

(No Model.)

A. NORTROP.  
METALLIC CEILING.

No. 330,917.

Patented Nov. 24, 1885.

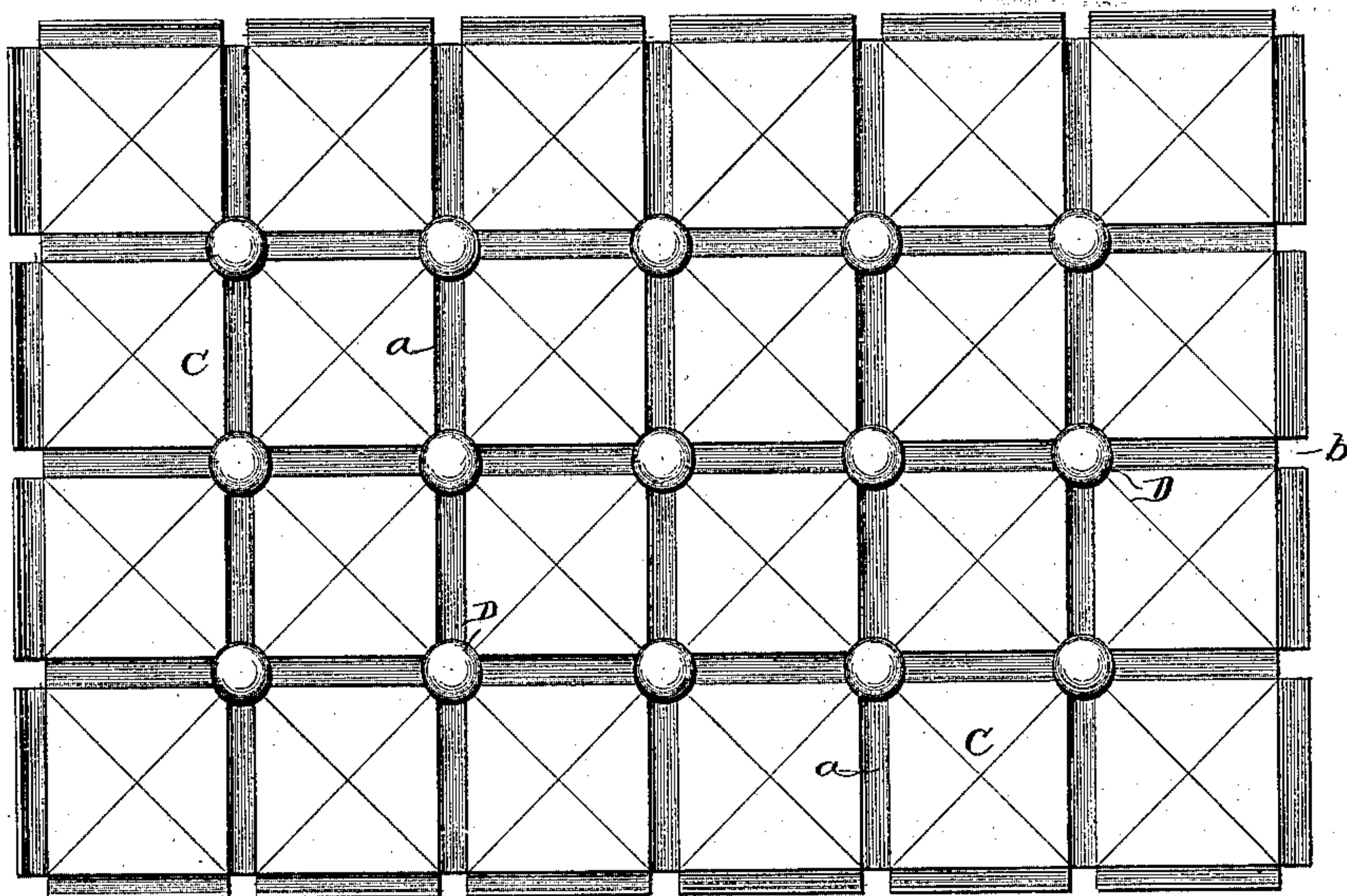


Fig. 1.

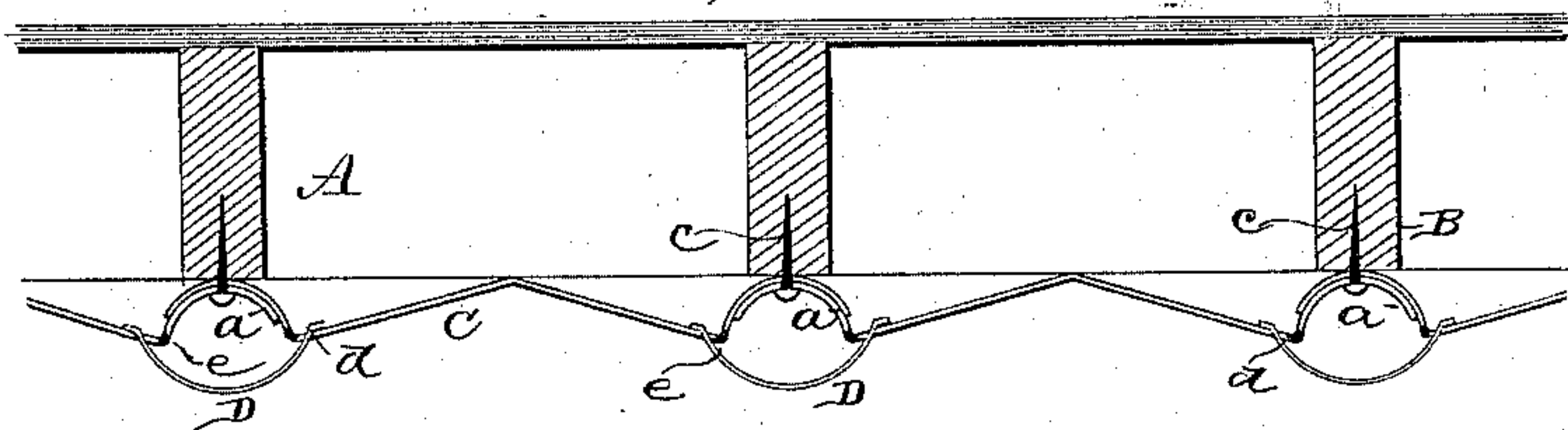


Fig. 2.

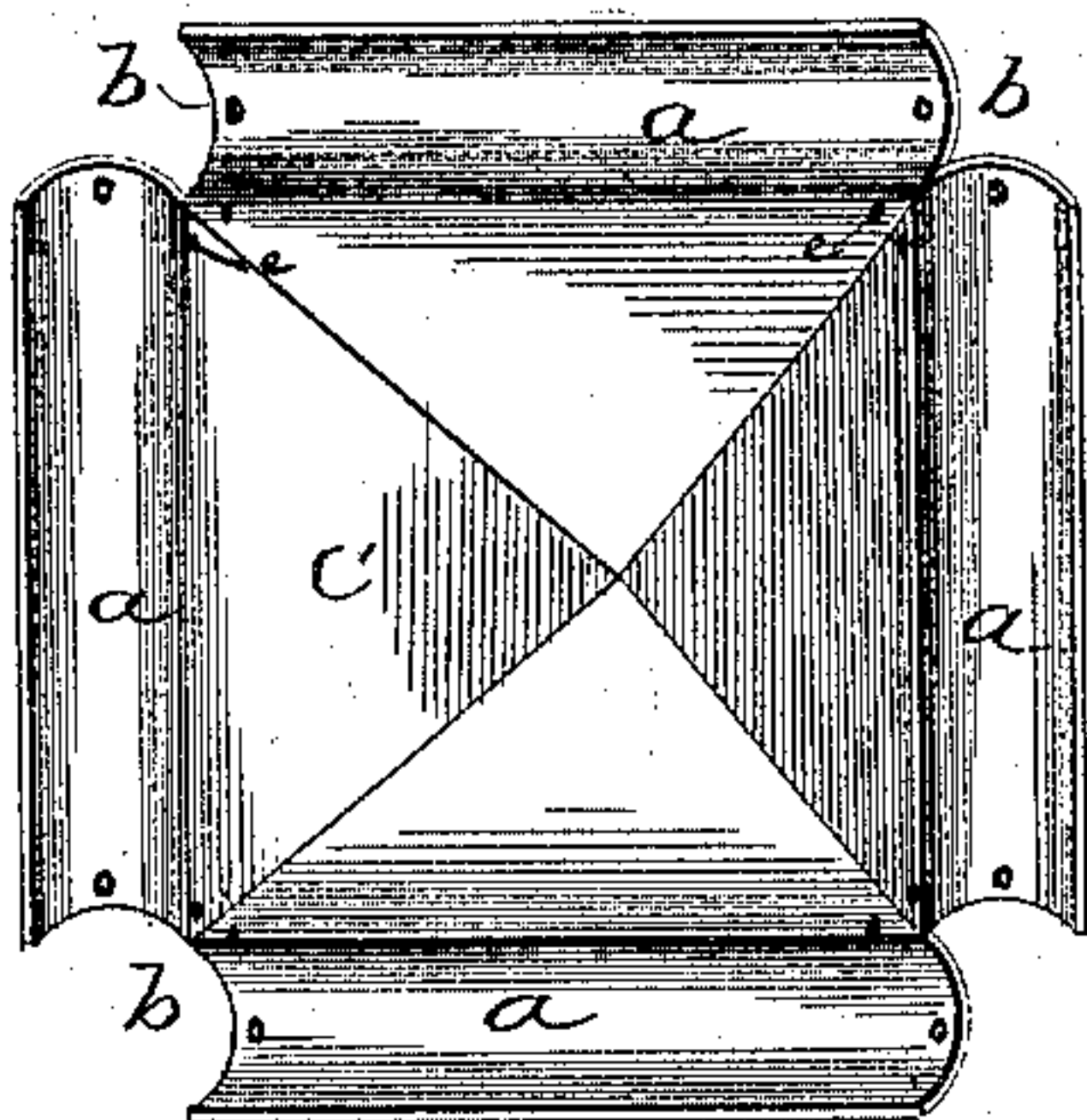
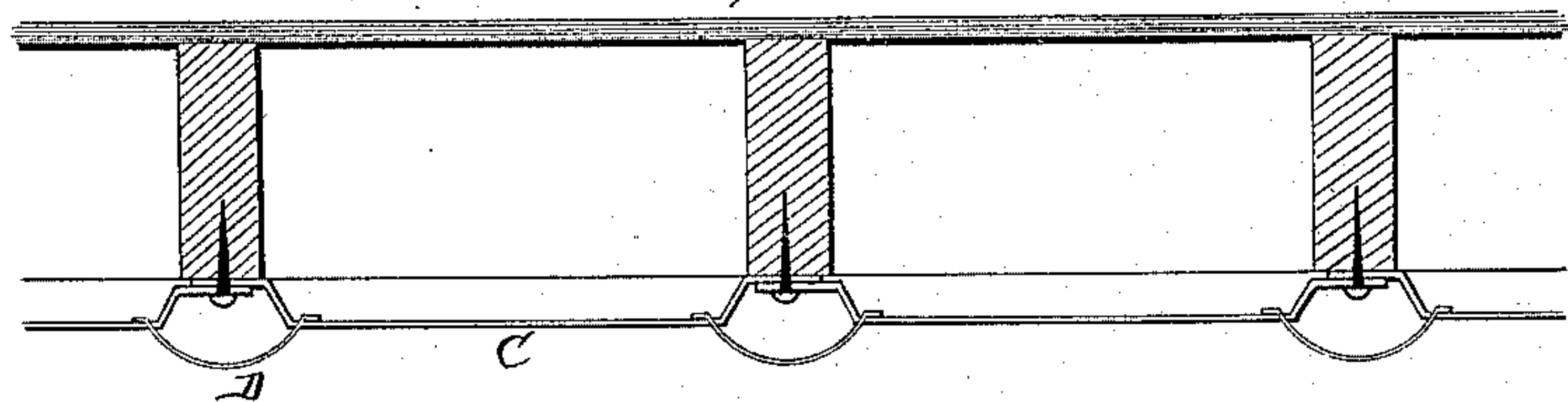


Fig. 3.

WITNESSES

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# UNITED STATES PATENT OFFICE.

ALBERT NORTHROP, OF PITTSBURG, PENNSYLVANIA.

## METALLIC CEILING.

SPECIFICATION forming part of Letters Patent No. 330,917, dated November 24, 1885.

Application filed June 29, 1885. Serial No. 170,110. (No model.)

*To all whom it may concern:*

Be it known that I, ALBERT NORTHROP, of Pittsburgh, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Metallic Ceilings; and I do hereby 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.

My invention relates to an improvement in metallic ceilings, the object being to provide a metallic ceiling of such construction that it shall be of comparatively small cost in its manufacture and present a neat and finished appearance when applied, and capable of providing for the escape of any water that may leak onto the ceiling due to leakage in the roof or defective water-pipe.

With these ends in view my invention consists in certain features of construction and combinations of parts, as will be hereinafter described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a plan view of a metallic ceiling constructed in accordance with my invention. Fig. 2 is a transverse section. Fig. 3 is a plan view of one of the sheet-metal panels, and Fig. 4 is a transverse section of a modification.

A represents the ceiling. If plastered, the furring-strips B are secured thereto. If not plastered, the metallic ceiling may be attached to the flooring-joists.

C represents one of the sheet-metal panels. Each one of its edges is provided with a molding, *a*, which may be curved or channeled, as represented in Figs. 2 and 3, or may be made of straight or angular flanges, as represented in Fig. 4. The corners of the panels are cut away, as shown at *b*, so that when they are interlocked with each other, as illustrated in the drawings, openings will be formed at the corners of the panels, which openings are covered and concealed by rosettes D or other suitable ornaments. The panels are secured to the furring-strips B by means of nails or screws *e*, which are concealed by the rosettes D.

The sheet-metal panels may be made of plain sheet metal; but I preferably use corrugated sheet metal, as it imparts stiffness to the panels, and also allows for expansion and contraction in a direction transversely to the corru-

gations, and thereby prevents the ceiling from warping or buckling. The panels may be flat or concave or convex. Preferably they are made with raised centers, as illustrated in the drawings, as such shape enhances their stiffness, and also directs the flow of any water that may leak through onto the ceiling to the channels *d* at the sides of the panels, from which the water finds escape through openings *e* onto the rosettes, and thence to the floor.

While I preferably provide the panels with the water-escape openings *e*, as it insures the ceiling against rusting out in the event of leakage of water thereon due to a defective roof, water-pipe, or other cause, yet I do not limit myself to such constructions, as they may of course be made without any such openings. When the openings *e* are formed in the panels, they are covered and concealed by the rosettes, and hence in no wise detract from the neat and finished appearance of the ceiling.

Many different forms of moldings or flanges may be employed, and they may or may not be made to interlock with each other. The flanges or moldings may be constructed to allow for expansion and contraction of the panels, and thus prevent any warping or buckling of the ceiling. The holes in the edges of the panels for the insertion of the fastening nails or screws are preferably made of greater diameter than the nails or screws, to allow of the expansion and contraction of the panels.

As it is evident that many slight changes in the form and construction of the parts might be resorted to without departing from the spirit of my invention, I would have it understood that I do not restrict myself to the particular form and construction of parts shown and described; but,

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

1. A metallic ceiling consisting of panels provided with inverted moldings or flanges, substantially as set forth.

2. A metallic ceiling consisting of panels provided with inverted moldings or flanges and rosettes or ornaments arranged to cover the openings at the junction of the corners of the panels, substantially as set forth.

3. A metallic ceiling consisting of panels provided with inverted moldings or flanges,

nails or screws inserted through said moldings or flanges for securing the panels in place, and rosettes or ornaments arranged to cover and conceal the nails or screws, substantially as set forth.

4. A metallic ceiling consisting of panels provided with inverted moldings or flanges, and with water-escape openings, and rosettes or ornaments for covering and concealing such openings, substantially as set forth.

5. A metallic ceiling consisting of panels having raised central portions and raised

moldings or flanges on their sides, all or in part, and rosettes for covering and concealing the cut-away portions of the panels, substantially as set forth.

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

ALBERT NORTHROP.

Witnesses:

GEO. F. DOWNING,  
S. G. NOTTINGHAM.