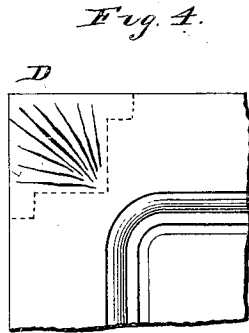
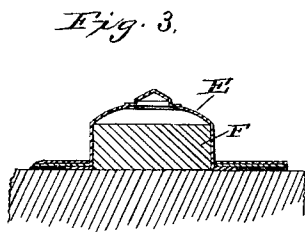
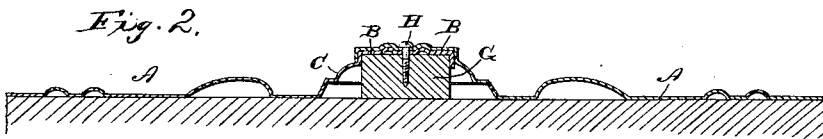
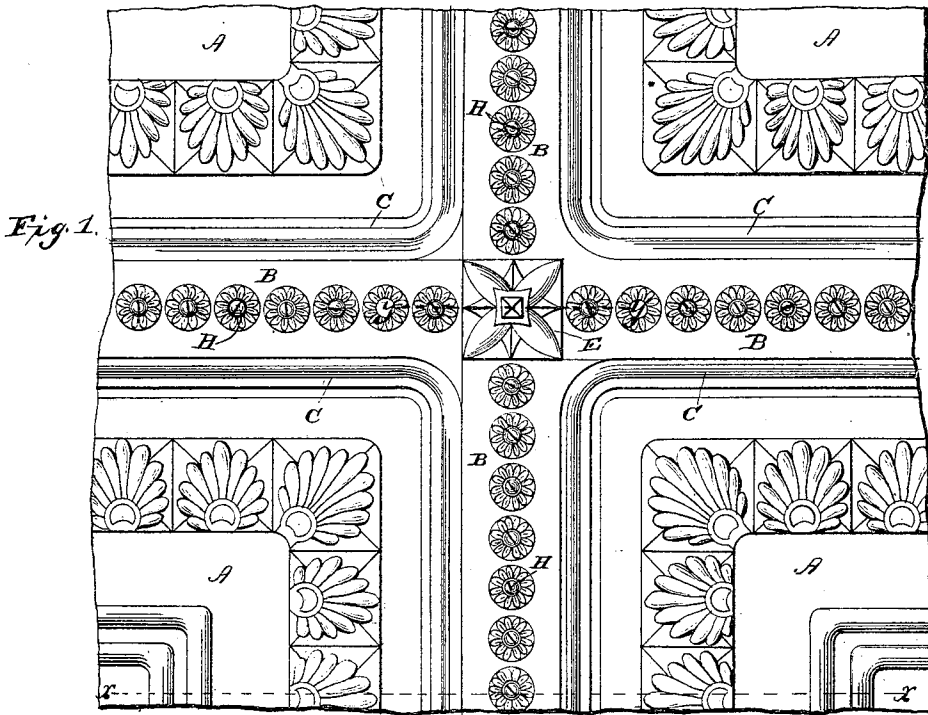


(No Model.)

W. R. KINNEAR.
METALLIC CEILING.

No. 388,285.

Patented Aug. 21, 1888.



Witnesses.
Chas. R. Burr.
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UNITED STATES PATENT OFFICE.

WILLIAM R. KINNEAR, OF COLUMBUS, OHIO.

METALLIC CEILING.

SPECIFICATION forming part of Letters Patent No. 388,285, dated August 21, 1888.

Application filed April 11, 1888. Serial No. 270,351. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM R. KINNEAR, a citizen of the United States, residing at Columbus, in the county of Franklin and State of Ohio, have invented new and useful Improvements in Metallic Ceilings, of which the following is a full and exact description, reference being had to the accompanying drawings, forming part of this specification.

This invention relates to improvements in metallic ceilings, and has for its objects to provide a paneled ceiling in which the beading between the panels may be ornamented in relief, and in such manner as to conceal or render harmonious the fastenings by means of which the ceiling is suspended, to provide ornamental "drops" at the intersections of the beading, and to provide panels for composing the ceiling, so constructed as to obviate the liability to breakage in the corners incident to the panels of the ordinary construction.

To these ends it consists in constructing the panels so that the sharp angles at the corners, which weaken the metal and render it liable to breakage at those points both in the manufacture and by the change of temperature, are avoided.

In the drawings, Figure 1 is a plan view of a section of a ceiling in which is shown an intersection of the beading. Fig. 2 is a sectional view on the line X X in Fig. 1. Fig. 3 is a section through the drops on the line Y Y in Fig. 1. Fig. 4 is a detail view showing the corners of the panels as they are stamped in the first operation. The dotted lines show the lines of the cutting.

The letters A designate the separate panels of which this ceiling is composed. They are provided on the sides with the margins B. The margins B are raised above the body of the panels with the interposed connecting-molding C. In panels of this nature having the edges raised above the body, as constructed heretofore, the connecting-moldings C of the adjoining sides meet at a sudden angle. Under this plan when the sheets are stamped the metal is liable to be torn at the outer edges, where the strain is greatest, by offering to the strain the metal partly broken by forming the angle. This, by dragging the edge open, presented an unsightly appearance, which has to be relieved by soldering in the corner an ad-

ditional piece of metal in which the angle is already formed. It is to obviate this difficulty that I now stamp my sheets with the rounded corner shown in the drawings. The curves of all the lines of the molding C are struck from the same center, which is set back from the innermost curve to prevent the metal being cut by a point formed on the die.

The margins B are so formed that when the panels are suspended they lap and form the dividing-beading. They are of the same shape, preferably flat, as that form offers a greater opportunity for ornamentation and is easier of construction. The outer edge, B, of the margins is turned down to correspond with the rise in the molding C adjoining it. When the extensions are lapped over, the corresponding rise on the molding of the adjoining panel, and being turned from the observer in the room to which the ceiling is applied, is practically a secret joint. The extensions are provided at intervals with perforations for the reception of a fastening, H, which may consist of a round-headed screw or nail, the head or exposed part of which is in harmony with the embossed design.

When the panels are stamped out, as above described, with the rounded corners in the molding C, it is found that the corners D of the margins pucker or buckle, as shown in Fig. 4 of the drawings. To obviate this objection, the corners are cut away square, so as to cut the puckered portion out. (The dotted lines show where the corners are cut.) This leaves at the intersections of the beading between the panels square openings, in which are placed the drops E.

The drops E are constructed of sheet metal and bent around a block, F, of wood or any suitable material. At the base are provided the extensions E', by means of which they are maintained in position.

To suspend this ceiling, the top of the room to which it is to be applied is first prepared by nailing to the sheathing the strips G, which are in thickness equal to the rise of the margins B, thereby forming receptacles into which the panels A are placed.

The panels are placed in position separately with their margins B resting on the strips G surrounding them. The adjoining panels are then placed in position with the meeting mar-

gins lapping, as described. The fastenings H are then driven into the strips G through the perforations in the lapped margins B. The succeeding adjoining panels are then adjusted and secured in position by driving the fastenings H through the perforations in the margins B where they lap. This is continued until all the panels are secured in position, the fastenings being secured in the perforations in the extensions B around the sides of the room. As the panels are secured, the drops E are placed in position with the extensions E' at the base extending under the margins B. In this way without any additional fastening the drops are secured as the work progresses. When the last fastening is driven around the side of the room, the ceiling is firmly secured in position and presents a solid and integral appearance, the joints being concealed as described. It is now painted and finished as desired.

What I claim is—

1. In a ceiling such as described, the panels thereof constructed from continuous sheets, having margins raised above the body and a connecting portion between the body of the panel and the margins, which extend across the corners formed by the prolongation of the inner edge of the margins, substantially as de-

scribed, whereby tearing of the material in the said corners where the panels are stamped is prevented.

2. In a ceiling such as described, the panels thereof constructed from continuous sheets and having margins raised above the body and a connecting portion between the body of the panel and the margins having rounded corners, substantially as described.

3. In a ceiling such as described, the combination of the panels thereof, constructed from continuous sheets and having margins raised above the body, and provided at the corners with angular recesses cut therein, and a connecting portion between the body of the panels and the margins, which extend across the corners formed by the prolongation of the inner edges of the said margins, and ornamental drops fitted to the angular recesses in the corners of the panels, provided with extensions at the base for extending under the margins of the panels, substantially as described.

In testimony whereof I have hereunto set my hand this 5th day of April, A. D. 1888.

WILLIAM R. KINNEAR.

Witnesses:

W. C. GAGER,
F. M. ELLIS.