

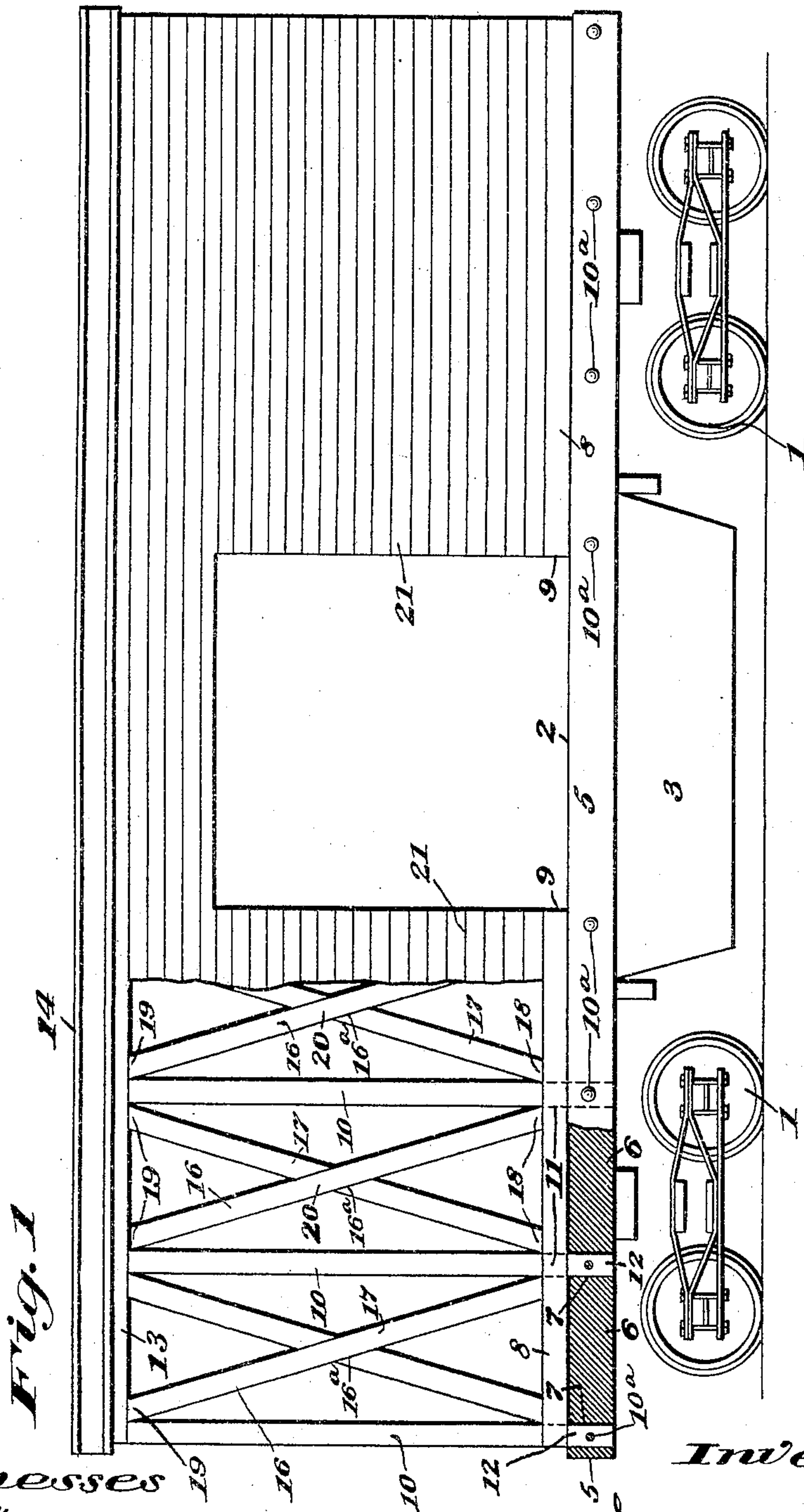
No. 778,831.

PATENTED DEC. 27, 1904.

H. J. BAYARD.  
RAILWAY CAR.

APPLICATION FILED MAR. 4, 1904.

2 SHEETS—SHEET 1.



Witnesses  
C. S. Kelley  
J. M. Wood.

By

Inventor  
H. J. Bayard  
J. R. Caplinger  
Attorney.

No. 778,831.

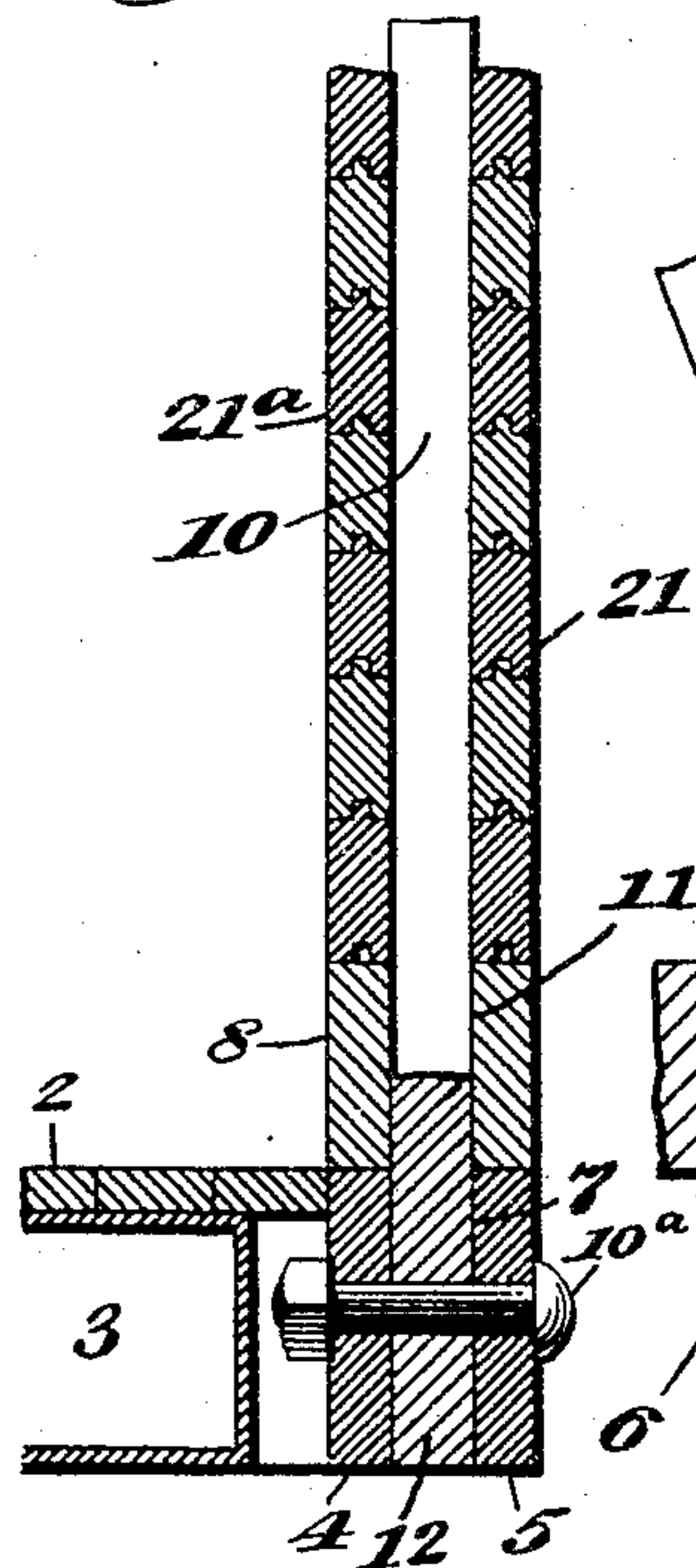
PATENTED DEC. 27, 1904.

H. J. BAYARD.  
RAILWAY CAR.

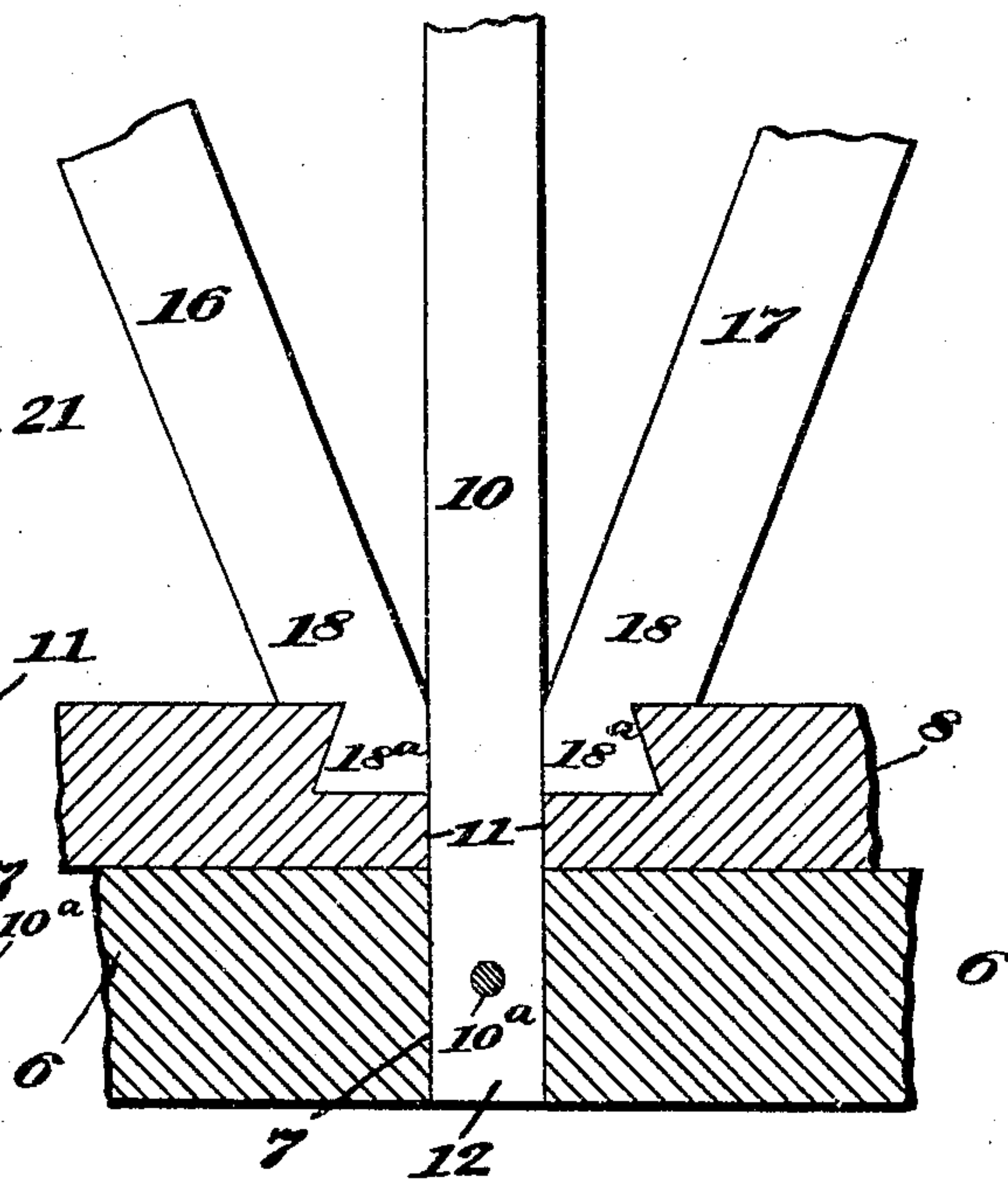
APPLICATION FILED MAR. 4, 1904.

2 SHEETS—SHEET 2.

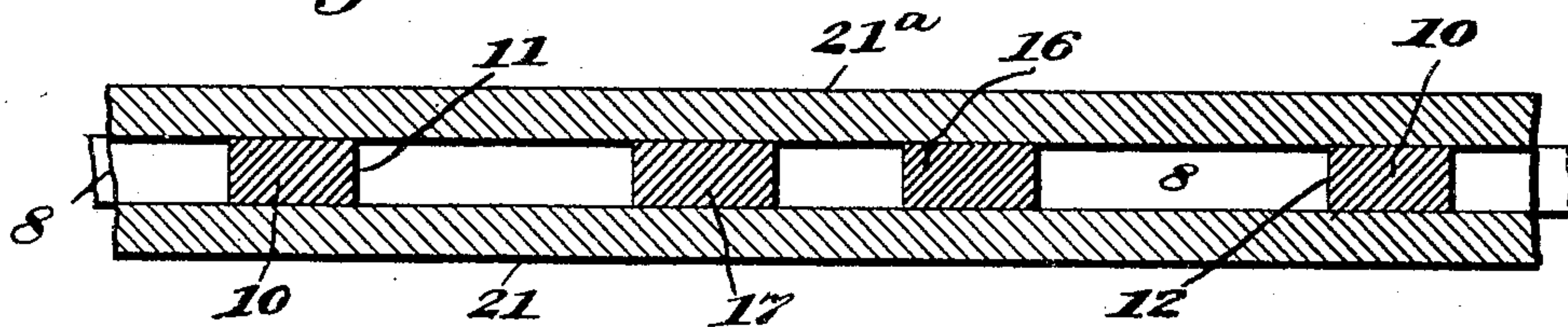
*Fig. 2*



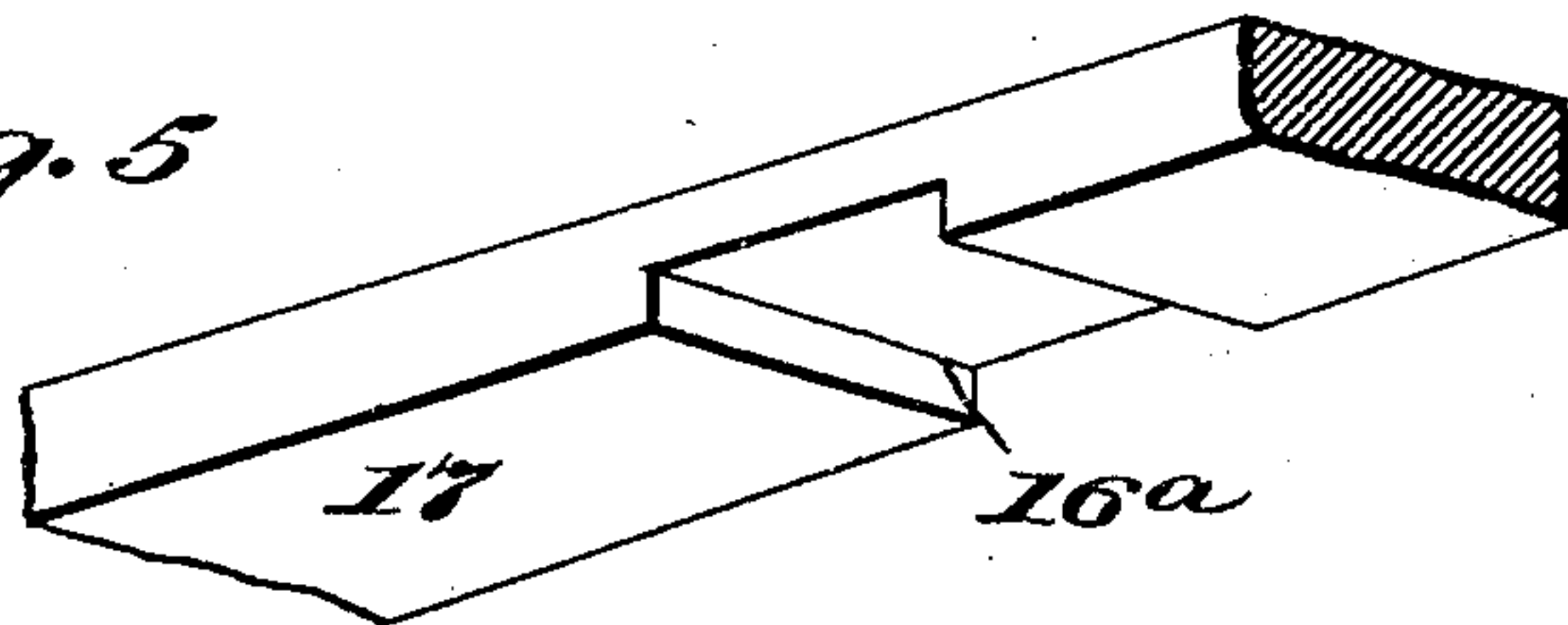
*Fig. 3*



*Fig. 4*



*Fig. 5*



*Witnesses*

*C. S. Kelley*  
*S. Myers*

*Inventor*

*Hayward J. Bayard*

*By*

*J. H. Sapling*  
*Attorney.*



# UNITED STATES PATENT OFFICE.

HYRAM J. BAYARD, OF CHICAGO, ILLINOIS.

## RAILWAY-CAR.

SPECIFICATION forming part of Letters Patent No. 778,831, dated December 27, 1904.

Application filed March 4, 1904. Serial No. 196,625.

*To all whom it may concern:*

Be it known that I, HYRAM J. BAYARD, a citizen of the United States of America, and a resident of Chicago, Cook county, Illinois, have  
5 invented certain new and useful Improvements in Railway-Cars, of which the following is a specification.

This invention relates to certain improvements in railway-cars, and more especially in  
10 that class of freight-cars which are provided with inclosed sides, as various kinds of box-cars, cattle-cars, and the like; and the object of the invention is to improve and simplify the construction of the bodies of the cars so  
15 as to afford increased strength to withstand the strains and wear to which they are exposed and at the same time to permit of holding the car-body removably to the car-platform, so as to be adapted for removal that it  
20 may be replaced by a body of other construction or omitted to adapt the car for use in connection with freight of various kinds.

The invention consists in certain novel features of the construction, combination, and arrangement of the several parts of the improved  
25 railway-car whereby certain important advantages are attained and the device is rendered simpler, cheaper, and otherwise better adapted and more convenient for use, all as will  
30 be hereinafter fully set forth.

The novel features of the invention will be carefully defined in the claims.

In the accompanying drawings, which serve to illustrate my invention, Figure 1 is a side  
35 view showing a car constructed according to my invention, certain portions of the sides of the same being broken out to better show the interior construction and arrangement. Fig. 2 is an enlarged sectional detail view showing  
40 certain means for holding the removable car-body to the platform and which will be hereinafter described more particularly. Fig. 3 is an enlarged sectional detail view taken in a plane at right angles to the plane of the section in Fig. 2 and showing in addition to the  
45 features illustrated in Fig. 2 certain other features of the means for bracing and strength-

ening the car-body. Fig. 4 is an enlarged section taken horizontally and longitudinally through one of the sides of the car-body. Fig. 50  
5 is a perspective view showing a fragment of one of the notched or halved braces for the side of the car-body.

As shown in the views, 1 indicates the trucks, on which is supported the car-platform 2, which  
55 is provided with tanks 3, extended lengthwise along its opposite sides in a well-known way. The tanks 3 have shallow end portions extended in the platform over the trucks, but have a deeper central portion depending in the space  
60 between the said trucks. In this way it will be seen that the car is adapted for transportation of freight held in said tanks, as well as for solid freight of various kinds supported on  
65 the platform 2.

The platform 2 is provided around its edges with strips 4 and 5, spaced apart, as seen in Fig. 2, and between these strips 4 and 5 are interposed short wooden blocks 6, the ends of  
70 which are separated from each other, as seen in Fig. 1, wherein the outer strip 5 is omitted at one end of the car in such a way as to produce between the blocks sockets 7, in which  
75 are adapted to be received projections 12, extended down at suitable intervals from the under side of the car-body, which is thereby removably held to the platform in such a way  
80 that it may be lifted off therefrom, the projections 12 being capable of being readily withdrawn from said sockets 7, so that the car may  
be used as a platform-car when its body is removed, or said body may be replaced by another body of different kind to adapt the car to a different kind of freight.

The platform 2 of the car is provided with  
85 a floor extended upon its upper surface, and the car-body has no such floor, but is open at its bottom and has around its lower edges sills 8, adapted to rest directly upon the top of the platform 2 above the sockets 7 therein, said  
90 sills 8 being of course omitted at the car-door, as seen at 9 in Fig. 1.

From the sills 8 there are extended upward at suitable intervals vertical or upright posts



10, the lower end portions of which are mortised into the sills 8, as shown at 11 on the drawings, and the lower extremities of which are extended below said sills and form the stakes or projections 12, above referred to, for holding the body in place upon the platform.

Upon the standards or posts 10 are supported plates 13, whereon is upheld the car-roof 14, and between each two of said standards or uprights 10 are arranged a pair of oppositely-inclined and crossed braces 16 and 17, which are alined in the same plane as the said uprights 10 and have their lower and upper ends securely held in the sills 8 and plates 13, respectively, as indicated at 18 and 19. The central crossed portions of the said braces 16 and 17 are held together, as shown at 20, by a joint produced by cutting out each brace at such intersection, as indicated at 16<sup>a</sup> in Fig. 5, to receive the remaining portion of the other brace, so that at said intersection the braces are halved together in a well-known way.

The lower ends of the braces 16 and 17 are mortised in the sills 8 at opposite sides of the respective uprights or posts 10, the sills having at each side of each post 10 an opening 18<sup>a</sup>, forming a continuation of the opening through which the post 10 is passed and each such opening 18<sup>a</sup> being provided with a dovetailed or undercut outer wall. In assembling the parts of the structure the lower end of each brace 17 and 16 will have a dovetailed surface formed on it to correspond with the undercut end wall of the opening 18<sup>a</sup>, in which it is to be fitted, and before the uprights 10 are passed through the sills the braces 16 and 17 adjacent to each such post or upright 10 will be seated in its corresponding opening, with its beveled surface engaged on the undercut wall of its opening 18<sup>a</sup>, and after the posts are passed through the sills between such braces 16 and 17 it will be understood that such posts will securely hold the braces against removal from the openings 18<sup>a</sup>, whereby a very strong and rigid construction is attained at but slight expense. A similar construction may, if desired, be employed at the plates 13 also.

The uprights 10 and braces 16 and 17 serve for the attachment of the outer and inner sheathing 21 and 21<sup>a</sup> where such are employed, and the resultant structure is extremely strong and durable and is particularly well adapted for use in connection with freight-cars, which must of necessity be cheaply as well as strongly constructed.

The sockets in which stakes or projections 12 are received are of dimensions such as to snugly receive said stakes or projections when the latter are inserted in their sockets in such a way as to hold the stakes or projections against pivotal movement and where neces-

sary means may be provided for holding the stakes or projections 12 within their sockets, and such means may be of any desired nature. Herein I have illustrated such a holding means comprising a series of bolts 10<sup>a</sup>, passed through the inner and outer strips 4 and 5 of the platform and through the stakes or projections. It will be evident that these bolts 10<sup>a</sup> will serve to hold the stakes securely in their sockets when the body is on the car; but when it is desired to remove said body from the platform the bolts may be readily removed.

From the above description it will be seen that the improved car constructed according to my invention is of an extremely simple and inexpensive nature and is especially well adapted for use, since it is of a strong and rigid construction and is capable of being readily converted to adapt it for use with freight of various kinds.

It will also be obvious from the above description that the device is capable of considerable modification without material departure from the principles and spirit of the invention, and for this reason I do not desire to be understood as limiting myself to the precise form and arrangement of the several parts of the device herein set forth in carrying out my invention in practice.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. A car having a platform provided with alined inner and outer strips along its edges and having sockets produced between said strips in combination with a car-body having stakes or projections extended down from it for engagement in said sockets and devices passed through said alined strips of the platform and through said stakes or projections of the car-body for holding the body on the platform, the sockets being of dimensions to snugly receive said stakes or projections and the said stakes or projections, when in the sockets, being held against pivotal movement by engagement with the walls of the sockets.

2. A car having a body provided with sills and plates, uprights extended vertically between the sills and plates and spaced apart and having lower end portions passed through the sills and extended below the same to form stakes or projections in combination with a platform having sockets in which said stakes or projections are snugly received, the stakes or projections, when in said sockets being held against pivotal movement by engagement with the walls of the sockets and bolts passed across the sockets and through said stakes or projections to hold the body in position on the platform.

3. A car having a body provided with sills and plates, uprights extended vertically be-

tween the sills and plates and spaced apart,  
the sills having openings through which the  
lower ends of the uprights are passed and said  
openings being extended beyond opposite  
5 sides of the uprights and having undercut  
outer end walls in combination with inclined  
braces extended in the spaces between the  
uprights with lower beveled ends engaged in

said openings against the undercut end walls  
thereof.

10

Signed at Chicago this 16th day of Decem-  
ber, 1903.

HYRAM J. BAYARD.

Witnesses:

J. D. CAPLINGER,

J. H. BRUCE.