

No. 694,052.

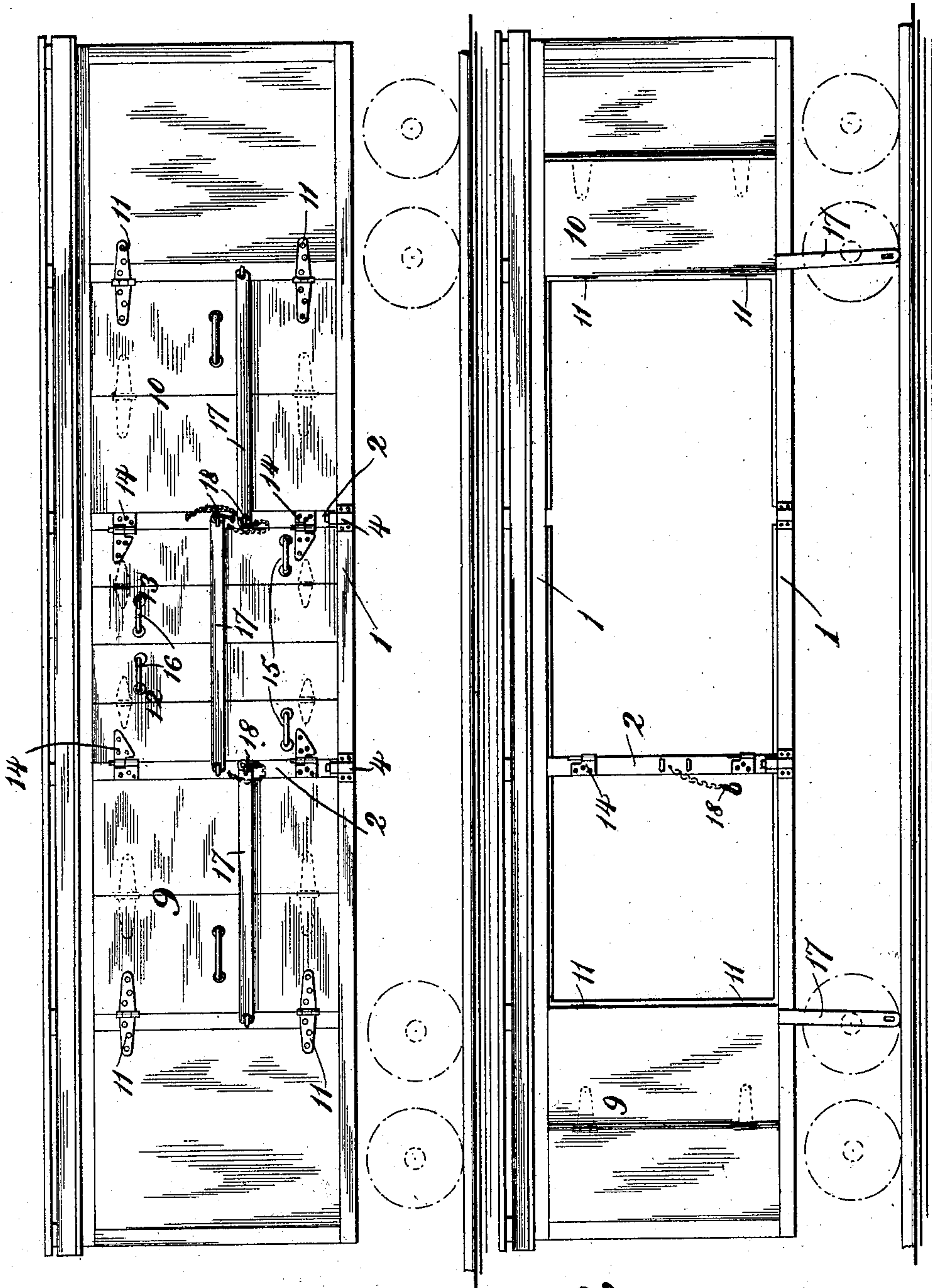
Patented Feb. 25, 1902.

F. P. BUTTS.  
FREIGHT CAR.

(Application filed Nov. 4, 1901.)

(No Model.)

2 Sheets—Sheet I.



WITNESSES:  
*Harry D. Cross.*  
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*Fig. 1.*

*Fig. 2.*  
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# UNITED STATES PATENT OFFICE.

FREDERICK P. BUTTS, OF NEW YORK, N. Y.

## FREIGHT-CAR.

SPECIFICATION forming part of Letters Patent No. 694,052, dated February 25, 1902.

Application filed November 4, 1901. Serial No. 80,986. (No model.)

*To all whom it may concern:*

Be it known that I, FREDERICK P. BUTTS, a citizen of the United States of America, and a resident of New York city, county and State of New York, have invented certain new and useful Improvements in Freight-Cars, of which the following is a specification, reference being had to the accompanying drawings, forming a part thereof.

My invention relates to freight-cars; and it consists in providing one or more removable door-posts on one or both sides of the car and in certain construction and arrangement of doors, as will be hereinafter more fully set forth.

The object of my invention is to permit ready access to the interior of a freight-car for the purposes of loading and unloading the same.

My invention further consists in certain details of construction and combination of parts, as will be hereinafter more fully set forth.

I will now proceed to describe a freight-car embodying my invention and will then point out the novel features in claims.

In the drawings, Figure 1 is a side elevation of a freight-car embodying my invention. Fig. 2 is a side elevation of the same with certain of the doors shown wide open, certain of doors removed, and one of the door-posts removed. Fig. 3 is a view in horizontal transverse section of the same. Fig. 4 is a view in vertical transverse section of the same. Fig. 5, 6, and 7 are detail views, on an enlarged scale, showing certain locking means employed between the removable door-posts and the car-frame.

It will of course be understood that my improvements are applicable to all kinds of closed cars adapted for the purpose of carrying goods, and the particular form and construction of car herein is merely an exemplification of one form in which my improvements and invention may be embodied. The framing of the car is designated by the reference character 1, and by the use of the term "framing" I intend to include all the stationary and immovable portions of the car.

I provide the car with one or more removable door-posts 2. In this instance there are two such door-posts for each side of the car. The door-posts may be secured to the fram-

ing in any suitable manner, and preferably they will be secured at their lower ends by a bolt or bolts 4 and at their upper ends by a locking means consisting of a tongue or tongues 5, secured to and carried by the post and adapted to engage a perforated plate 6, secured to the car-framing, and a pin or pins 7, arranged to pass through the said tongue or tongues and to lock it or them and the plate together. Such locking means is shown in detail in Figs. 5, 6, and 7 of the drawings, and it will be noted that such locking means is inaccessible from the outside of the car when the car is closed. The pins 7 are preferably somewhat tapered in form, so that the vibration of the car will tend rather to tighten the locking means than to loosen same. The pins may conveniently be secured to the car-framing by flexible connections, such as chains 8, in order that they may not become lost or mislaid when out of engagement with the tongues 5.

Doors 9 and 10 are secured, as by hinges 11, to the framing of the car and are arranged to close against the door-posts 2. The said doors 9 and 10 preferably comprise two members hinged upon each other, so that the said doors become folding doors and may be folded upon themselves at such times as they are swung open. By this means I am enabled to employ a door of large size, while such door will require but a small radius in which to swing both in opening and closing.

Doors 12 and 13 are mounted upon the door-posts 2, and the said doors 12 and 13 may also, if desired, comprise two members each and fold upon themselves. As a whole the doors are pivoted to the door-posts and preferably by means of hinges 14, which will permit of the said doors being removed bodily from the door-posts by lifting. I have provided handles 15 and 16 on each of the said doors and have arranged the outside handles 15 very much lower than the inside handles 16, whereby the handles 16 may be readily handled by men within the car and the handles 15 readily handled by men standing upon the ground outside of the car.

The doors may all be locked by suitable bars 17 and sealed with the usual car-seal at 18 in a manner well known.

When it is desired to use the car in the or-



dinary manner, it is merely necessary to open the doors 12 and 13, and the doors when open will give as large an area for the admission or passage of goods as the ordinary construction of car in use at the present day.

For handling certain classes of goods the central doors 12 and 13 may be kept closed and the doors 9 and 10 may either or both be opened, thus permitting access to practically any portion of the car desired. All the doors open independently of each other and will not interfere with each other.

When desired, as when loading or unloading large and heavy goods, such as pieces of machinery and the like, the doors 12 and 13 may be opened and then removed. The doors 9 and 10 may then be swung open and the door-posts 2 removed. This will open practically the whole side of the car, and the loading or unloading of such class of goods will be much facilitated. Fig. 3 of the drawings shows one side of the car so opened, and Fig. 2 shows the car in like condition except that one of the posts 2 has not been removed.

As will be seen more clearly by reference to Figs. 3 and 4, I may provide a number of boards 19, known as "grain-boards." These boards may be slipped into grooves formed between strips secured to the door-posts and to the framing of the car and may be employed behind the doors when the cars are used to transport grain or similar material.

I do not desire, of course, to be limited only to the precise details of construction and combination of parts herein set forth, as same may obviously be varied within wide limits without departing from the spirit and scope of my invention.

What I claim is—

1. In a freight-car, the combination with the framing, of a removable door-post and a door arranged at either side thereof.

2. In a freight-car, the combination with the framing, of a door mounted thereon, a removable door-post, and a door hinged thereto.

3. In a freight-car, the combination with the framing, of a door mounted thereon, a removable door-post, and a door removably hinged thereto.

4. In a freight-car, the combination with the framing, of doors hinged thereto, and a removable door-post between the said doors.

5. In a freight-car, the combination with the framing, of a door mounted thereon, a removable door-post to which the said door is adapted to be secured when closed, and a door hinged to the said door-post.

6. In a freight-car, the combination with the framing, of a door mounted thereon, a removable door-post to which the said door is adapted to be secured when closed, and a door removably hinged to the said door-post.

7. In a freight-car, the combination with the framing, of two removable door-posts, and 5 separate doors arranged between said door-

posts and the framing, and between the said door-posts themselves.

8. In a freight-car, the combination with the framing, of two removable door-posts, a door mounted upon the framework and adapted to close against one of the said door-posts, another door mounted upon the framework and adapted to close against the other said door-post, and a door mounted upon one of the said door-posts and adapted to close between the said door-posts.

9. In a freight-car, the combination with the framing, of two removable door-posts, a door mounted upon the framework and adapted to close against one of the said door-posts, another door mounted upon the framework and adapted to close against the other said door-post, and two doors, one mounted upon each of said door-posts, and adapted to close between them.

10. In a freight-car, the combination with the framing, of two removable door-posts, a door mounted upon the framework and adapted to close against one of the said door-posts, another door mounted upon the framework and adapted to close against the other said door-post, and two doors, one removably hinged upon each of said door-posts, and adapted to close between them.

11. In a freight-car, the combination with the framing, of a removable door-post, and a door hinged upon the car, said door comprising two members, one hinged upon the other.

12. In a freight-car, the combination with the framing, of two doors hinged thereto, each door comprising two members, hinged upon each other, and a removable door-post arranged between the said doors.

13. In a freight-car, the combination with the framing, of two doors hinged thereto, each door comprising two members, hinged upon each other, a removable door-post arranged between the said doors, and two doors, one mounted upon each of said door-posts and adapted to close between them.

14. In a freight-car, the combination with the framing, of two doors hinged thereto, each door comprising two members, hinged upon each other, a removable door-post arranged between the said doors, and two doors, one removably hinged upon each of said door-posts and adapted to close between them.

15. In a freight-car, the combination with the framing, of two doors hinged together, each door comprising two members, hinged upon each other, a removable door-post arranged between the said doors, and two doors, one mounted upon each of said door-posts and adapted to close between them, each door comprising two members hinged upon each other.

16. In a freight-car, the combination with the framing, of two doors hinged thereto, each door comprising two members, hinged upon each other, a removable door-post arranged



between the said doors, and two doors, one removably hinged upon each of said door-posts and adapted to close between them, each door comprising two members hinged upon  
5 each other.

17. In a freight-car, the combination with the framing, of a removable door-post, a bolt for securing one end of said door-post to the car-framing, a locking device for securing  
10 the other end thereto, and a door arranged at either side of said door-post.

18. In a freight-car, the combination with the framing, of a removable door-post, a bolt for securing the lower end of said door-post  
15 to the car-framing, means, inaccessible from

the outside of the car, when closed, for securing the upper end of the door-post to the car-framing, and a door arranged at either side of said door-post.

19. In a freight-car, the combination with 20 the framing, of a removable door-post, a tongue carried thereby, a perforated plate secured to the car-framing, and adapted to receive the said tongue, and a locking-pin arranged to pass through the said tongue and 25 to lock the said tongue and plate together.

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Witnesses:

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