

No. 664,552.

Patented Dec. 25, 1900..

J. H. HORNE.

CONSTRUCTION OF RAILWAY CARS.

(Application filed Sept. 13, 1900.)

(No Model.)

4 Sheets—Sheet 1.

Fig 1.

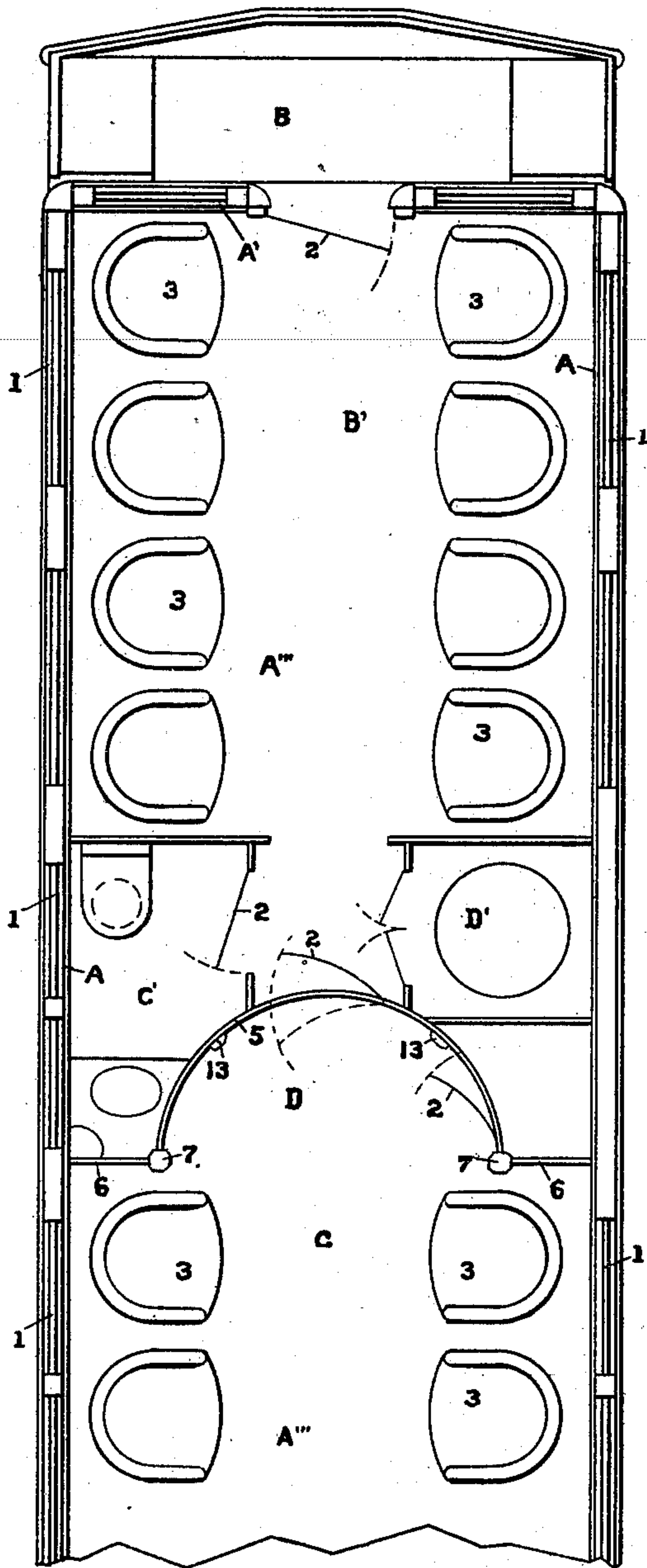
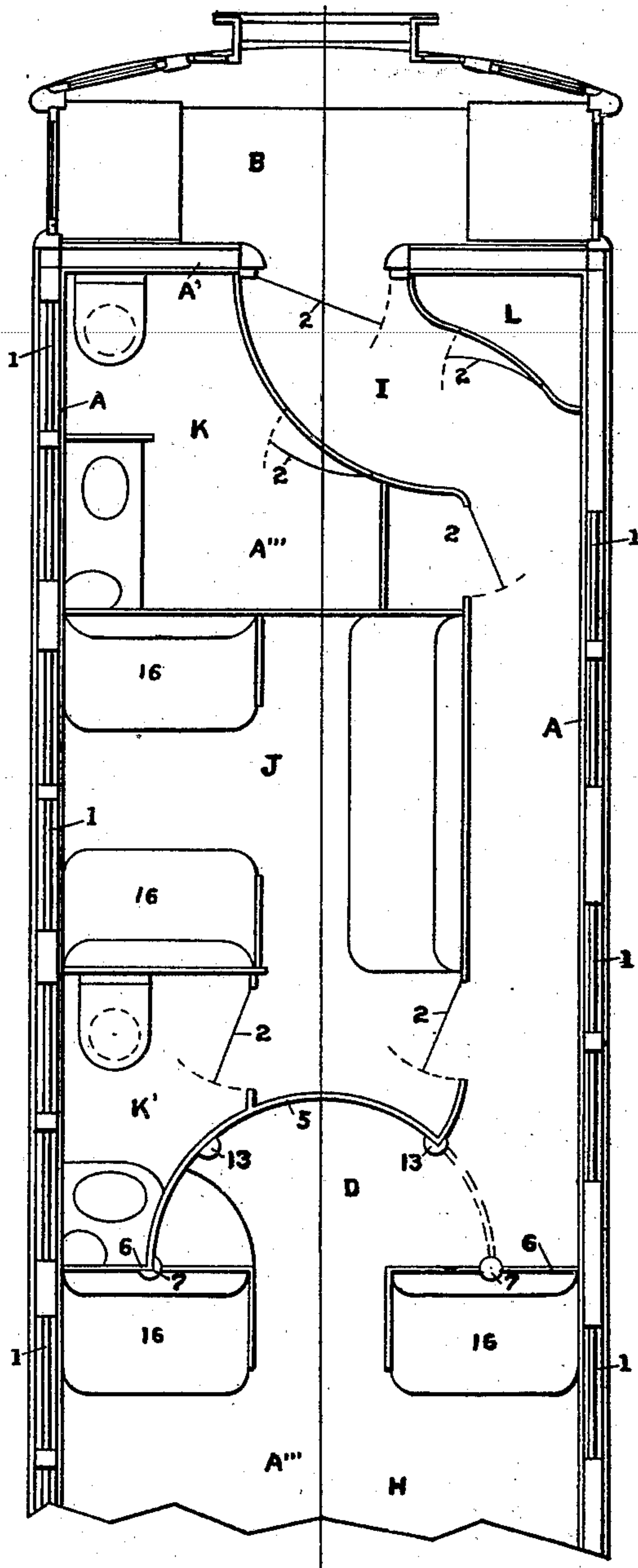


Fig 2.



Attest

E. B. Schuman
Fred E. Keeley

Inventor
James H. Horne
By [Signature]
His Atty.

No. 664,552.

Patented Dec. 25, 1900.

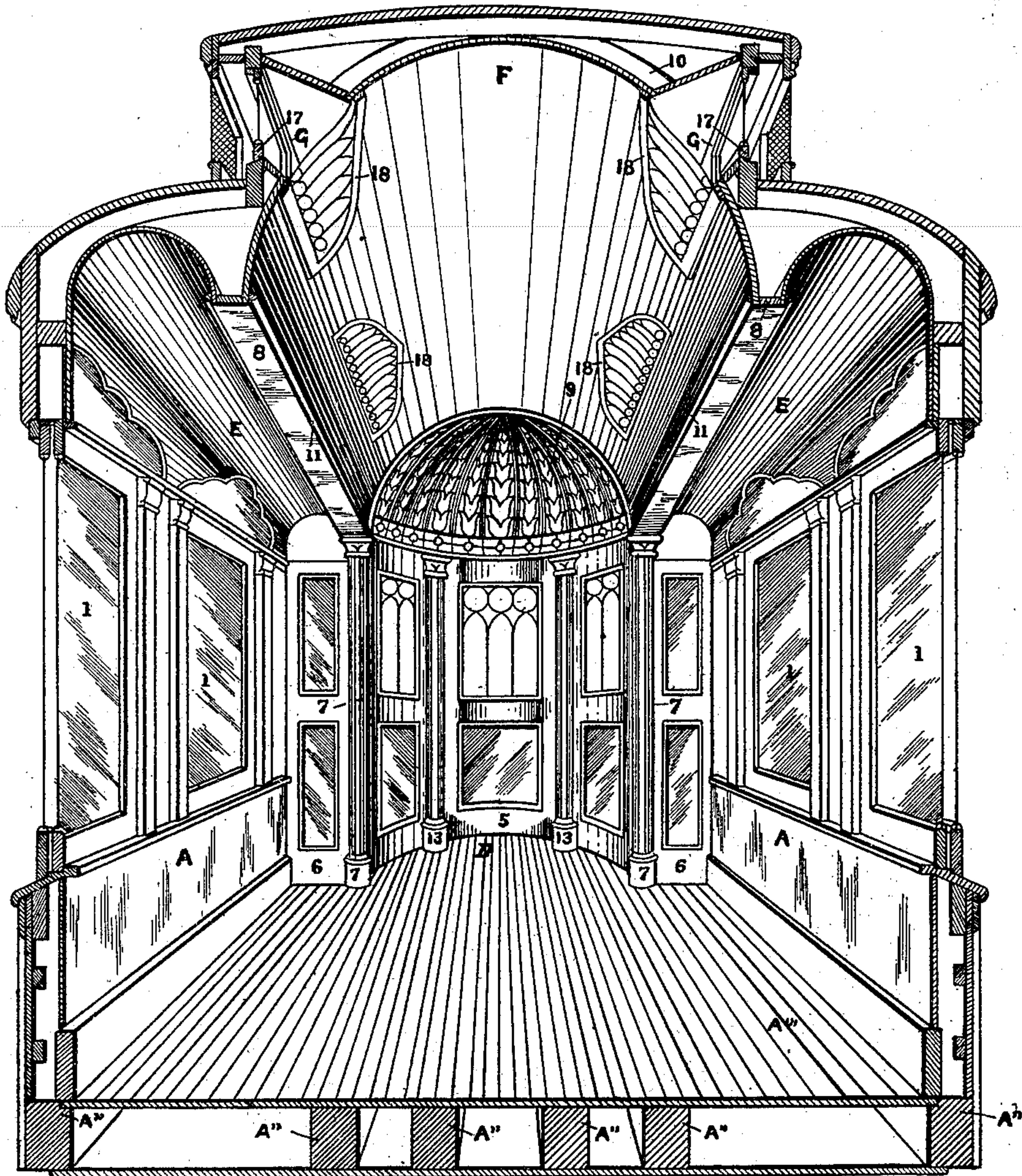
J. H. HORNE.
CONSTRUCTION OF RAILWAY CARS.

(Application filed Sept. 13, 1900.)

(No Model.)

4 Sheets—Sheet 2.

Fig. 3



Attest

E. B. Schuman
Fred E. Keeley

Inventor

James H. Horne
By *John H. Horne*
His Atty.

No. 664,552.

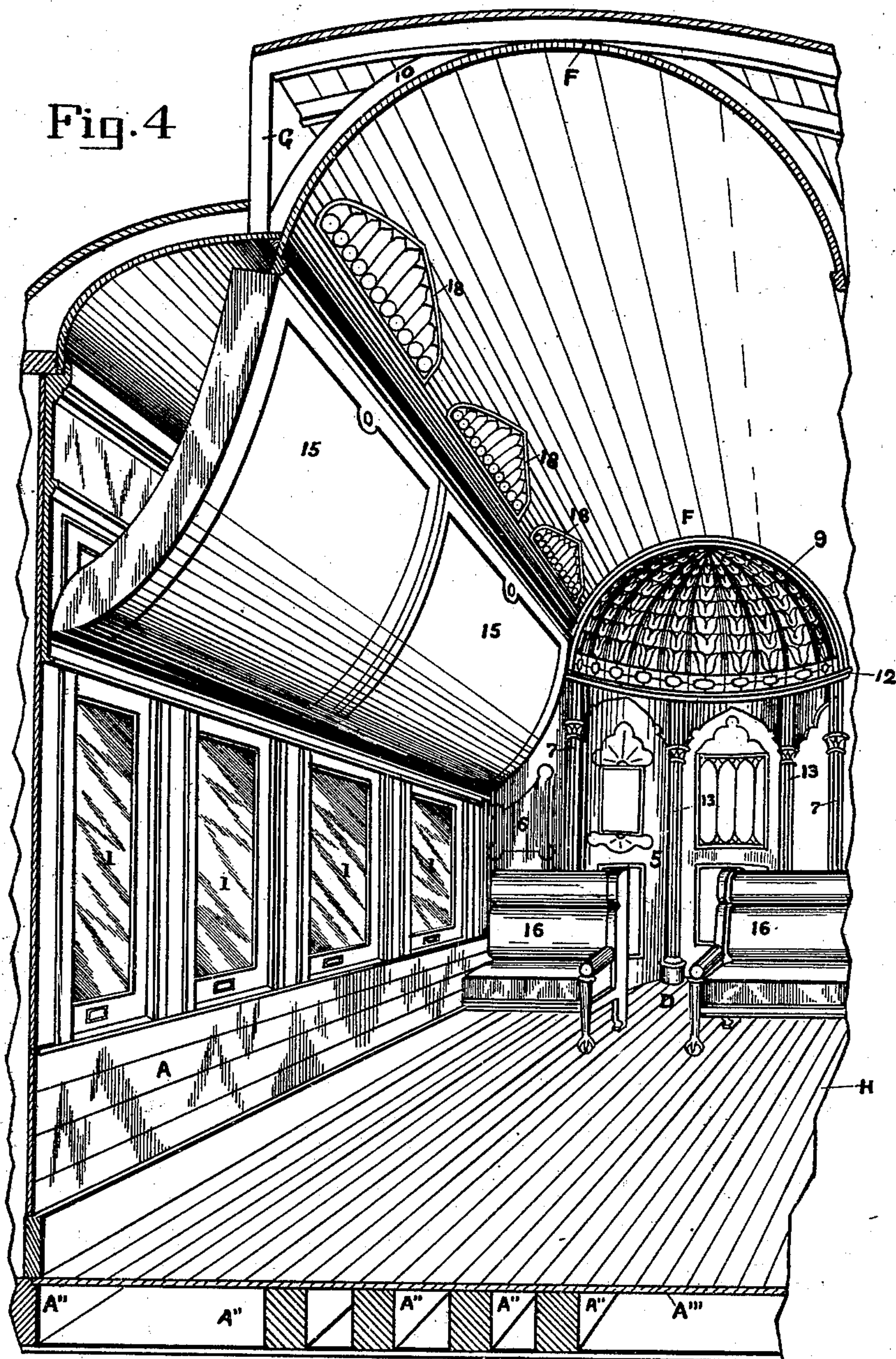
Patented Dec. 25, 1900.

J. H. HORNE.
CONSTRUCTION OF RAILWAY CARS.

(Application filed Sept. 13, 1900.)

(No Model.)

4 Sheets—Sheet 3.



Attest.
E. B. Lehman
Fred. E. Keckley.

Inventor.
James H. Horne
By J. Kirby, Jr.
Attorney.

No. 664,552.

Patented Dec. 25, 1900.

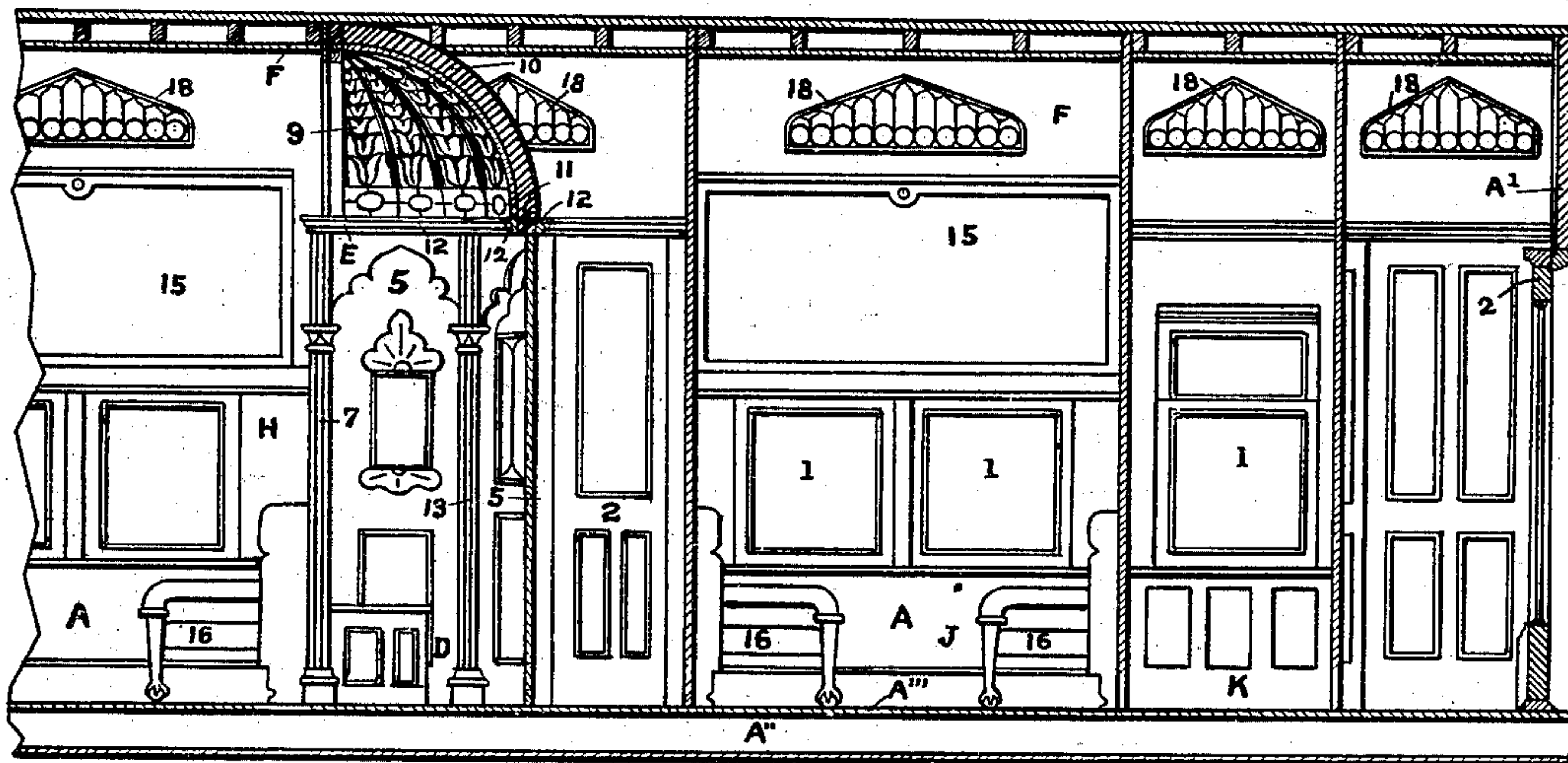
J. H. HORNE.
CONSTRUCTION OF RAILWAY CARS.

(Application filed Sept. 13, 1900.)

(No Model.)

4 Sheets—Sheet 4.

Fig. 5.



Attest.
E. B. Lehman
Fred E. Keeley

Inventor
James H. Horne
By J. H. Horne
His Atty.

UNITED STATES PATENT OFFICE.

JAMES H. HORNE, OF DAYTON, OHIO, ASSIGNOR TO THE BARNEY & SMITH
CAR COMPANY, OF SAME PLACE.

CONSTRUCTION OF RAILWAY-CARS.

SPECIFICATION forming part of Letters Patent No. 664,552, dated December 25, 1900.

Application filed September 13, 1900. Serial No. 29,878. (No model.)

To all whom it may concern:

Be it known that I, JAMES H. HORNE, a citizen of the United States, residing at No. 213 East Monument avenue, in the city of Dayton, county of Montgomery, and State of Ohio, have invented certain new and useful Improvements in the Construction of Railway-Cars; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to construction of railway passenger-cars, more particularly to sleeping, parlor, and private cars, and has for its objects an improved form of upper deck or clear-story whereby the car structure is strengthened and the deck-ceiling made more pleasing in appearance; also, certain improvements in the interior arrangement of the car whereby the main room is provided with space for hand-baggage and where passengers on entering the room may find temporary waiting accommodation until berths or seats can be assigned to them, and to provide such space without material sacrifice of room in other parts of the car. The manner in which these objects are carried out, together with certain other improvements, will be hereinafter fully described and understood in the following specification and by reference to the accompanying drawings, which form part hereof, and in which—

Figure 1 is a plan view of the interior arrangement of a parlor-car embodying one feature of my invention, and which I will term, for the purpose of identification in describing it, an "interior vestibule," arranged at each end of the main room of the car; Fig. 2, a plan view showing the main room arranged as a sleeping-car; Fig. 3, an interior view in cross-section of the same room looking from the center toward one end thereof, the seats and berths being removed; Fig. 4, a broken perspective view of same, showing one end and a portion of one side of the interior of the main room with some of the seats removed; Fig. 5, a longitudinal broken section through the center of the car.

In the said drawings similar letters and nu-

merals of reference represent corresponding parts throughout all the figures.

A represents the side walls, and A' the end walls, of the car, the windows thereof being indicated by the numerals 1, 2 representing the doors in the several figures of the drawings, and B represents the platform and vestibule at the ends of the car, all of which may be of usual construction and which of themselves form no part of my invention.

A'' represents the sills of the car, and A''' the floor thereof, the trucks for which may be of any desirable construction.

In Fig. 1, C represents a portion at one end of the main or drawing room of a parlor-car provided with chairs 3. At each end of this room there is arranged what may be termed a "vestibule" D, which constitutes a part of said main room and is formed by partitions 5 6, the former being preferably semicircular in cross-section and having openings or doors, as shown. The partitions 6 extend laterally from the side walls, preferably at right angles thereto, toward the center of the car and vertically from the floor to the lower deck E thereof and are joined to the semicircular partition 5 at corner-posts 7, located under the deck-rail 8 and extending therefrom to the floor. These partitions 5 extend vertically from the floor to the said deck-rail and then partake of the form of a quarter-sphere 9, converging toward the longitudinal center of the car into the ceiling F of the upper deck G. This ceiling being semicircular in its vertical cross-section is secured to rafters 10 and proportioned to correspond with the spherical portion of the partition 5, to which it is joined at the top of the vertical portion thereof, thus forming a continuation of said ceiling to the deck-rail 8 and thence to the floor of the car. Any suitable number of ribs or rafters 10 may be employed, and they are joined to the semicircular partition 5, preferably by means of an intermediate cap-rail 11, the joint being preferably covered by a molding 12. In practice I prefer to construct the vertical portion of the semicircular partition solid and the spherical portion of a number of ribs or rafters, as above described, properly joined at their meeting-points to

make a substantial structure, and fill in the spaces formed thereby with art glasswork, as such construction presents a more pleasing effect in the car, and I have shown such construction in the drawings. It is obvious, however, that these said spaces may be solid and of any suitable material, or the spherical portion of the partition 5 may be formed without the ribs 10 and in any suitable manner to carry out the object of this feature of my invention in contributing rigidity and strength to the car structure. When the ribs are employed, however, I mount a cap-rail 11 at the top of the vertical portion of the partition 5, as hereinbefore described, and to which I secure the lower ends of said ribs or rafters, immediately under which I place columns or posts 13, extending to the floor and which serve to still further strengthen the structure.

B' represents an observation-room at one end of the car, C' a toilet-room, and D' a heater-room. Space occupied by these rooms may, however, be divided and arranged in a manner desired.

My improvement being applicable to several types of cars, I have shown the same in Figs. 2, 4, and 5 applied to a sleeping-car, in which H represents the main sleeping-compartment; I, a passage-way leading thereto from the platform B; J, a smoking or state

room; K and K', toilet-rooms, and L a locker; but as these rooms may be varied and form no part of my invention I will not further describe them. 15 represents upper berths, and 16 seats adapted to be made into lower berths for use at night. There are arranged in the upper deck a series of hinged deck-sash 17, through which light is admitted to the upper part of the car and whereby the same may be ventilated, the openings for which sash on the inside are covered by open-work grilles 18.

Having thus fully described my invention, I claim—

In a railway passenger-car having a plurality of rooms, the combination of an upper deck or clear-story, a ceiling below the same substantially semicircular in its cross-section and having spherically-formed ends and a vertical partition corresponding in shape to said spherically-formed ends of said ceiling and forming a continuation of same to the floor of the car, substantially as shown and described.

In witness whereof I hereunto subscribe my name this 8th day of September, 1900.

JAMES H. HORNE.

In presence of—

CHAS. T. CHILDS,
LOUIS R. DU BOIS.