

(No Model.)

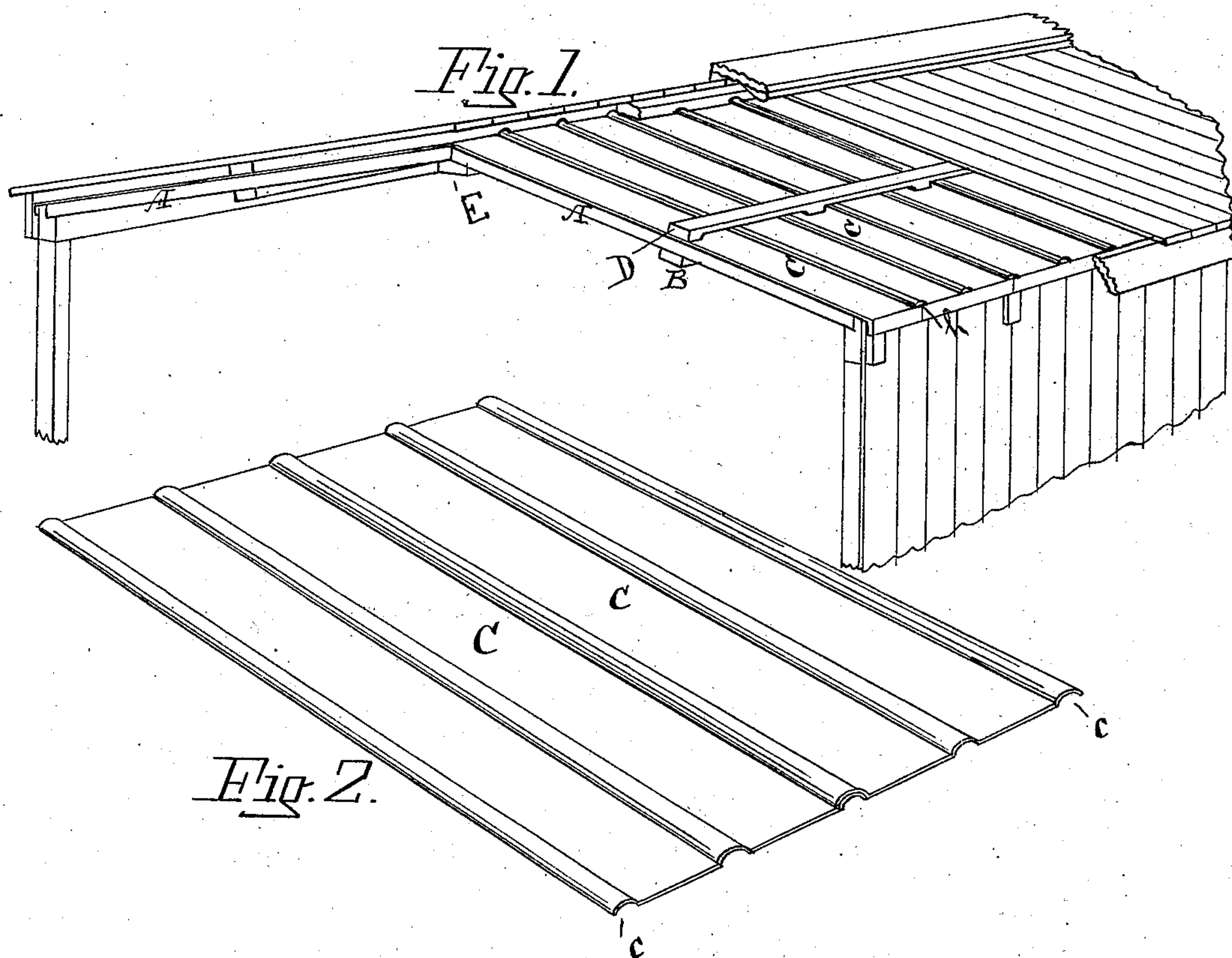
2 Sheets—Sheet 1.

W. H. PAIGE.

CAR ROOFING.

No. 292,675.

Patented Jan. 29, 1884.



Witness,
Geo. B. Tibbitts
E. H. Laird.

Inventor,
William H. Paige
By Geo. W. Tibbitts Atty.

(No Model.)

2 Sheets—Sheet 2.

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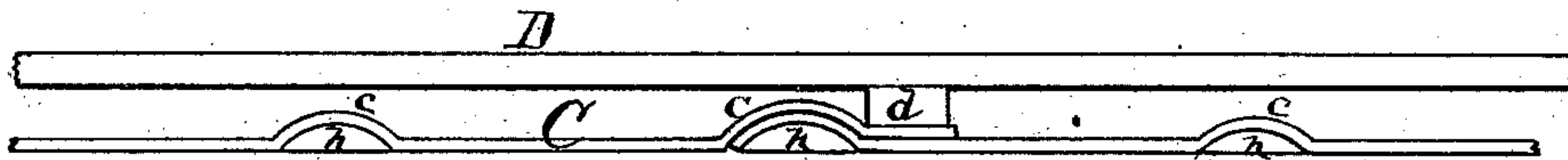


Fig. 5.

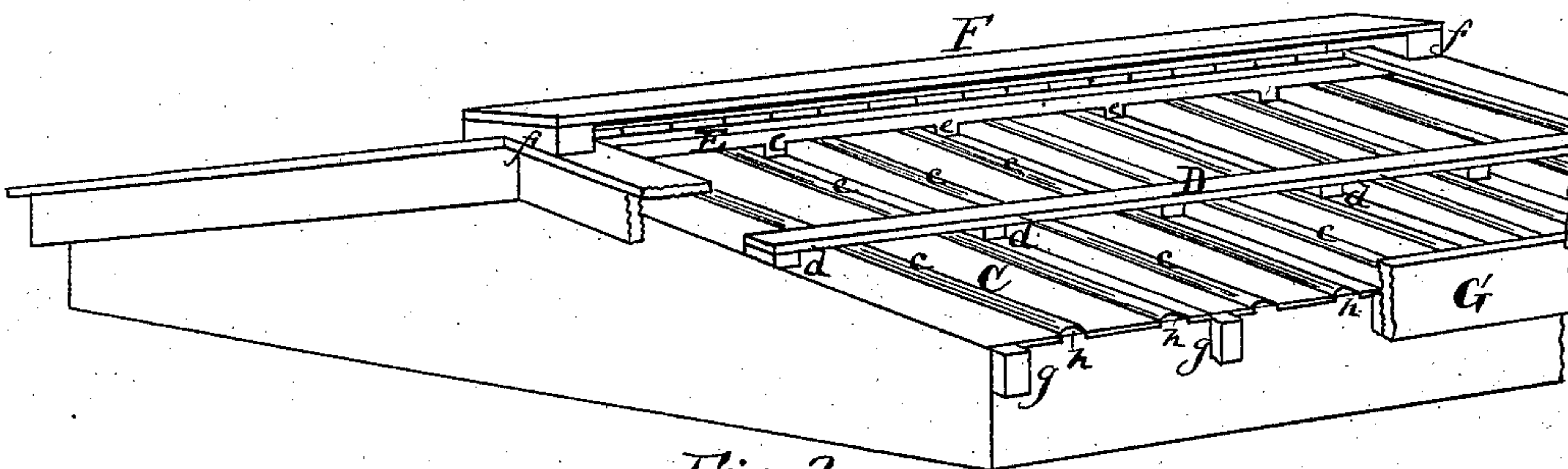


Fig. 3.

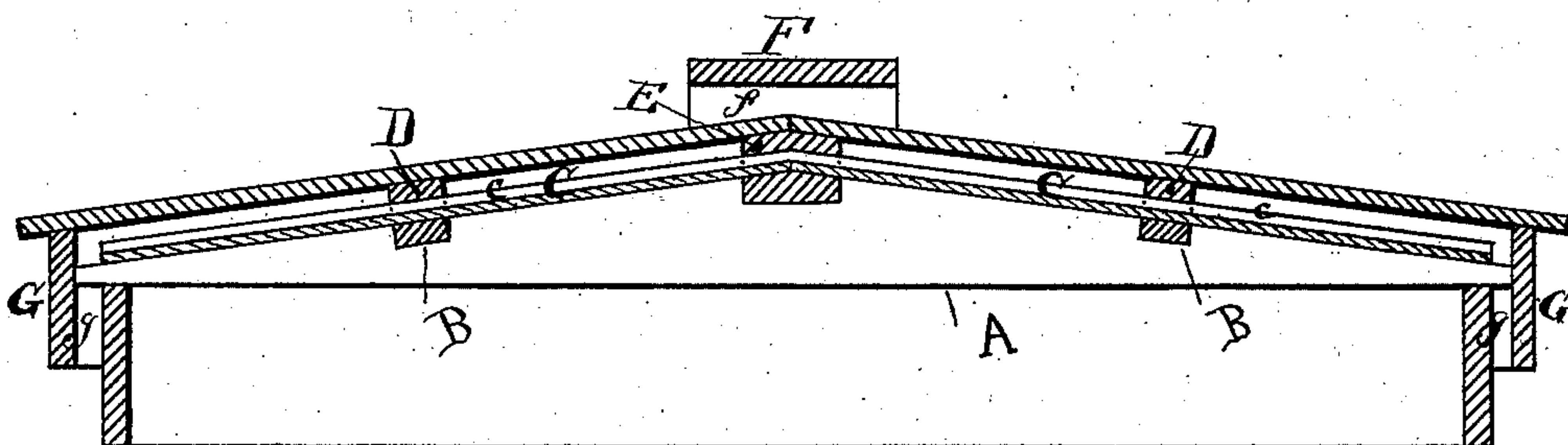


Fig. 4.

Witness.

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UNITED STATES PATENT OFFICE.

WILLIAM H. PAIGE, OF CLEVELAND, OHIO.

CAR-ROOFING.

SPECIFICATION forming part of Letters Patent No. 292,675, dated January 29, 1884.

Application filed October 1, 1883. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. PAIGE, of Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Car-Roofing, of which the following is a specification.

My improvements consist in the peculiar construction and arrangement of prepared paper, or paper material, in combination with the carlines, purlines, ridge-plate, and outer and inner wooden roofing for railway-cars, as hereinafter fully described and claimed.

In the drawings, Figure 1 is a perspective view of the roof of a car having portions of the outer roof broken away or removed, showing one method of constructing and applying my improvements. Fig. 2 is a detached view of paper material, showing the same prepared for laying. Fig. 3 is a perspective view of a car-roof having outer roof removed, showing a modified method of laying and securing the paper material. Fig. 4 is a cross-section of the car-roof shown in Fig. 3. Fig. 5 is an end view of paper material, showing manner of laying, lapping, and joining the side edges of the sheets to one another and the roof.

A in Fig. 1 represents the rafters, and B the purlines, of a car. Over the rafters are laid sheets of prepared paper, C. The prepared paper (the preparation of which is given in my patent of October 30, 1883, No. 287,459) I make with corrugations *c* at the side edges and through the center, for the purpose of enabling the sheets to be laid and secured without nailing through the paper, and thereby avoiding making any holes through it, and preventing the liability of leakage from that source.

Another object in making corrugations in the sheets is principally to give the sheets freedom to yield to the expansion and contraction from heat and cold, which affects car-roofs, and which, in metal roofs, renders them liable to crack or break, thereby injuring them. This cannot be the case in a roof having my improved paper material applied. These sheets may be long enough to extend over the roof from one side to the other, thus avoiding a joint or lapping at the ridge, and facilitating laying them.

Over the sheets C are laid purlines D, hav-

ing their lower sides cut away; or they are supported at intervals by small blocks *d*, secured to their under sides by nails. Said blocks, resting upon the paper sheets, hold them down firmly in place without nailing through them. The purlines are secured at their ends by the frame-work, and, further, by the outer roof-boards. A ridge-piece, E, is made, like the purlines D, with supporting-blocks *e*, which fit over the ridge of the car. These serve also to hold down the sheets. The outer roof-boards are secured to this ridge-piece E, and above the outer roof are placed blocks *f*, which support a run-board, F, over all. At the eaves of the car are attached blocks *g*, outside of which are secured molding-pieces G, to the top edge of which the lower ends of the outer roof-boards are secured. This leaves an open air-space between the paper roofing and the outer roof-boards. Under the corrugations are placed half-round wooden strips *h*, which support them and preserve their curvature.

In Figs. 3 and 4 the paper is represented as laid on a wooden ceiling supported by ordinary ridge-piece and purlines.

Having described my improvements, I claim—

1. For car-roofing, the prepared paper material having corrugations, as and for the purpose specified.

2. In car-roofing, the combination of ridge-piece E, having supporting-blocks *e*, with the prepared paper and outer roofing, as and for the purpose specified.

3. In combination with the corrugated paper roofing-sheets, the corrugation-supporting strips *h*, as and for the purpose specified.

4. In a car-roof, the combination, with the rafters A and purlines B, and the semicircular strips *h*, of the sheets of paper C, corrugated at *c* by means of said strips *h*, and the purlines D, having blocks *d* at suitable intervals apart, whereby said paper is held firmly, as shown and described.

5. In a car-roof, the combination, with the rafters A, purlines B, semicircular strips *h*, sheets of paper C, corrugated at *c* by means of said strips, and the purlines D, having blocks *d* at suitable intervals apart, of the ridge-piece E, having corresponding blocks, *e*, to those of the purlines D, and the run-board

F, resting over said ridge-piece by means of the end blocks, *f*, as set forth.

6. The combination, with the car-roof having the sheets of paper C, the purlines D, having blocks *d*, and the ridge-piece E, having corresponding blocks to those of the purlines D, of the spaced block *g*, secured to the eaves, and

the molding G, secured to the blocks *g*, whereby air-spaces are formed, as set forth.

WILLIAM H. PAIGE.

Witnesses:

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