

(No Model.)

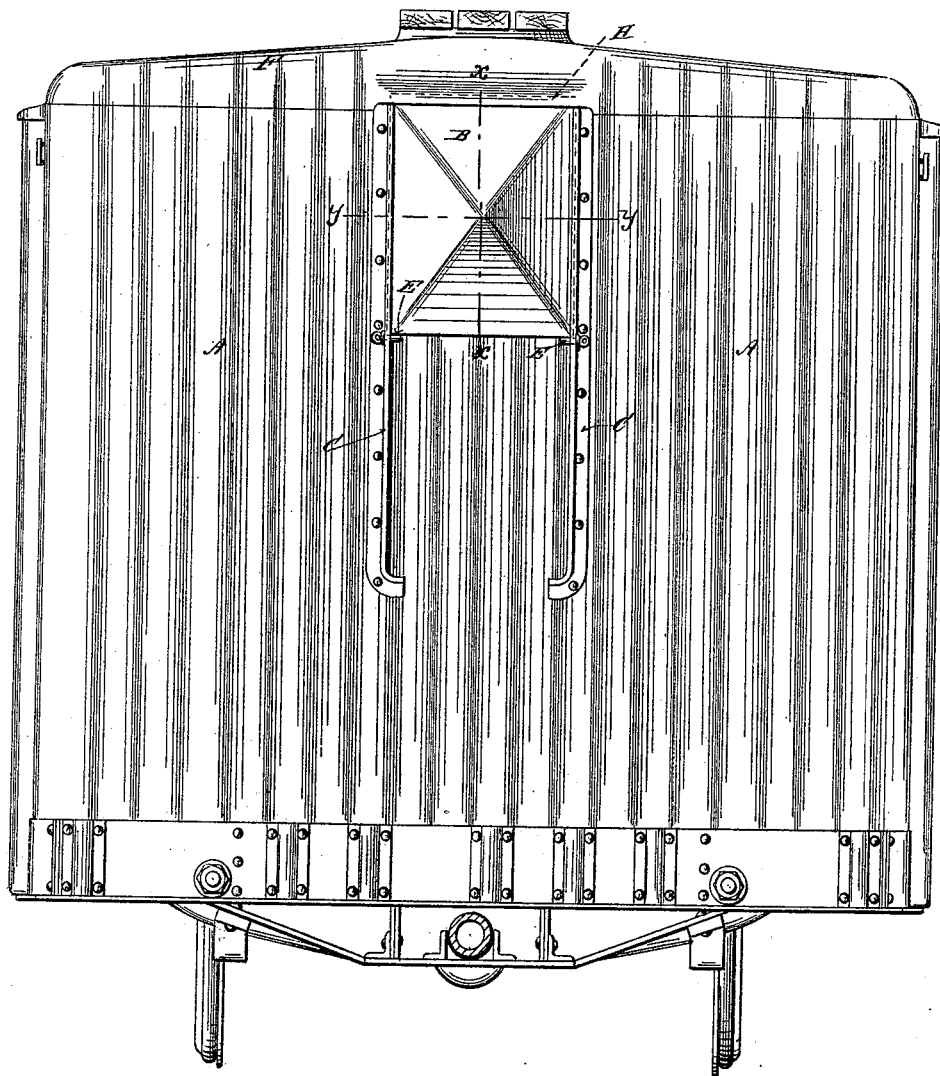
2 Sheets—Sheet 1.

D. L. BARNES.
METALLIC DOOR.

No. 421,652.

Patented Feb. 18, 1890.

Fig.1



Witnesses:
D. W. Gardner
H. Cantant

Inventor:
David L. Barnes
by his attorney
E N Dickerson

(No Model.)

2 Sheets—Sheet 2.

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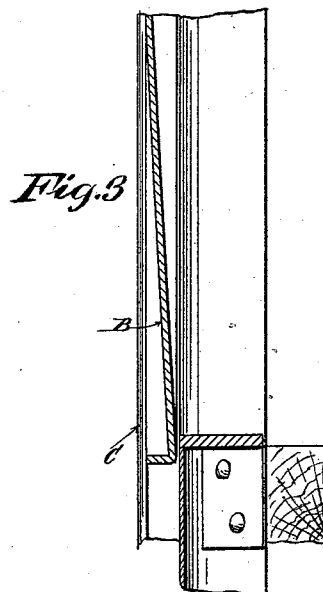
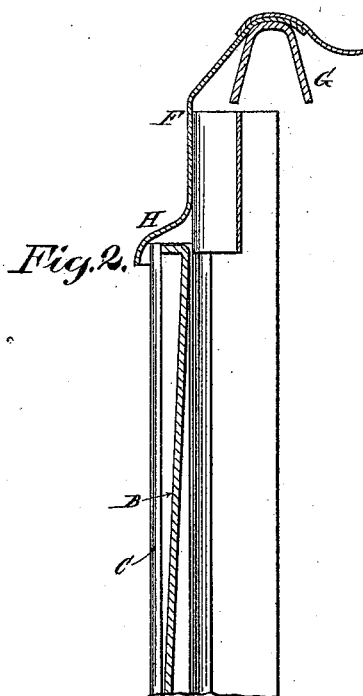
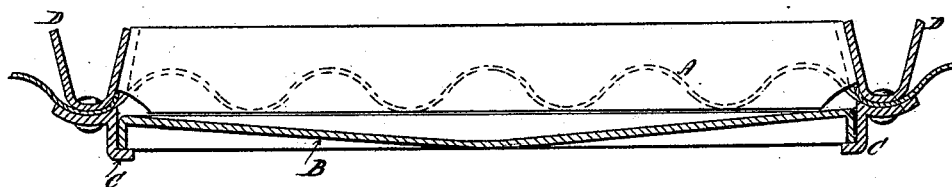


Fig. 4.



Witnesses:
O. W. Gardner
H. Cantant

Inventor:
David L. Barnes
by his Attorney
E. N. Dickerson

UNITED STATES PATENT OFFICE.

DAVID L. BARNES, OF CHICAGO, ILLINOIS, ASSIGNOR TO WILLIAM R. STIRLING, OF SAME PLACE, AND ALEXANDER J. LEITH, OF NEW YORK, N. Y.

METALLIC DOOR.

SPECIFICATION forming part of Letters Patent No. 421,652, dated February 18, 1890.

Application filed July 16, 1889. Serial No. 317,738. (No model.)

To all whom it may concern:

Be it known that I, DAVID L. BARNES, of Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Metallic Doors, of which the following is a full, true, and exact description, reference being had to the accompanying drawings.

This invention relates to an improvement in metallic doors, and is shown as especially adapted to the end doors of freight-cars. The details will be readily understood from the accompanying drawings, in which—

Figure 1 represents an end elevation showing the door closed; Fig. 2, a vertical section through the upper part of the door on the line $x x$; Fig. 3, a vertical section through the lower part of the door; Fig. 4, a transverse horizontal section on the line $y y$.

The door is shown as applied to a car having a corrugated end A. The door itself B is made of pressed steel in the form of a flat pyramid and travels vertically in the flanged guides C, having the general shape shown in Fig. 4, and which are attached by riveting through the corrugated metal to the end post D. The door itself is held in position by any suitable contrivance—as, for instance, pins E.

The upper part of the door is protected by a shed F, the upper part of which is bent around the top of the inverted-U-shaped carling G, to which the corrugated roof may like-

wise be attached, as shown in Fig. 2. This end shed F fits over the corrugations on either side of the door, but is bent out over the top of the door, as shown at H, so as to prevent the ingress of water at that point. It is made of one piece of pressed steel running transversely of the car, as shown.

The remainder of the car may be constructed in any suitable manner.

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

1. The car-door herein shown, consisting of a plate of pressed steel pressed into the form of a flat pyramid, substantially as described.

2. The combination of the pressed-steel door B, the flanged guides C C, the corrugated sides of the car which said guides fit, and the internal supporting-post D, substantially as described.

3. The transverse water-shed F, made of pressed steel and extending the width of the car and having the projecting portion H, in combination with the door B, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

DAVID L. BARNES.

Witnesses:

ANTHONY GREF,
H. COUTANT.