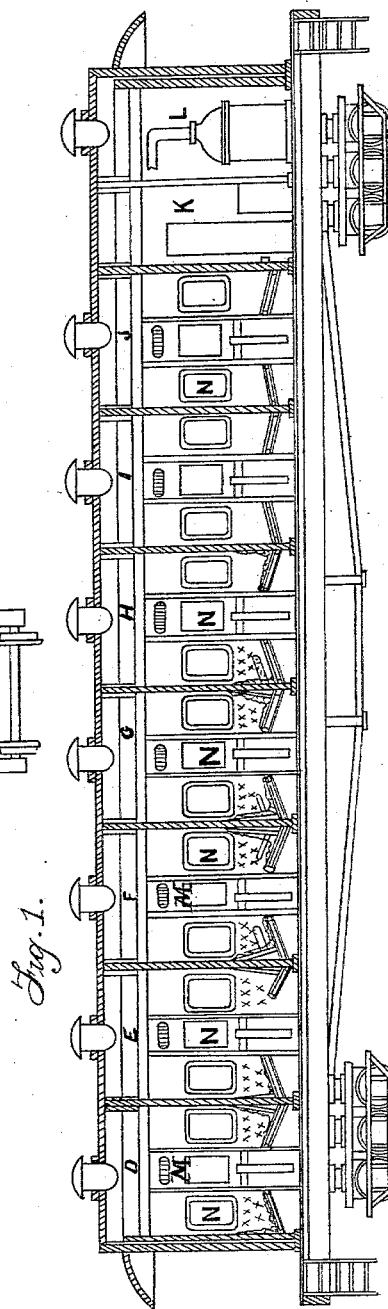
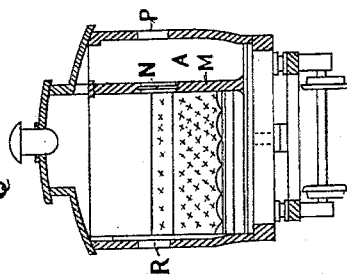


Patented Aug. 26, 1884.



*Inventor:*

William Henry Holmes  
by John J. Hilditch & Son  
his Atty.

# UNITED STATES PATENT OFFICE.

WILLIAM HENRY HOLMES, OF CHICAGO, ILLINOIS.

## RAILWAY-CAR.

SPECIFICATION forming part of Letters Patent No. 304,003, dated August 26, 1884.

Application filed May 2, 1884. (No model.) Patented in England August 3, 1883, No. 3,807, and in France February 1, 1884, No. 160,043.

*To all whom it may concern:*

Be it known that I, WILLIAM HENRY HOLMES, a native of Canada, a subject of the Queen of Great Britain, and residing at Chicago, in the State of Illinois, have invented new and useful Improvements in Railway Passenger Carriages, Cars, or Saloons, (for which Thomas Clapham has obtained Letters Patent in Great Britain, No. 3,807, dated the 3d day of August, 1883, and for which a patent has been applied for as follows: in France, on the 1st day of February, 1884,) of which the following is a specification.

This invention relates to constructing railway passenger carriages, cars, or saloons with interior side communication from end to end; also with all modern conveniences—such as washing accommodation, water, and heating apparatus—besides adequate means of extinguishing fires, and for the rescuing of human life in such an emergency. The interior and side communication or passage made from end to end of the carriage is accessible to every passenger therein, besides allowing passengers the use of conveniences without attracting the attention or disturbing other passengers, which is a particular advantage where ladies are traveling with children; also giving an increased security to the passengers from robbery and violence, from the perfect accessibility of the railway-guards and passengers to each other. For this purpose I construct, by preference, the railway carriages, cars, or saloons, either fifty-eight feet in length, or fifty-one feet five inches, and in width nine and one-half feet, or eight feet seven inches; height of ceiling, eight feet. For carriages fifty-eight feet in length and nine and one-half wide, I make the said carriages with seven compartments, each six feet seven inches wide and seven feet deep, and each compartment with eight sittings—that is to say, with four on each side. The interior communication or passage is, by preference, two and one-half feet in width. The compartments on the side of the passage are fitted with doors and windows, and the windows are, by preference, of plate-glass. Outside of the carriage, car, or saloon, and to the passage, are fitted doors and windows. The doors are therefore one on the entrance side of each compartment, and

one on the exit side of the passage. These passage-doors are, by preference, made sliding. Four windows are also fitted to each compartment, and the outside window-lights are, by preference, of plate-glass. Doors and windows are also fitted to the outside of the carriage on the passage side, so that passengers can enter and leave the passage. At one end of the carriage, car, or saloon, and next to the platform, is fitted a smoking compartment; and at the other end of the carriage, and next to the platform, is fitted a room in which is fitted a heater to warm the carriage. In this room is also fitted a coal-bunker, and in the passage fire-extinguishing apparatus. Next to the heater, and on the passage side, is fitted a wash-room having wash-basins and accessories, and at the end of the wash-room is fitted a water-closet and other conveniences. The compartments can be fitted first, second, and third class. Cord and electric communications are fitted throughout the carriage, car, or saloon, and the roof is double-decked.

It is obvious that the carriages, cars, or saloons fifty-one feet five inches long and eight feet seven inches wide are of similar construction to that hereinbefore described, but with six sittings to each compartment.

In order to enable the improvements to be fully understood I will proceed to describe the same by reference to the accompanying drawings, in which—

Figure 1 represents a longitudinal section of a railway passenger saloon, carriage, or car constructed according to these improvements. Fig. 2 represents a transverse section, and Fig. 3 a horizontal section, of the same.

Similar letters of reference are used in all the figures to represent similar parts.

The railway passenger-carriage shown in the drawings is fifty-eight feet in length and nine and one half feet in width, with a height of eight feet.

A is the exterior side communication or passage, two and one-half feet wide, extending from end to end of the carriage, and accessible by means of doors, as hereinafter described, to every passenger in the carriage, and allowing them the use of the water-closet and urinal B C without attracting the attention or disturbing the other passengers. The

passage A also affords additional security against robbery and violence from the accessibility of the railway-guards and passengers to each other while the train is stationary or in motion. The carriage is made with seven compartments—viz., a smoking-compartment, D, a second-class compartment, E, first-class compartments F and G, third-class compartments I and J, and a compartment, K, containing a wash-room, a water-closet, and a urinal.

L is the heating-room for warming the carriage, and contains the water-heater and the coal-box Y. This room is made fire-proof by being covered with zinc, and the hot-water pipes from the heater are carried under the seats, and covers, about two inches in height from the floor, form foot-rests in each compartment. Each of the seven compartments is, by preference, six feet seven inches wide and seven feet deep, and made with eight seats—four on each side. The said compartments communicate with the passage A, by preference, by means of the sliding doors M. Windows N are provided, by preference made of plate-glass.

On the outside of the carriage are fitted the doors P, having windows and also the windows Q, the doors being so fitted that they are not opposite but between the doors M of the compartments, and allow easy access to the passage A for the entrance and exit of passengers from and to the station-platform to and from the compartments. On the side of the carriage opposite the doors P are fitted similar doors, Q', which also open onto the station-platform, so that either side of the carriage is equally adapted for loading or unloading the train. The outside windows, R, on the opposite side of the carriage and opposite the windows N, are, by preference, of plate-glass, and allow of the occupants seeing out of both sides of the carriage from either end of the compartment. Doors S are provided at each end of the passage, and are also, by preference, made with frosted windows, and lead to the platforms T, thus forming at all times a complete communication from one end of the train to the other, either for the train-officials or for the passengers.

The smoking-compartment may have windows U at the end.

The lavatory K is fitted with a wash-stand having two washing-basins, V, and with a water-cooler, W, for drinking-water. A glass door leads from the passage to the room K, on which door are written the words "wash-room." The water-closet door is made of frosted glass, on which are the letters "W. C."

The door X separates the room K from the 60 water-closet.

The passage A is preferably provided with racks in which are fitted a "Babcock" fire-extinguisher, buckets, axes, saws, sledge-hammers and other necessities, accessible to all the passengers in the train. Cord communication is fitted throughout the carriages, cars, or saloons. Each compartment and passage is, by preference, lighted by electricity.

The roof of the carriage is what is called a "double-decked" roof, the top of which is lighted by ventilating side windows of colored glass.

It will be obvious that the carriages, cars, or saloons may be made of smaller dimensions than those hereinbefore described, and shown in the drawings, the construction being similar, except that a less number of seats would be provided in each compartment; also that the arrangement of the first, second, and third class compartments may be altered to suit requirements; or separate carriages, cars, or saloons can be fitted with all the compartments therein of one class.

I am aware that a sleeping-car has been made having no side doors, but having a corridor or passage extending lengthwise of the car at one of its sides, and communicating at its ends with inclosed platforms; but this differs essentially from my construction.

I am also aware that a side corridor or passage having doors at its outer side or partition has been used in cars; but such corridor did not connect at both ends with open-end platforms, but was connected from carriage to carriage by means of telescopic tubes and flexible diaphragms. This also differs materially from the car which I have shown and described, and consequently I make no claim to such construction; but

What I do claim as my invention is as follows:

A saloon-car for day passengers, having open-end platforms communicating directly with an interior continuous side passage extending from end to end of the car and connecting such platforms, having a series of doors in the outer side of such passage, a series of private compartments having doors opening into such passage, and having also another series of doors on the opposite side of the car, the car being also provided with compartments and apparatus for heating, washing, and the customary conveniences.

WILLIAM HENRY HOLMES.

Witnesses:

JOHN H. HOLDEN,  
JOHN C. PIRIE.