

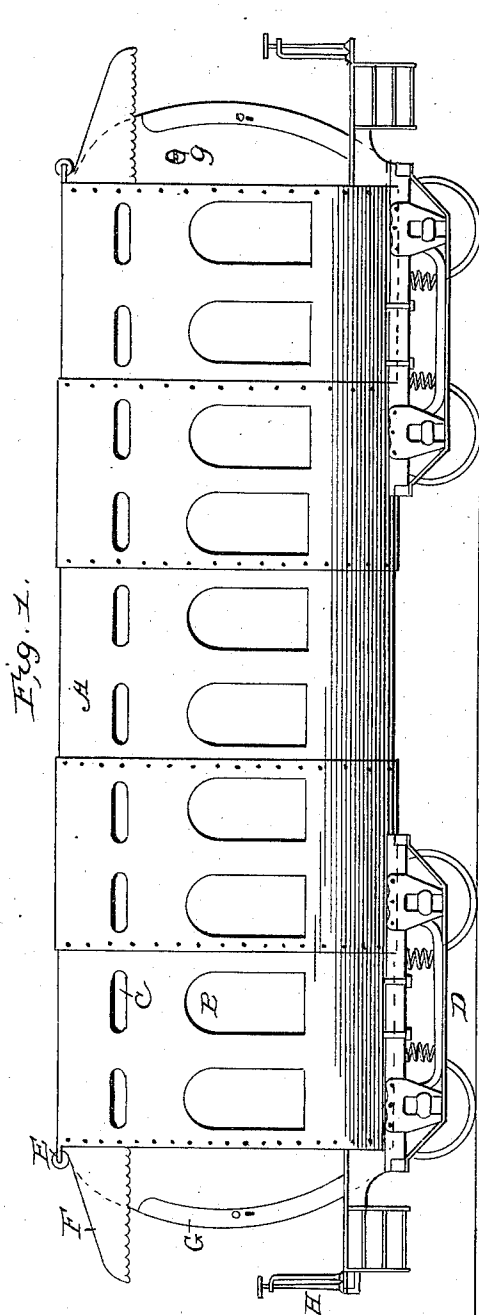
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2 Sheets—Sheet 1.

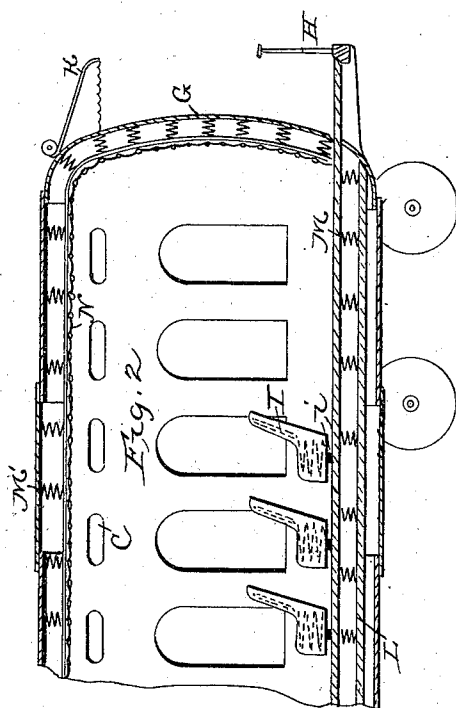
C. ZIMMERMAN.
PASSENGER CAR.

No. 542,746.

Patented July 16, 1895.



Attest
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Notary Public



Inventor
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by Geo. S. Thurman
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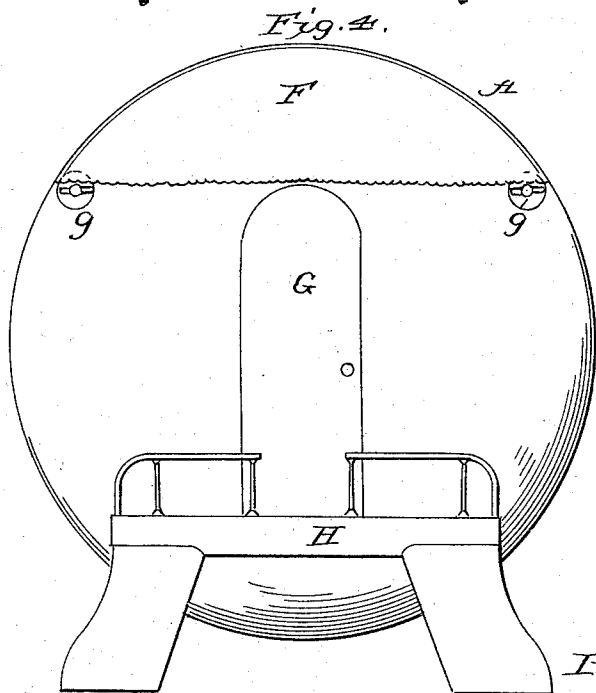
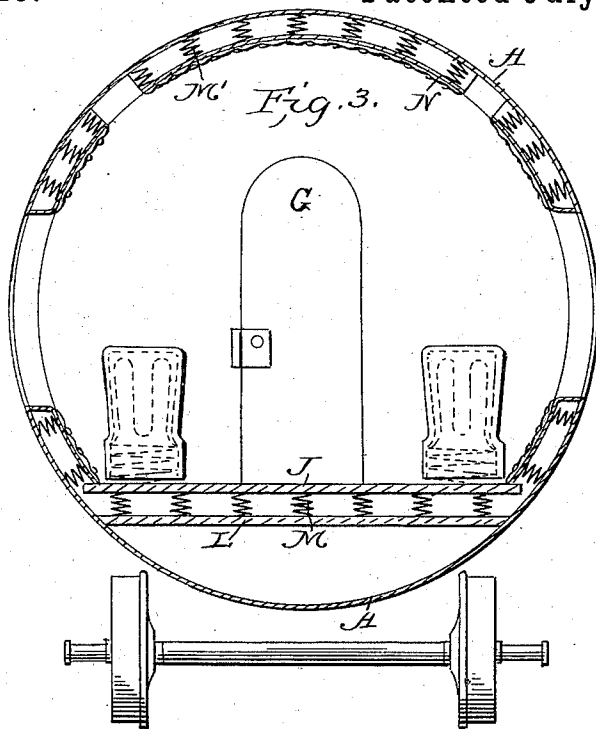
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PASSENGER CAR.

No. 542,746.

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UNITED STATES PATENT OFFICE

CASPER ZIMMERMAN, OF CHICAGO, ILLINOIS.

PASSENGER-CAR.

SPECIFICATION forming part of Letters Patent No. 542,746, dated July 16, 1895.

Application filed March 11, 1895. Serial No. 541,298. (No model.)

To all whom it may concern:

Be it known that I, CASPER ZIMMERMAN, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Passenger Cars; and I do 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, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

My invention relates to a railroad passenger-car and can be used with a slight modification as an express and mail car.

This invention is an improvement over the patent which was granted to me for mail or express cars, said patent dated April 17, 1894, No. 518,477.

The object of my invention is to provide a passenger-car made of sheet metal, cylindrical in form, with oval ends, and it will be fire-proof and stronger in case of a wreck than the ordinary cars now in use; also, to be more secure than the ordinary cars in case of a collision, and will be much safer for passengers.

A further object of my invention is to provide a passenger-car with double floors for ease and to deaden the sound of the car when in motion, and, further, to provide a passenger-car provided with a hood on each end, said hood made of oil-cloth or rubber and attached to a spring-roller to be rolled up or let down at the will of the trainmen, when needed.

A still further object of my invention is to provide a railroad passenger-car provided with means for creating a draft and give a good circulation of air around the car to keep it cool in hot weather; also, chairs in said cars are made with coil-springs and covered with leather or plush for the comfort of the passengers.

It will be seen from the accompanying drawings that my improved passenger-car is provided with a lining entirely around the inside of the car and around the doors, said lining made of leather or plush, and has springs between said lining and the car to prevent the

passengers from being injured in case of a wreck, should they be thrown against the sides or top of said car.

It is obvious that a passenger-car of this type constructed in the manner as shown will be more safe and convenient and will provide more comfort than the ordinary cars now in use.

With these objects in view my invention still further consists in certain novel details of construction and arrangement of parts to be hereinafter more fully described, and pointed out in the claims.

In the drawings, Figure 1 is a side elevation. Fig. 2 is a half horizontally-sectional view of Fig. 1. Fig. 3 is a transverse vertical sectional view, and Fig. 4 is an end view.

Referring to the drawings, A represents the body of the car, which is made of sheet metal and securely riveted together. Said car is made with a cylindrical body formed of circular curved end plates and circular bands, all lapping and riveted together. Said car has oval ends in order to afford less air resistance than a square-ended car.

D are the trucks, and H are the platforms.

B are the windows, and C are the ventilators.

G are the doors.

g are the openings in the ends of the car to let in cool air in hot weather, in order that the air may circulate around the inside of the car between the car and lining, and is provided with a lid which can be easily removed.

F is the hood, preferably made with oil-cloth, and is provided with the spring-roller E. This hood is designed to be pulled down over the hood-frame K at the will of the trainmen.

L is the lower floor of the car, and J is the inside floor and is mounted on the spiral springs M.

I is the seat, preferably made of coil-springs, with the seat and back made of one piece of round steel bar. That part of the spring which represents the seat is made spirally in form, substantially as shown in the drawings, and covered with leather or other suitable material and is pivoted to the floor at i.

The object of the spiral-spring seat and the

floor mounted on springs is to afford comfort and easy riding for passengers, and also to deaden the sound.

5 N is the leather or plush lining of the car, which extends entirely around the sides, ends, and ceiling of the car.

10 M' are the spiral springs between the shell of the car and lining. The object of these springs is to provide a flexible lining for the car in case of a collision or wreck, should the passengers be thrown violently against the same, to prevent the loss of life and limb.

15 It is obvious that many minor changes can be made and substituted for those shown without in the least departing from the nature and spirit of the invention.

What I claim, and desire to secure by Letters Patent, is—

20 1. A passenger car with a cylindrical body, formed of circular curved end plates, and circular bands, all lapping and riveted together, with ventilator openings near the top of the car, and with windows at the sides of the car, said car provided with flooring mounted on
25 springs, and with the inside of the car lined with leather or plush, and springs interposed between said lining and the car, substantially as shown and described.

2. A railroad passenger car with a cylin-

30 drical body formed of circular curved end plates, said end plates provided with a door and circular bands, all lapping and riveted together with ventilator openings near the top, and windows and sides, a flexible hood over each end actuated by means of a spring
35 roller, a means for providing a current of cold air when said car is in motion, substantially as shown and described.

3. A railroad passenger car with a cylindrical body, formed of circular curved end
40 plates and circular bands, all lapping and riveted together with ventilators near the top, and windows on each side, a loose flooring in said car mounted on springs, a suitable number of spring chairs made with a single piece
45 of bar steel with the seat of the spring made spirally and pivoted to said floor, the sides, ends and ceiling of said car provided with flexible lining, a suitable number of spiral springs between said lining and the shell of
50 the car, substantially as shown and described.

In testimony whereof I affix my signature in presence of two witnesses.

CASPER ZIMMERMAN.

Witnesses:

JOHN KUPP,

JOHN J. VAUGHAN.