(No Model.)

C. A. SMITH.

RAILROAD CAR ROOF.

No. 325,634. Patented Sept. 1, 1885.

FIG. 1.

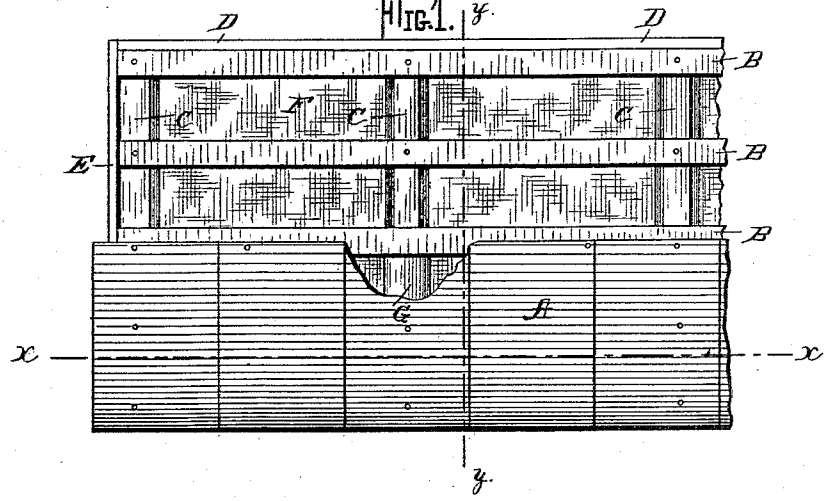


FIG. 2.

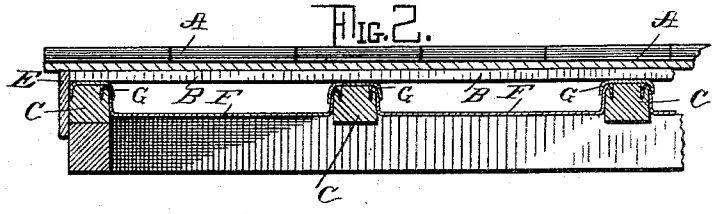


FIG. 3.

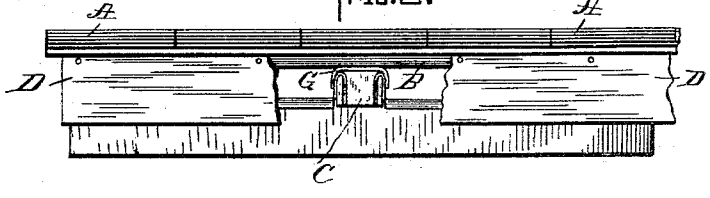


FIG. 4.

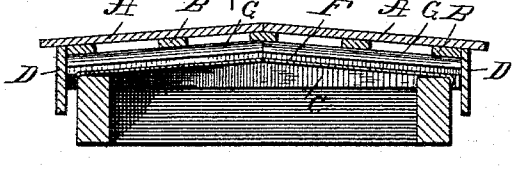
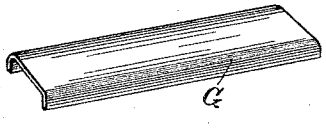


FIG. 5.



WITNESSES

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CHARLES A. SMITH, OF MINERVA, OHIO.

RAILROAD-CAR ROOF.

SPECIFICATION forming part of Letters Patent No. 325,634, dated September 1, 1885.

Application filed July 8, 1885. (No model.)

To all whom it may concern:

Be it known that I, CHARLES A. SMITH, a citizen of the United States, residing at Minerva, in the county of Stark and State of Ohio, have invented certain new and useful Improvements in Railroad-Car Roofs; 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 and figures of reference marked thereon, which form a part of this specification.

My invention has for its object certain improvements in that class of car-roofs which have a wooden outer or over roof and a sheet-metal under roof, with an air-chamber between the two. It consists in certain novel features hereinafter fully described, and specifically pointed out in the claims.

In the drawings, Figure 1 is a plan view of my roof, one side being shown as completed and the other side as uncompleted, the completed side being partly broken away. Fig. 2 is a sectional view on the line *x x*, Fig. 1. Fig. 3 is a side elevation of the roof, the side board being partly broken away. Fig. 4 is a sectional view on the line *y y*, Fig. 1. Fig. 5 is a detail perspective view of the metal cap.

Referring to the drawings, A designates the wooden over roof; B, the purlins, and C the carlings.

The over roof A is of the usual construction, and is provided with the side boards, D, and the end hooks, E, as shown. The wooden over roof is placed above and secured upon the purlins B, as shown. The carlings C are held upon the top edges of the sides of the car, and are made of a length equal to the width of the car, thereby extending entirely across the same. The upper side or top of the carlings are provided with two longitudinal grooves near their opposite edges, into which I fit the edges of the sheet-metal plates forming the under roof, as shown.

The under roof consists of a series of sheet-metal plates, F, supported by the carlings and entirely covering the space between the same. The side edges of the sheet-metal plates are bent up, as shown, fitting flush against the carlings, and are turned into the longitudinal grooves in the top of the carlings. A metal cap, G, is placed on the carlings over the turned edges of the sheet-metal plates, as shown, to prevent the rotting of the carling, as will be understood.

The side boards or eaves, D, are placed a slight distance from the sides of the car, and the ends of the sheet-metal plates are turned down over the sides of the car, thereby forming an exit for any water which may collect on the under roof.

It will be seen that by my construction but one set of purlins is necessary, and the lower set commonly used under the metal roof dispensed with.

I am aware that cars have been provided with double roofs, the under one of which consists of metal plates supported by having their opposite edges enter grooves in the carlings, the latter being protected by a metal cap. The outer roof is directly attached to the carlings and supported thereby. My improvement differs essentially from the above, as specifically pointed out in the claim.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

The combination of the under roof composed of sheet-metal plates supported by carlings, the carlings, the cap-plates placed over the carlings, the purlins resting upon the cap-plates, and the over roof supported by the purlins, substantially as described and shown.

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

CHARLES A. SMITH.

Witnesses:
W. J. YENGLING,
H. W. BURFORD.