

E. HIMROD.

Car Heater.

No. 87,846.

Patented March 16, 1869.

Fig: 1.

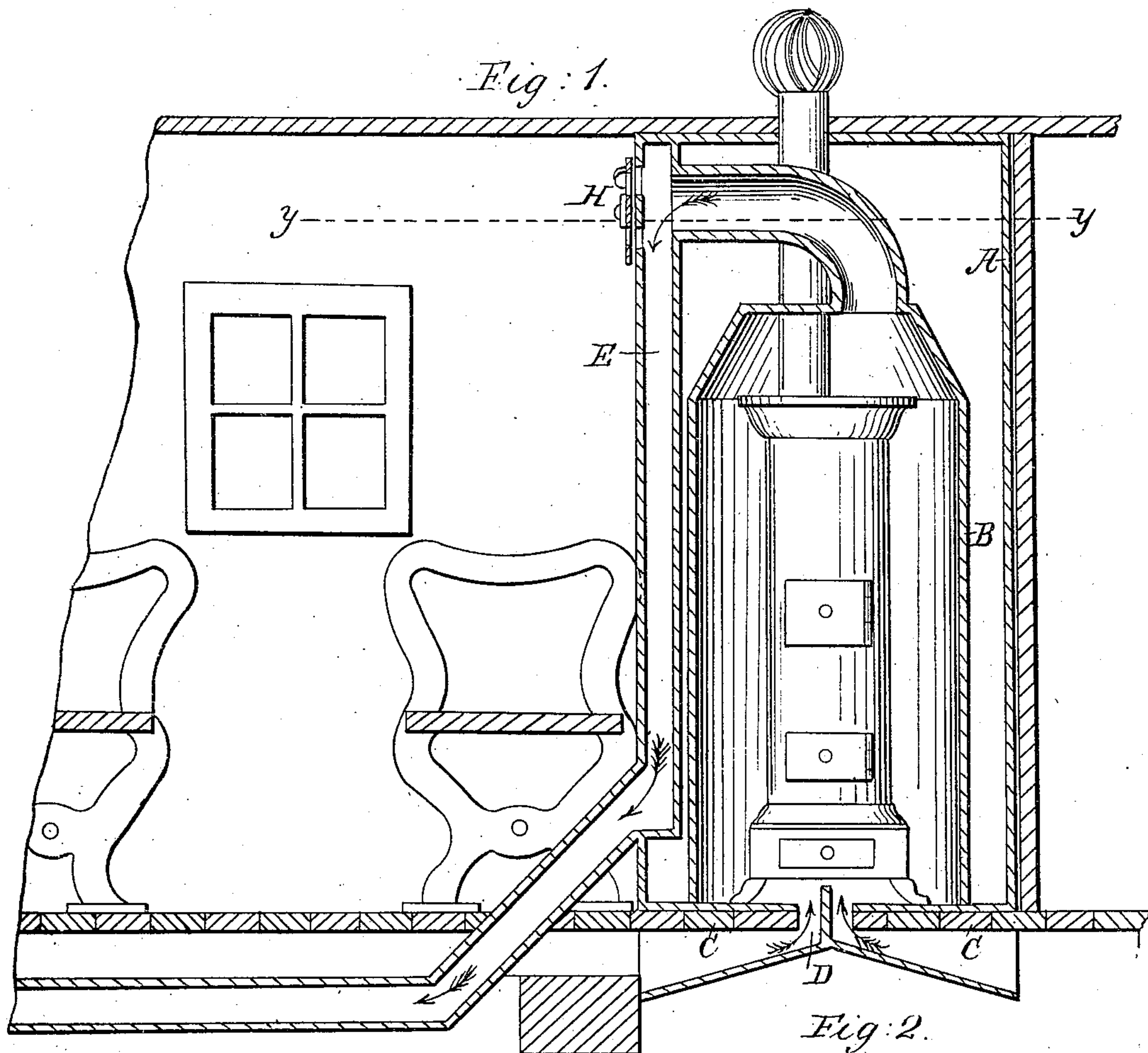
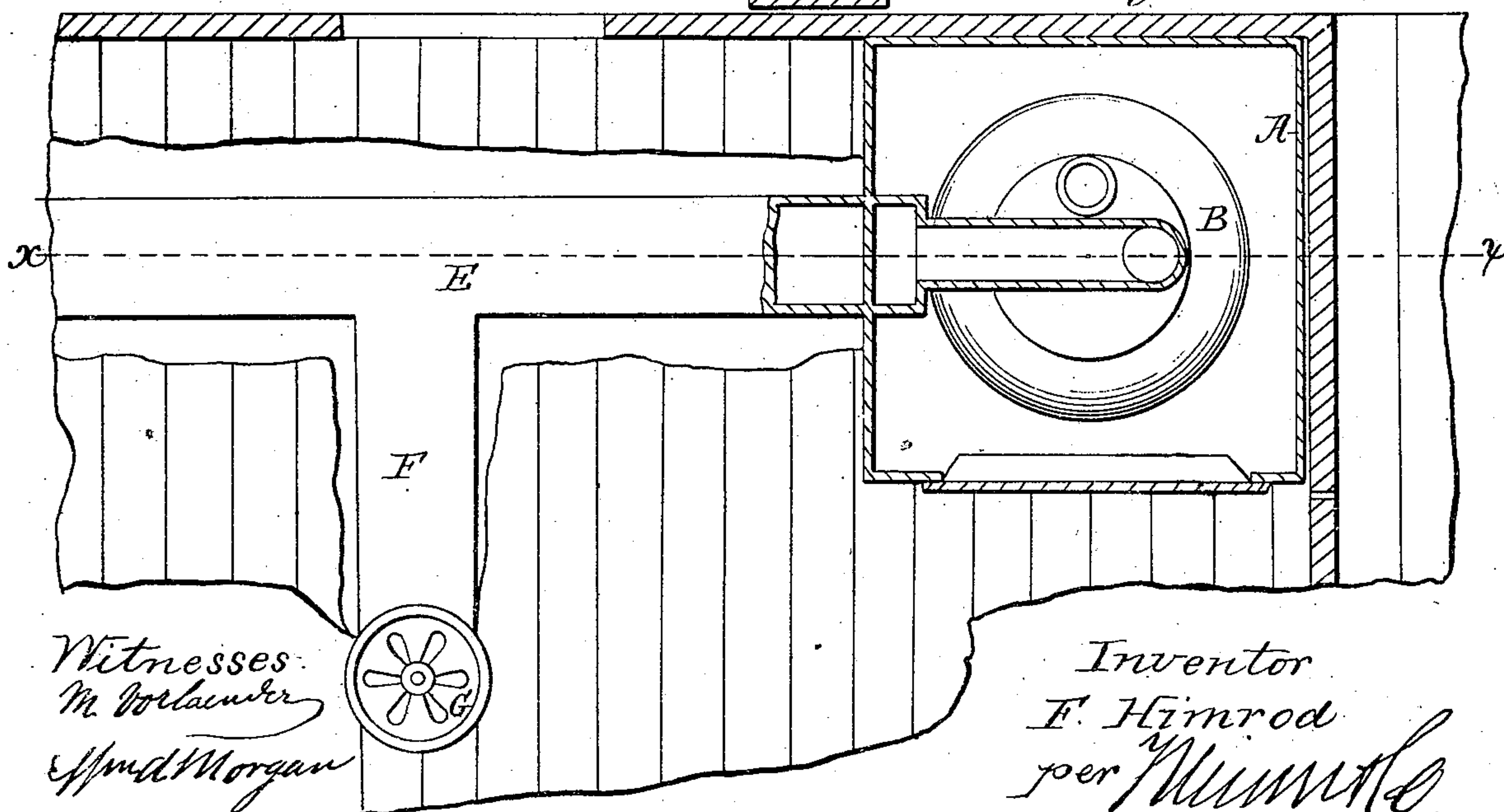


Fig: 2.



Witnesses:
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UNITED STATES PATENT OFFICE.

EDWARD HIMROD, OF DUNMORE, PENNSYLVANIA.

CAR HEATER AND VENTILATOR.

Specification forming part of Letters Patent No. **87,846**, dated March 16, 1869.

To all whom it may concern:

Be it known that I, EDWARD HIMROD, of Dunmore, in the county of Luzerne and State of Pennsylvania, have invented a new and Improved Car Heater and Ventilator; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

This invention relates to new and important improvements in heating and ventilating railroad-cars, whereby many advantages are obtained over any method heretofore known.

The invention consists in the peculiar arrangement of the parts of the apparatus, whereby the above results are obtained, as will be hereinafter more fully described.

In the accompanying plate of drawings, Figure 1 represents a longitudinal section of a car through the line *x x* of Fig. 2. Fig. 2 is a horizontal section through *y y* of Fig. 1, also showing a portion of the car-bottom with the floor broken away, in order to expose to view the air-pipe and register.

Similar letters of reference indicate corresponding parts.

A represents a fire-proof chamber, made of boiler-iron or other suitable material, and placed in one corner of or in any position in the car where it will be most out of the way. B is an air-tight casing within the chamber, which contains a stove or furnace, the stove being represented in red color. The car is also represented in red color in the drawing.

The cold air enters the casing B from beneath the car-floor through funnel-shaped apertures C C, so that a current will be forced through the funnels and into the casing around

the furnace or stove by the motion of the car when the car is moving in either direction. These funnels are divided by the partition-plate D, so that the current will be directed upward, as indicated by the arrows.

The air, after becoming heated by contact with the stove and casing in passing upward, is discharged near the top of the car into the flue E, by which it is conveyed down beneath the floor of the car, as indicated by the arrows, to near the middle, where it is discharged into the car through one or more registers by branch pipes, as seen in the drawing at F and G, the latter of which letters denotes a register. H is another register near the top of the car for regulating the temperature of the air.

The chamber A is kept closed by a fire-proof door, which fastens securely with a spring-lock.

In case of accident or upsetting of the car no fire can escape from the chamber, and consequently no passenger or property can be injured by burning.

In the summer season, as well as in cold weather, the windows and doors of the car may be kept closed, and the car will be well ventilated by a constant supply of fresh pure air forced in by the motion of the car when moving in either direction.

I claim as new and desire to secure by Letters Patent—

The arrangement, with relation to the metallic fire-proof chamber A, of the casing B, funnel-shaped apertures C, separated by the partition D, the pipe E, and lateral pipes F, as herein described, for the purpose specified.

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