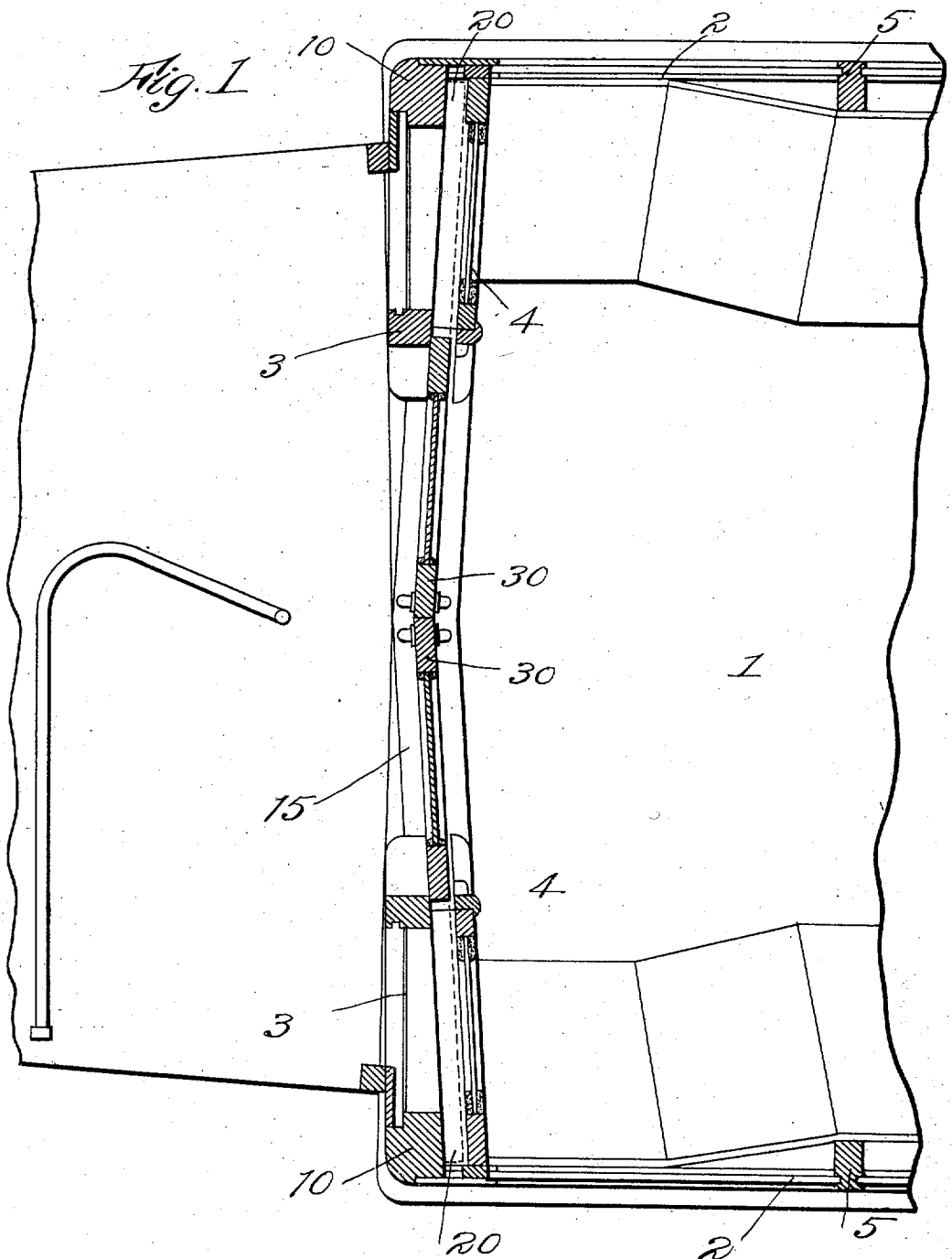


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H. H. ADAMS.  
CAR CONSTRUCTION.  
APPLICATION FILED JAN. 12, 1910.

Patented Apr. 12, 1910.

2 SHEETS—SHEET 1.



Witnesses:  
*H. H. Adams*  
*Ray J. Ernst*

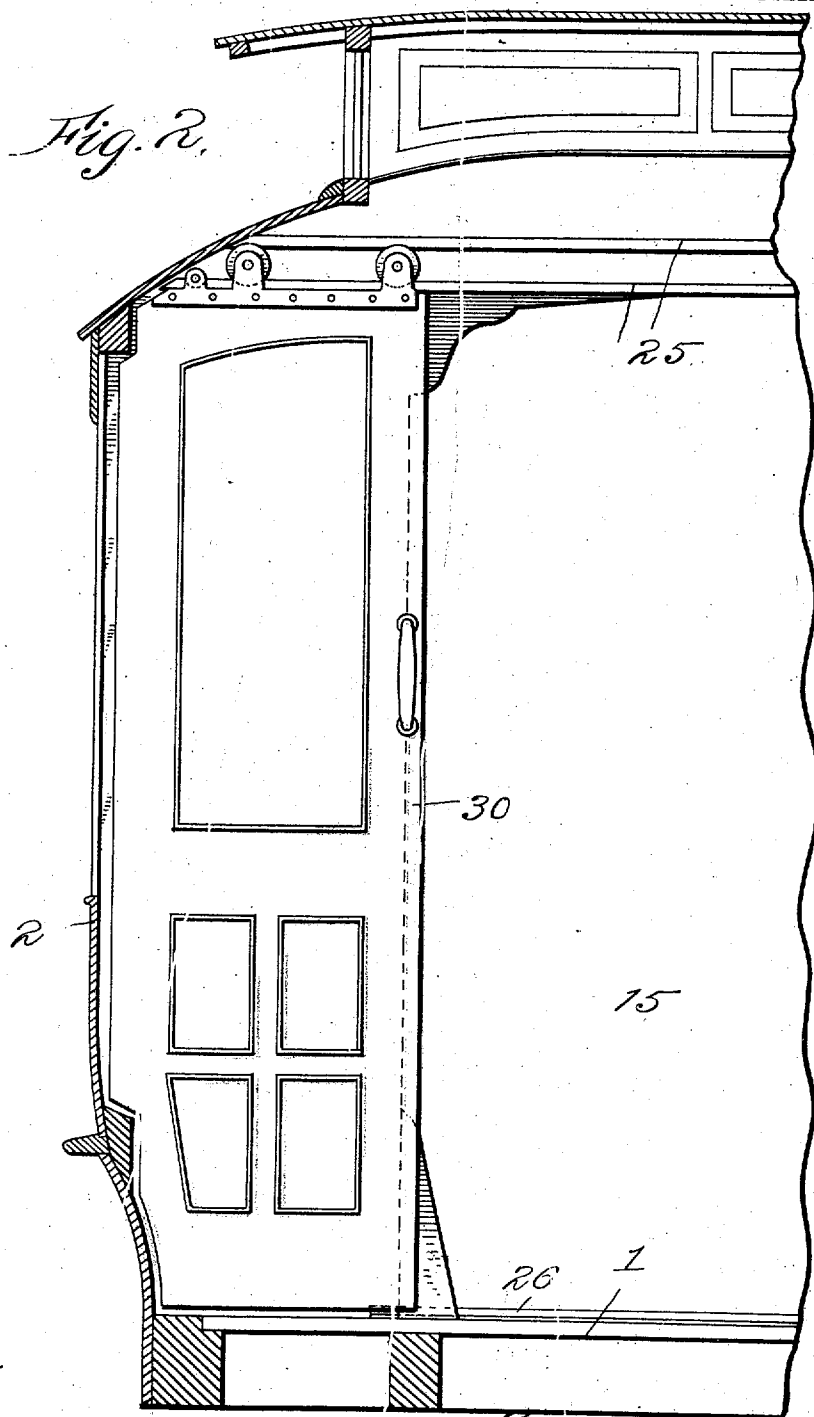
*Harry H. Adams* Inventor  
By *Lucas Attorneys* *Lucas*

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2 SHEETS—SHEET 2.



Witnesses:  
*H. H. Knight*  
*Ray J. Ernst.*

*Harry H. Adams* Inventor,  
By *his* Attorneys *Smith & Brown.*

# UNITED STATES PATENT OFFICE.

HARRY H. ADAMS, OF NEW YORK, N. Y.

## CAR CONSTRUCTION.

954,908.

Specification of Letters Patent.

Patented Apr. 12, 1910.

Application filed January 12, 1910. Serial No. 537,757.

*To all whom it may concern:*

Be it known that I, HARRY H. ADAMS, a citizen of the United States, and a resident of the borough of Manhattan, city, county, and State of New York, have invented certain new and useful Improvements in Car Construction, of which the following is a specification.

In a patent issued to me January 4th, 1910, No. 945,666, I have covered an improved car construction for obtaining the maximum width of doorways through the end walls of the car by arranging the door receiving pockets or recesses in the end walls of greater width by forming the corner posts of pairs of separated studs between which the door receiving pockets or recesses extend, thereby avoiding the limitations in the width of the said pockets or recesses by the presence of corner posts as ordinarily constructed. With this arrangement, I am able to construct a car with an available doorway of approximately one half the free exterior width of the car, for the reason that the centrally separating sliding doors closing the doorway are permitted to move into their pockets or recesses to the inner faces of the outside skin or sheathing of the car, and thereby open up practically the entire width of the doorway.

The object of my present invention is to accomplish the same advantages of the construction set forth in my above named patent, by means of a different construction.

In constructing a car in accordance with my present invention, with the stated object in view, I arrange the door receiving pockets or recesses upon opposite sides of the doorways through the end walls of the car so as to permit the centrally separating sliding doors to move in planes slightly inclined to the transverse plane of the car body. These door receiving pockets or recesses extend from the inner faces of the outside skin or sheathing of the car to the central longitudinal plane of the car body at angles which place them just in rear of the corner posts upon which the side walls and end walls of the car are built, and cause the sliding doors to meet in the central longitudinal plane of the car approximately in the transverse planes defining the outer faces of the end walls of the car. In this manner the planes in which the individual car doors

slide will incline from the side walls of the car toward the ends of the car so that each door receiving pocket will escape the limitation of a corner post and extend to the inner face of the outside skin or sheathing of the car to permit each door to open outwardly to a sufficient extent to provide a doorway when the doors are opened, of practically one half the exterior width of the car.

In carrying my invention into practice, the end walls may be inclined from the side walls slightly toward the ends of the car platform, or they may be placed in planes exactly perpendicular to the side walls, but in either case there is no material encroachment upon the interior capacity of the car, since the space required for the door receiving pockets and the inner panels of the end wall behind the corner posts is almost entirely compensated for by the increased space in the car aisle by reason of the outward inclination of the doors toward the central longitudinal plane of the car.

In order that my invention may be fully understood, I will first describe the same with reference to the accompanying drawings, and afterward point out the novelty more particularly in the annexed claims.

In said drawings: Figure 1 is a diagrammatic sectional plan view of one end of a street railway car embodying my invention. Fig. 2 is a detail vertical transverse sectional view of the same.

1 represents the car floor; 2 the paneled side walls thereof; 3 the outer panels of the end wall, and 4 the inner panels of the end wall. The side walls 2 are built upon the upright intermediate posts 5 and main corner posts 10 in the usual manner, the main frames of the car body also supporting the transverse top braces upon which the roof of the car rests.

As shown in Fig. 1 of the drawings, the outside end panels 3 which are also built upon the corner posts 10, are inclined slightly from the planes of the side walls toward the ends of the car, although said end wall panels may be mounted at right angles to the side wall. Through each end wall of the car is formed a central doorway which it is desirable to construct with as wide a free opening as possible to facilitate the movements of passengers into and out of the car. It will be understood that a doorway 15 and

the sliding doors hereinafter referred to are provided at both ends of the car, although only one end of the car is shown in my accompanying drawings. At opposite sides of each of the central doorways 15 are formed door receiving pockets or recesses 20, which pockets or recesses are spaced between the outer end wall panels 3 and the inner end wall panels 4. These door receiving pockets 20 extend from the inner faces of the outside skin or sheathing of the side walls of the car at an angle inclining toward the ends from the transverse plane of the car, and mounted above and below the doorways 15 are suitable track bars or guide rails 25 and 26 which form continuations of the door receiving pockets and extend in the same angular planes to the central longitudinal plane of the car body. By this arrangement, it will be observed that the door receiving pockets 20 at their outer ends lie just within or in rear of the inner faces of the corner posts 10, so that the corner posts do not limit the extent of the door receiving pockets or recesses.

Each of the doorways 15 is closed by two rigid panel sliding doors 30 hung in the usual manner upon the track bars 25 and extending above the door opening 15 and to the side thereof into the door receiving pockets or recesses 20. These sliding doors 30 are also guided at the bottom upon the guide rails 26. The sliding doors 30 meet in the central vertical longitudinal plane of the car when in closed position at a slight outward angle or inclination toward the end of the car. When the doors are moved into opened position, they pass almost entirely into the door receiving pockets or recesses 20 as indicated by dotted lines in Fig. 1, and since said pockets or recesses 20 pass in rear of the corner posts 10 and are limited only by the side sheathing of the car, the open position of the doors permits a free passageway through the doorway 15 which is approximately one half the exterior width of the car. In this manner the door receiving pockets or recesses are made of the greatest possible width so as to receive the greatest possible width of doors and permit the use of a doorway equal to approximately one half the exterior width of the car.

What I claim is:

1. In a car construction, the combination of a car body having a centrally arranged doorway in its end wall, of approximately one half of the exterior width of the car, with door receiving pockets upon opposite sides of said doorway extending from the side walls to the doorway and inclining from the vertical transverse plane of the car toward the end of the car, and rigid sliding doors mounted in said door receiving pockets meeting in the central longitudinal plane of the car and adapted, when open, to afford

a free passageway of substantially the entire width of the doorway.

2. In a car construction, the combination of a car body comprising side walls, end walls, and vertical corner posts supporting said walls, the end walls being formed with centrally arranged doorways of approximately one half of the exterior width of the car, door receiving pockets upon opposite sides of each of said doorways extending from the inner faces of the side walls toward the central vertical longitudinal plane of the car and inclining toward the ends of the car from the transverse vertical planes of the car at the terminations of said pockets by said side walls, and rigid sliding doors mounted in said pockets and adapted to meet in the central vertical longitudinal plane of the car and, when opened into said pockets, to afford a free passageway of substantially the entire width of the doorway.

3. In a car construction, the combination of a car body, comprising the side walls, the end walls, and the vertical corner posts upon which said walls are built, said end walls being formed with centrally arranged doorways of approximately one half of the exterior width of the car, door receiving pockets upon opposite sides of the doorways extending from the inner faces of the side walls alongside the inner transverse faces of said corner posts toward the central vertical longitudinal plane of the car, and inclining from the side walls toward the ends of the car, and a pair of centrally separating rigid sliding doors closing each of said doorways and adapted to open into said door receiving pockets to afford a free passageway of substantially the entire width of the doorway.

4. In a car construction, the combination of a car body, having a centrally arranged doorway in each of its end walls of approximately one half of the exterior width of the car, vertical corner posts arranged within said end walls, door receiving pockets upon opposite sides of each of said doorways extending from the inner faces of the side walls of the car alongside the inner transverse faces of said corner posts to the doorway, and inclining from said inner transverse faces of said corner posts to points approximately within the transverse planes of the end walls of the car, and centrally separating rigid sliding doors closing said doorway and adapted to open into said pockets and afford a free passageway of substantially the entire width of said doorway.

5. In a car construction, the combination of a car body having side walls and end walls built upon corner posts, said end walls being inclined from the side walls outwardly toward the ends of the car, and formed with centrally arranged doorways of approxi-

mately one half of the exterior width of the car, door receiving pockets upon opposite sides of the doorways extending from the side walls alongside the inner transverse faces of said corner posts at inclinations toward the ends of the car, and centrally separating rigid sliding doors mounted in said pockets and adapted, when open, to afford a free passageway of substantially the entire width of said doorways.

HARRY H. ADAMS.

Witnesses:

WM. E. KNIGHT,

M. G. CRAWFORD.