

H. ADLER.
Metallic Ceilings.

No. 158,881.

Patented Jan. 19, 1875.

Fig 1

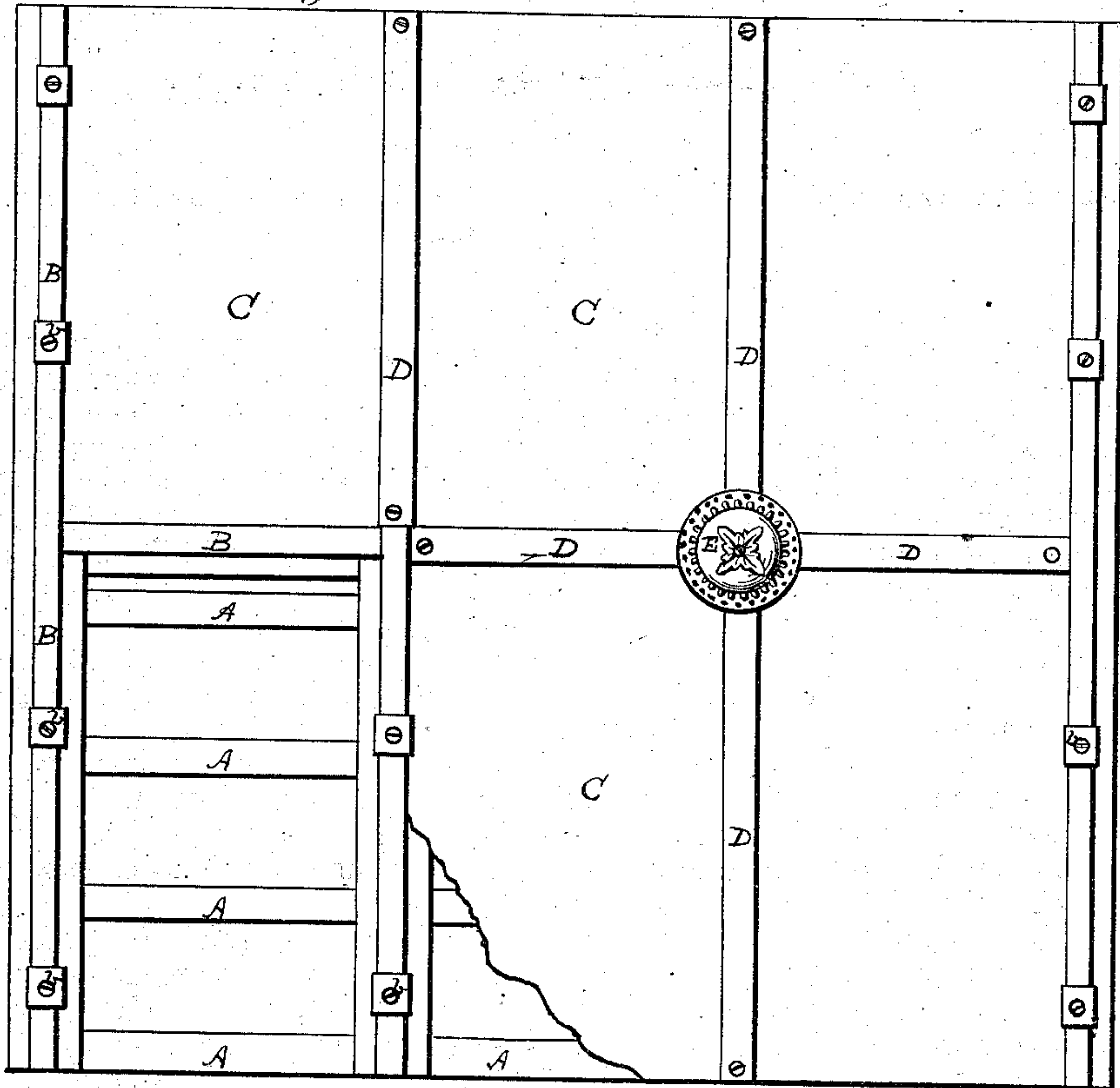


Fig 3

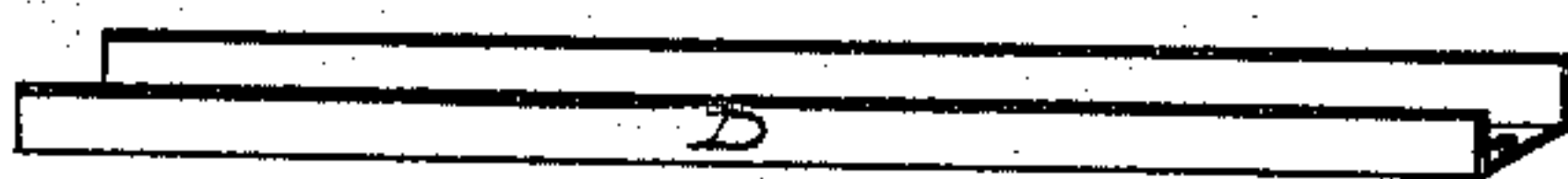


Fig 2

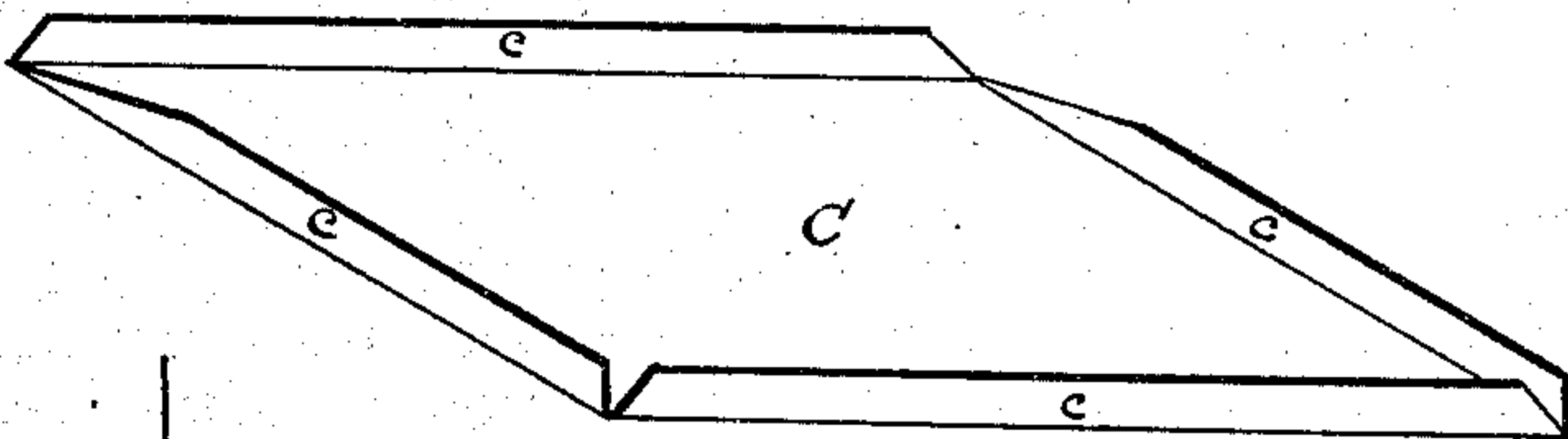
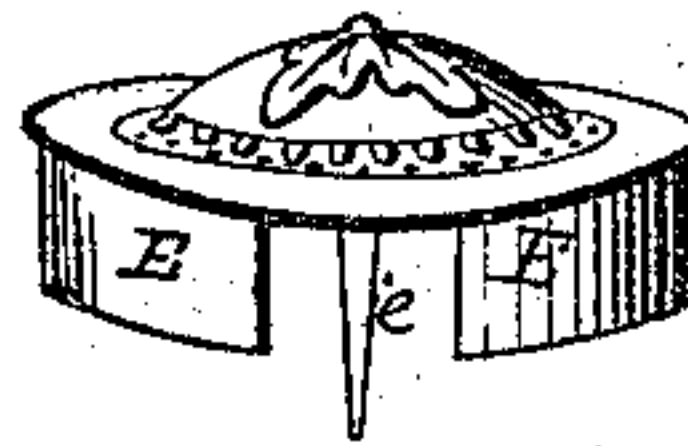


Fig 4



WITNESSES
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UNITED STATES PATENT OFFICE.

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IMPROVEMENT IN METALLIC CEILINGS.

Specification forming part of Letters Patent No. 158,881, dated January 19, 1875; application filed May 20, 1874.

To all whom it may concern:

Be it known that I, HENRY ADLER, of Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Method of Constructing Ceilings; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawing, forming a part of this specification, in which—

Figure 1 is a plan of a ceiling, one of the panels being removed. Fig. 2 is a panel detached. Fig. 3 is a cap-piece, and Fig. 4 is an ornamental corner-piece.

This invention relates to that class of ceilings known as metallic ceilings; and consists in constructing the ceiling in panels, and from black cold-rolled sheet-iron, and in securing the panels in position by means of secreted cleats and caps or ornamental side and corner pieces, so that the means employed for attaching the metal ceiling to the under side of the rafters are completely hidden from view.

Heretofore ceilings of this class have been made from galvanized sheet-iron screwed directly to the girders by screws and similar attachments, which were apparent in the finished panels, and which held the panel rigidly without allowing for expansion or contraction.

The object of my invention is, therefore, to provide a fastening that will admit of the necessary expansion and contraction of the panel, that will be entirely hidden when the ceiling is finished, and that can be readily and cheaply applied.

To the girders A I secure a series of cleats, B, so as to form outlines of the same form as the panel I propose to use. The panels C are formed from cold-rolled black sheet-iron in any suitable manner by turning up the edges to form flanges c. The panel thus formed is attached to the girders by means of a series of devices, b, secured to the cleats, which hold the panel in its position within the space bounded by the cleats B. D D indicate a series of cap-pieces, corresponding to the sides of the panels formed by the cleat. These cap-pieces are placed over the cleats and flange edge c of the panel C, and secured to the cleats by means of screws, or other fastening applied

at each end, so as to cover up the flanges c of the panel. This cap-piece covers the fastening devices b, hiding them entirely from view, and the screws or nails by which the cap-piece itself is secured are in turn hidden by the corner pieces or ornaments E. E represents a series of ornamental corner-pieces, which are used to hide the joining of the several cap-pieces D, and are secured to the cleat, or to the rafters by means of screws or other concealed attachments e. Thus the devices for supporting and sustaining the panel C are hidden by the cap-pieces D, and the fastenings of the cap-piece are in turn hidden by the corner-pieces E, so that none of the fastenings employed in securing the ceiling are visible.

It is evident that the paneling may be of any figure or shape desired, either hexagonal, octagonal, square, or of any form that may be selected, the cleats B being attached to the rafters in such a manner as to give the outline desired, after which the panels, whatever may be their shape, can be secured by the means indicated.

The devices b used to secure the panels in position may be dispensed with, the cap-pieces D performing that function where the panels are not too long and heavy.

Heretofore, in the construction of ceilings of this class, galvanized sheet-iron has been used; but this rendered the ceiling expensive, and in ornamenting and painting the same many difficulties had to be overcome on account of the surface not receiving the paint well. Furthermore, the method of attachment, which has been by screwing the panels to the joists direct, did not leave room for the expansion or contraction of the panel, and was such that the fastenings showed in the completed ceiling.

By making my panels of cold-rolled black sheet-iron, I obtain a surface which receives paint readily, and can be ornamented in any desired manner, and by my method of attaching and securing the panels in place I save much time in putting up the ceiling, and am also enabled to paint, enamel, or otherwise ornament the ceiling before placing it in position.

The difference in cost in favor of the present invention is very great, as has been tested by actual experiment. For instance, in a ceiling two hundred and forty feet by thirty feet, the cost of the galvanized sheet-iron by the old method of putting it up would be some three thousand five hundred dollars, while by my method a ceiling equally good can be put up at a cost of some two thousand dollars.

Having thus described my invention, I claim—

1. In combination with the panels C, the cap-

pieces D, and corner-pieces E, substantially as and for the purpose specified.

2. In combination with the panels C and concealed fastenings b, the cap-pieces D and corner-pieces E, substantially as and for the purpose specified.

In testimony whereof I, the said HENRY ADLER, have hereunto set my hand.

HENRY ADLER.

Witnesses:

T. B. KERR,

JAMES I. KAY.