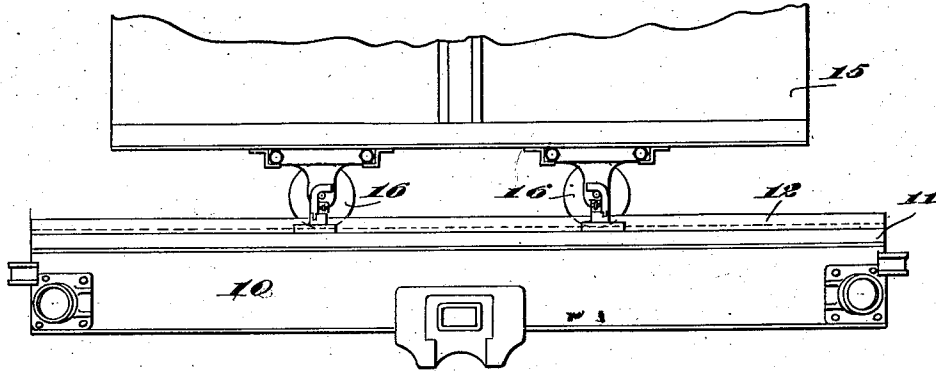


Fig. 2

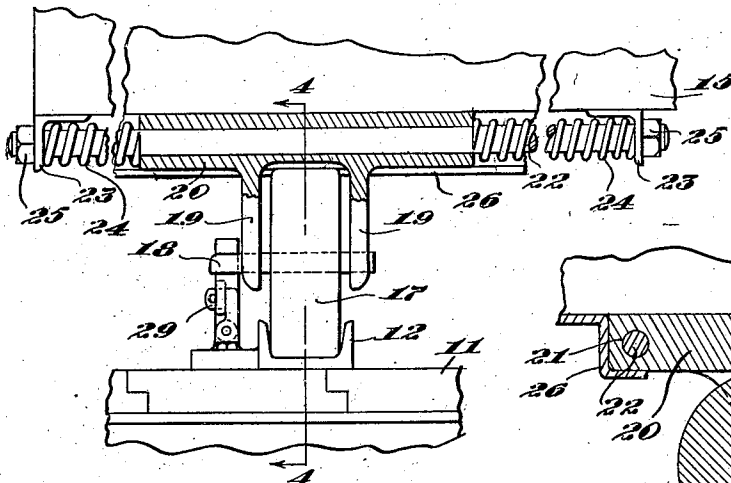


Fig. 3

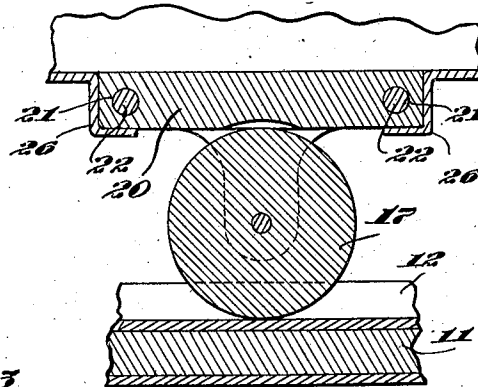


Fig. 4

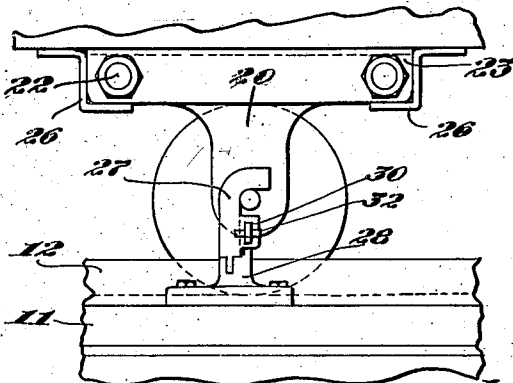


Fig. 5

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UNITED STATES PATENT OFFICE

2,172,154

FREIGHT CONTAINER

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mesne assignments, to Roloff Inc. of Mass.,
Cambridge, Mass., a corporation

Substitute for abandoned application Serial No.
330,502, January 5, 1929. This application
April 27, 1934, Serial No. 722,748

6 Claims. (Cl. 220—1.5)

This invention relates to an improvement in a freight container and more particularly in the manner of mounting the rollers upon the container, and this application is a substitute for my abandoned application No. 330,502, filed January 5, 1929.

Freight containers of the type to which this invention relates are filled at the warehouse or other shipping point, trucked to the freight yards and loaded upon flat cars for transfer from one point to another. The container is provided with rollers and rides upon tracks which extend transversely of the body of the car. The rollers have heretofore been rigidly mounted upon the container and it has been found that if the speed of the flat car is suddenly decelerated, as when the car goes through car retarders or when it strikes another car in the process of making up the trains, there is a tendency for the containers to bump out of the tracks and away from the locks which hold them in place on the car.

The primary object of this invention is to provide for each roller a spring or yielding mounting which is interposed between the roller and the body of the container so that when the condition above mentioned takes place the body of the container will move relative to the rollers while the rollers themselves will remain in place on the tracks on the cars.

Other objects of this invention reside in the particular construction of the roller mountings as will appear from a consideration of the following specification taken in connection with the drawings thereof which form a part thereof, and in which:

Fig. 1 is a side elevation of a portion of a flat car upon which a freight container embodying this invention is mounted;

Fig. 2 is an end elevation of the flat car and the lower portion of the container;

Fig. 3 is an enlarged elevation partly in section of a roller provided with a mounting which embodies this invention;

Fig. 4 is a cross-sectional view of such roller and mounting taken along the line 4—4 of Fig. 3; and

Fig. 5 is a side elevation of the roller illustrating one means for locking the container in position upon the freight car.

In the drawings the reference numeral 10 designates a flat car provided with a platform 11 across which are mounted tracks 12. Supported upon the tracks 12 of the car 10 is a container 15 which is provided with a plurality of rollers 16, there being four such rollers shown in the selected

embodiment. The rollers 16 enter the tracks 12 and guide the container into the position which it is intended that it will occupy upon the car. Each roller comprises a wheel 17 mounted to rotate freely upon an axle 18 which is rigidly supported in arms 19 depending from a suitably formed head 20.

The head 20 of the roller is secured to the under side of the body of the container 15 by a spring mounting which permits a relative movement of the body and roller should occasion therefor arise. The head 20 is provided with a pair of parallel holes 21 through which extend rods 22 of a diameter somewhat less than that of the holes 21 so that the head may reciprocate upon the rods. The ends of the rods are fixed in brackets 23 depending from the frame of the container and are secured in that position by nuts 25. The rods 22 project beyond each side of the head 20 and the portions of the rods 22 between the head 20 and the brackets 23 are surrounded by coil springs 24 which bear against the head 20 and against a bracket 23. The guiding and supporting functions of the rods 22 are supplemented by Z-shaped strips 26 which depend from the frame of the container and which engage the sides of the head 20 parallel to the holes 21. Upon any relative movement of the container and roller in which the heads 20 of the rollers travel over the rods 22, the strips thus assist to guide the rollers.

From the construction thus described it will be noted that the head 20 is supported from the container by strips 26 and is normally held by the springs 24 substantially equidistant from the brackets 23. The roller and container, however, have by reason of the rods 22 a relative movement transversely of the container. It must follow, therefore, that, when the car on which the container is supported is given a sudden jolt, the springs 24 will permit the shifting of the body of the container relative to the casters, thus eliminating any tendency of the rollers to jump out of the tracks 12 under the influence of such shocks.

The container is here shown to be locked on the tracks 12 in the desired position by means of hooks 27 each pivotally mounted upon a base 28 and adapted to engage one end of an axle 18. When the container 15 is being mounted into position the hooks 27 may lie on the platform 11 at the side of the tracks, and after it has reached the proper position, the hooks 27 are raised to engage the axles 18 and thus lock the container in such position (see Fig. 2). The hooks 27 may

be secured in the locking position in any desired manner. In the present case there is provided a tongue 29 projecting from the base 28 which passes through a slot 30 in the body of the hook 27 when the hook is raised. The tongue 29 is provided with an aperture 31 through which a holding pin 32 may be introduced to secure the hook in position.

While one embodiment only of this invention has been shown and described, I am not limited thereto since other embodiments may be made without departing from the spirit and scope of the invention as set forth in the following claims.

I claim:

1. Mounting means for a roller on a less-than-carload-lot shipping container adapted to be placed on a vehicle with the rollers transverse to the direction of movement of the vehicle, which roller includes a head and a freely rotatable wheel supported thereby, said means including a pair of rods which extend through parallel holes in the head of the roller and yielding means for positioning the roller on the rods.

2. Mounting means for a roller on a less-than-carload-lot shipping container adapted to be placed on a vehicle with the rollers transverse to the direction of movement of the vehicle, which roller includes a head and a freely rotatable wheel supported thereby, said means including a pair of rods which extend through parallel holes in the head of the roller, brackets depending from the container which receive the ends of the rods and springs constructed and arranged to bear upon the head to hold the roller normally intermediate the ends of the rods.

3. Mounting means for a roller on a less-than-carload-lot shipping container adapted to be placed on a vehicle with the rollers transverse to the direction of movement of the vehicle, which roller includes a head and a freely rotatable wheel supported thereby, said means including a pair of rods which extend through parallel holes in the head of the roller, brackets depending from the container which receive the ends of the

rods, and springs surrounding the portions of the rods between the head and the brackets for positioning the roller normally intermediate the ends of the rods.

4. Mounting means for a roller on a less-than-carload-lot shipping container adapted to be placed on a vehicle with the rollers transverse to the direction of movement of the vehicle, which roller includes a head and a freely rotatable wheel supported thereby, said means including a pair of rods which extend through parallel holes in the head of the roller, strips depending from the frame of the container parallel to said rods and engaging the head, and yielding means constructed and arranged to bear upon the head and position the roller upon the rods.

5. Mounting means for a roller on a less-than-carload-lot shipping container adapted to be placed on a vehicle with the rollers transverse to the direction of movement of the vehicle, which roller includes a head and a freely rotatable wheel supported thereby, said means including a pair of rods which extend through parallel holes in the head of the roller, Z-shaped strips depending from the frame of the container parallel to said rods and engaging the sides and bottom of the head, and springs constructed and arranged to bear upon the head and position the roller normally intermediate the ends of the rods.

6. Mounting means for a roller on a less-than-carload-lot shipping container adapted to be placed on a vehicle with the rollers transverse to the direction of movement of the vehicle, which roller includes a head and a freely rotatable wheel supported thereby, said means including a pair of rods which extend through parallel holes in the head of the roller, brackets depending from the container which receive the ends of the rods, strips depending from the container parallel to said rods and engaging the head and springs surrounding the portions of the rods between the head and the brackets for positioning the roller intermediate the ends of the rods.

DONALD W. PERIN.