(No Model.)

G. VAN NOSTRAND.

RAILROAD CAR.

No. 265,896. Patented Oct. 10, 1882.

Fig. 2.

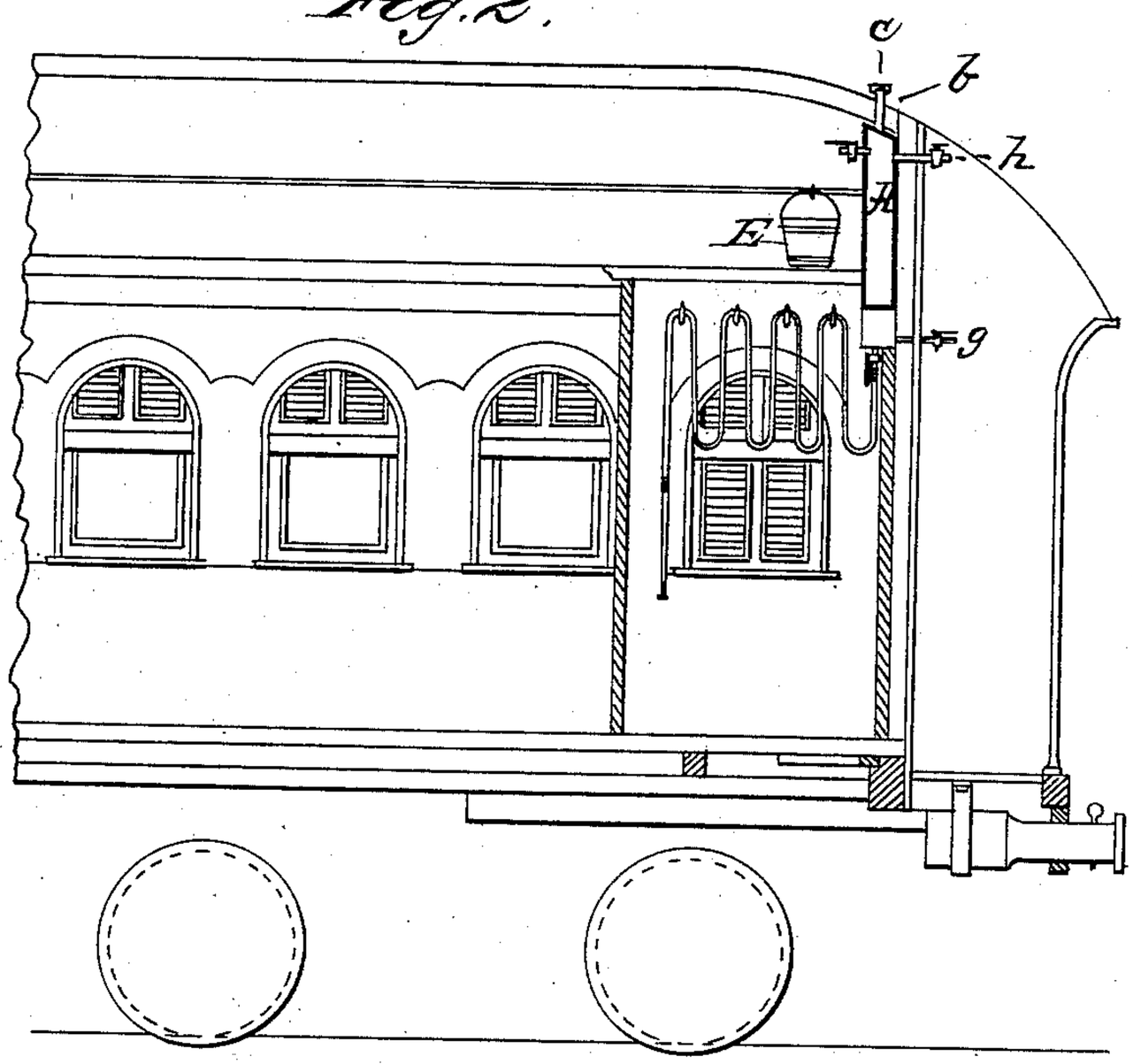
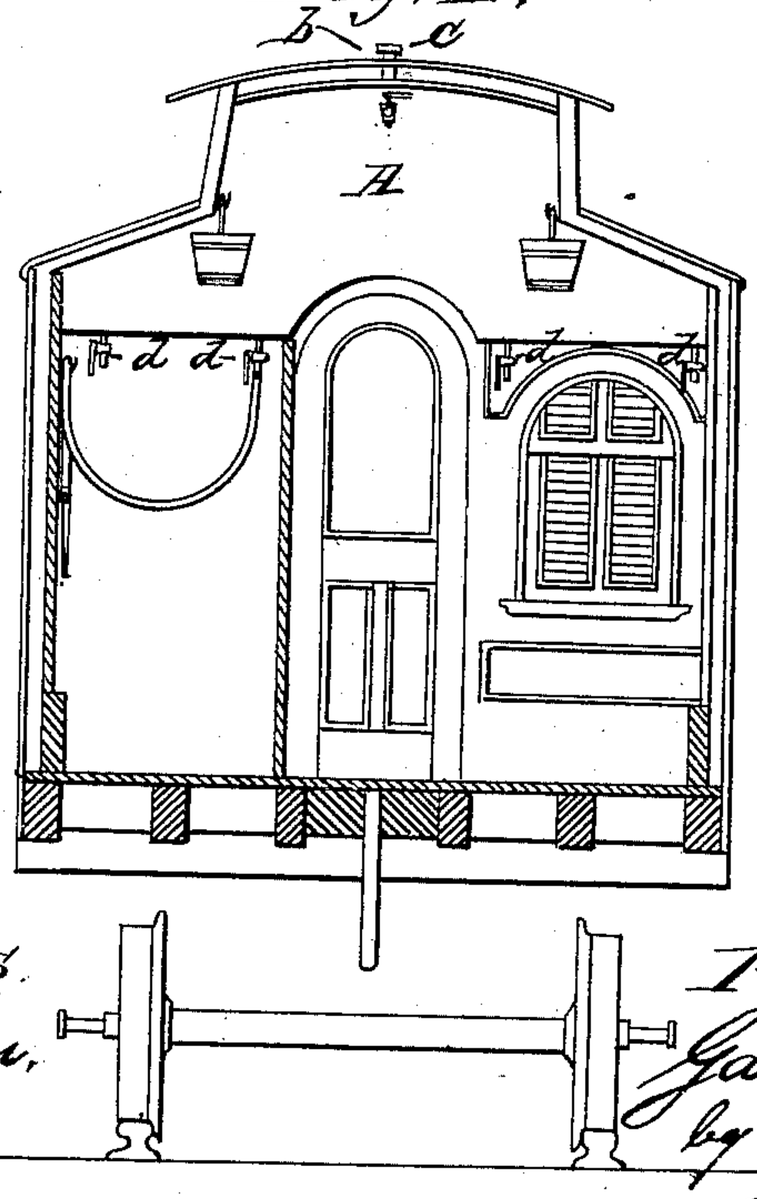


Fig. 1.



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UNITED STATES PATENT OFFICE.

GARRET VAN NOSTRAND, OF NYACK, NEW YORK.

RAILROAD-CAR.

SPECIFICATION forming part of Letters Patent No. 265,896, dated October 10, 1882.

Application filed February 13, 1882. (No model.)

To all whom it may concern:

Be it known that I, GARRET VAN NOSTRAND, of Nyack, in the county of Rockland and State of New York, have made an invention of certain new and useful Improvements in Railroad-Cars; and I do hereby declare that the following, in connection with the accompanying drawings, is a full, clear, and exact description and specification of the same.

This invention has reference to the extinguishment of fires in railroad-cars, whether such fires be caused by the overheating of the heating apparatus or by the displacement or injury thereof incident to a collision or to the running of a car off of the track; and its leading feature is the combination of the car-body with a flat cistern for water, arranged in the upper part of the car-body, and fitted with suitable means, as hereinafter described, for filling the same and for drawing water from it at various places at so high a level that the water may be conveyed through hose by gravitation to different parts of the car.

In order that the invention may be fully understood, I have represented in the accompanying drawings and will proceed to describe the mode in which have applied my invention to practical use.

Figure 1 of said drawings represents a transverse section of a railroad-car. Fig. 2 represents a longitudinal section of one end thereof.

The water-cistern A represented in said drawings is made flat and of a form adapted to fit the end of the car above the doorway and windows, so that it does not interfere with the passage into or out of the car, or with the action of the windows, while, on the other hand, it occupies a space that is over the coal-bin for the stove and over the heads of the sitters on the seats, which space does not reduce the sitting-space for passengers. Hence the water-cistern located in this position does not affect injuriously the capacity of the car for passengers, while it furnishes the means of carrying a supply of water for the extinguishment of fire at so high a level that it will run by gravitation through a hose to any part of the car. The cistern located in this position I term an "elevated car-cistern," and its capacity may be varied, as found expedient, by making it of greater or less horizontal thickness between its walls. A convenient thickness is five inches, in which case it will have a capacity of about sixty gallons. It may be constructed of tank-iron, which by preference is galvanized, and is riveted and soldered at the joints, and in order that it may be made of thin metal, so as to be of comparatively light weight, its flat sides should be connected by cross-stays. This flat cistern is combined with the car by bolts, which secure it to the end frame of the car-body, so that the car-body forms the support for the cistern. The bolt-shanks may either be riveted to the metal of the cistern or inserted through eyes secured to it or inserted through tubular cross-stays. Cleats also may be secured to the walls of the car-body to support the said cistern.

In order that this elevated car-cistern A may be filled, its upper edge is fitted with a pipe, *b*, which extends through a hole in the roof of the car and is closed by a screw-cap, *c*. In order that the water may be drawn within the car, the elevated car-cistern is fitted with one or more stop-cocks, *d*, to one or more of which a rubber or other hose should be attached, ready for use, such hose being folded or faked up upon hooks at the side or end of the car. One or more fire-buckets, E, (of leather or rubber,) should be suspended in the car in the vicinity of the elevated car-cistern.

In case of a collision accompanied with injury to the car it might be impracticable to get at the stop-cocks within the car. Hence the elevated car-cistern is fitted with one or more stop-cocks, *g*, at the exterior of the car, each such stop-cock being combined with the said cistern within the car by a short pipe which is extended through the wall of the car-body.

In case of the accidental overturning of the car the drawing of water from the bottom of the elevated end car-cistern would be impracticable. Hence the said cistern is provided with one or more stop-cocks, *h*, at the exterior of the car, each such stop-cock being combined with the upper part of the said cistern within the car by a short pipe, which by preference is extended through the end wall of the car-body, but may be extended through the side wall or roof thereof. The exterior stop-cocks above described render it easy to draw water from the elevated car-cistern at the exterior of the car even if the

car be turned upon its side or be wholly overturned. Globe-valves may be employed in place of stop-cocks for drawing the water from the said cistern.

Thus far I have described only a single flat elevated end car-cistern for the car; but in practice I apply such a cistern and its appurtenances at each end of each car, thus furnishing each end of each car with an elevated supply of water for extinguishing fires. The elevated location of the cistern is advantageous not only because of its elevation, its ready communication with both the interior of the car and its exterior, and the fact that it does not interfere with the space for passengers, but also because it is in the immediate vicinity of the stove or other heating apparatus, so that if the cistern should be accidentally fractured by a collision the parts of the car adjacent to the stove would be drenched with water from the fractured cistern and the fire of the stove would probably be extinguished, thus preventing the car from taking fire.

Having thus described my invention, I declare that I am aware that reservoirs for water have been arranged in elevated positions in houses in connection with means for drawing water therefrom for any desirable purpose; and that I am also aware that various apparatuses have been contrived for the extinguishment of the fires in railroad-cars, such apparatuses comprising a reservoir of water and a combination thereof with the stove or other heating apparatus. I do not claim such combinations, and the first part of my invention is distinguished from them by the use of a comparatively large and flat water-reservoir arranged in an elevated position at the end of a railroad-car, so as to utilize the space not otherwise occupied, while the other parts of my invention are distinguished by the arrangement of the means for drawing water at the exterior of the car from the elevated reservoir arranged within it.

I claim as my invention—

1. The combination, substantially as before set forth, of the car-body, the flat elevated car-cistern, (arranged in an elevated position at the end of said car-body,) and the stop-cock arranged within said car-body, whereby water may be drawn from said cistern.

2. The combination, substantially as before set forth, of the car-body, the elevated water-cistern, and the stop-cock at the exterior of said car body, whereby water may be drawn at the exterior of the car from the said cistern.

3. The combination, substantially as before set forth, of the car-body, the elevated water-cistern, and the stop-cock at the exterior of said car-body, communicating with the upper part of said cistern, whereby water may be drawn at the exterior of the car from the said cistern when the car is overturned.

In witness whereof I have hereunto set my hand this 10th day of February, A. D. 1882.

GARRET VAN NOSTRAND.

Witnesses:

W. L. BENNEM,

WM. KELLMER.