(No Model.) 2 Sheets—Sheet 1.

F. MESKER.

SHEET METAL CEILING, WALL, OR PANEL.

No. 361,438. Patented Apr. 19, 1887.

Fig. 1.

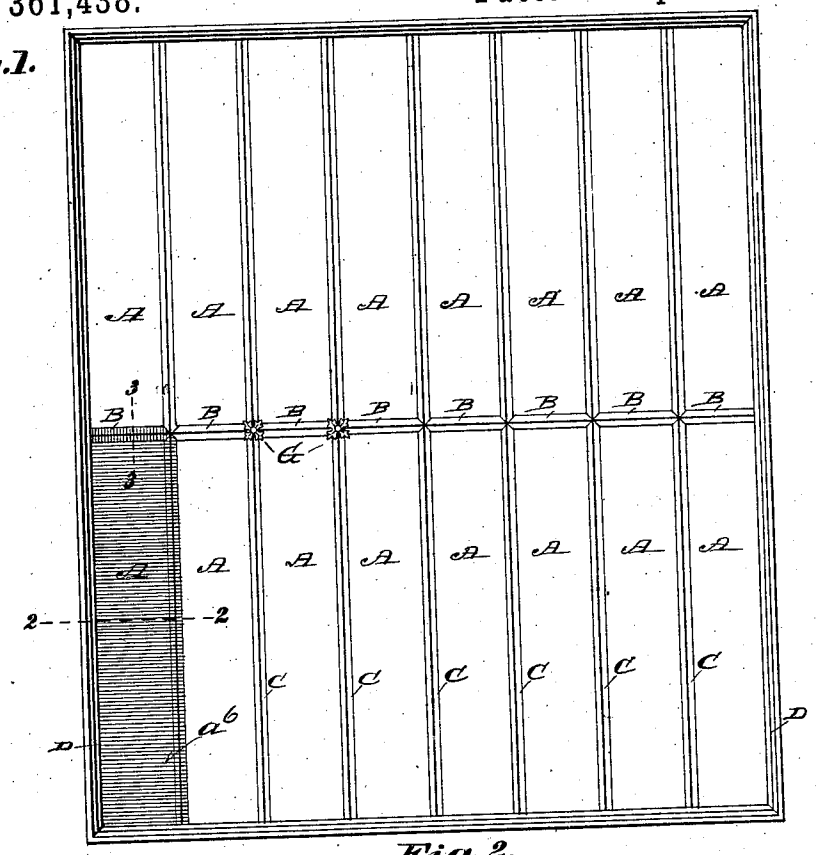


Fig. 2.

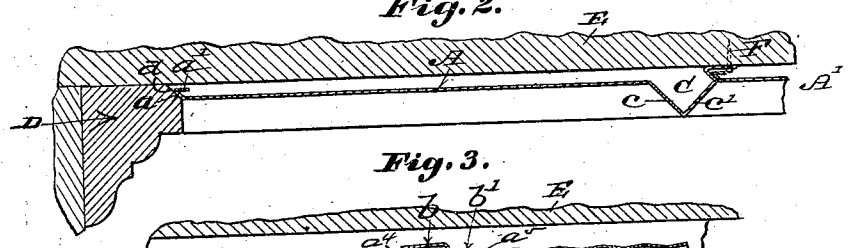


Fig. 3.

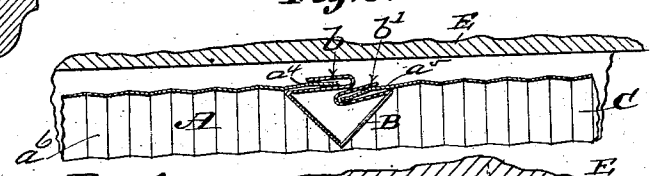
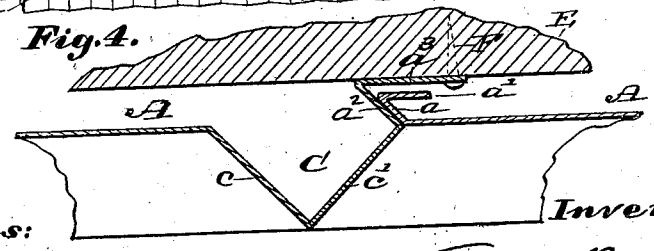


Fig. 4.



Witnesses:
W. B. Anderson.
J. W. Hoke.

Inventor:
Frank Mesker
By C. P. Moody Atty

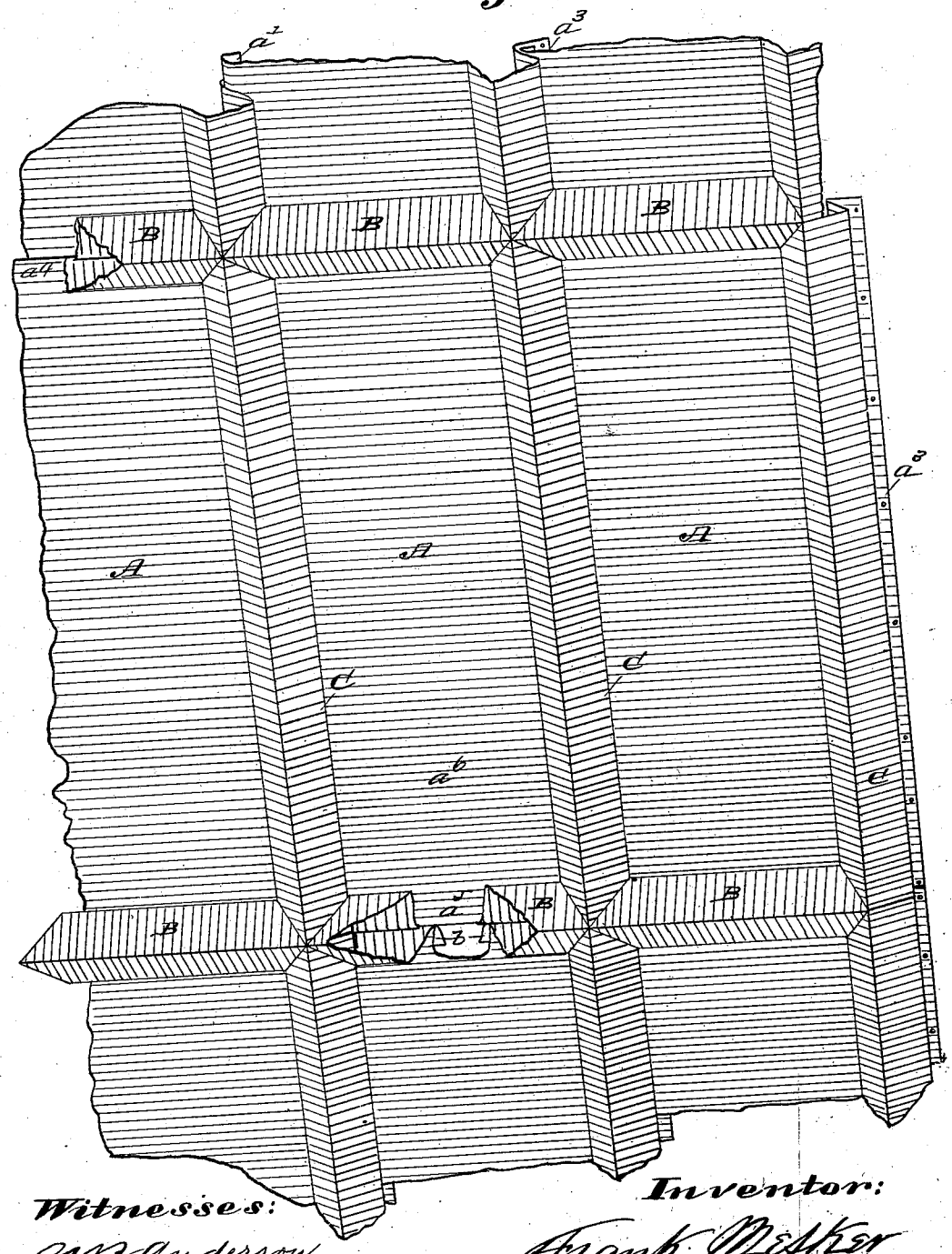
(No Model.) 2 Sheets—Sheet 2.

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Fig. 5.



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Inventor:
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by C. O. Moody atty

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UNITED STATES PATENT OFFICE.

FRANK MESKER, OF ST. LOUIS, MISSOURI, ASSIGNOR TO MESKER & BRO., OF SAME PLACE.

SHEET-METAL CEILING, WALL, OR PANEL.

SPECIFICATION forming part of Letters Patent No. 361,438, dated April 19, 1887.

Application filed October 18, 1886. Serial No. 216,546. (No model.)

To all whom it may concern:

Be it known that I, FRANK MESKER, of St. Louis, Missouri, have made a new and useful Improvement in Sheet-Metal Ceilings, Walls, or Panels, of which the following is a full, clear, and exact description.

In the annexed drawings, making part of this specification, Figure 1 is a view, from beneath, of a ceiling in which the improvement in question is embodied. One only of the panels or sheets is shown corrugated. Fig. 2 is a vertical section, upon an enlarged scale, on the line 2 2 of Fig. 1. Fig. 3 is a vertical section, enlarged, on the line 3 3 of Fig. 1. Fig. 4 is a vertical section, upon a still larger scale, showing a portion of Fig. 2; and Fig. 5 is a view in perspective, from beneath, of a portion of the improved ceiling, portions being broken away to exhibit the interior construction.

The same letters of reference denote the same parts.

The ceiling is composed substantially of the sheets A and the parts styled the "cross-bars," B. At one of its side edges the sheet is inclined upward to form a flange, *a*, Figs. 2, 4, and the flange is preferably extended, at *a'*, backward above the main portion of the sheet, substantially as is shown. At its opposite side edge the sheet is turned backward upon itself, and also upward, substantially as is shown at a^2, and from the uppermost point of the part a^2 the sheet is extended horizontally outward, substantially as is shown at a^3. The sheet is also preferably shaped to form what may be styled the "longitudinal bar," C—that is, the sheet is bent downward at *c* and then upward at *c'*—and thus a rib or bar of any desired depth may be introduced into the sheet in the immediate vicinity of the fold a^2 a^3; and while I desire not to be limited to the precise form in cross-section shown of the bar C, I consider it a desirable one as well for its appearance as on account of its being a desirable mode of strengthening that edge of the sheet and of supporting the adjoining sheet, the several sheets forming the ceiling being combined as follows: Beginning at the side of the room, the flange *a* of the first sheet is made to rest upon a suitable support, such as the molding D, Figs. 1, 2. For this purpose the molding is cut away at *d* to receive the edge of the sheet, substantially as shown in Fig. 2. I desire not to be confined to the particular manner shown of folding the sheet to form the flange *a*, provided the construction is such as to permit of that part of the sheet to be received into a supporting-fold, such as the fold a^2 a^3 of the adjoining sheet, as shown in Figs. 2, 4—that is, the fold a^2 a^3 must be a re-entering fold, and the edge of the adjoining sheet must be adapted to enter and be held within the fold a^2 a^3. The improvement therefore can, in a measure, be carried out by entirely omitting the flange *a* and by correspondingly shaping the fold a^2 a^3 to admit and support the unflanged adjoining sheet. I prefer, however, the particular shape shown in all respects, as thereby the improvement is best carried out. The outer edge of the sheet A, Fig. 2, is secured to the joist E, or other fixture of the floor to which this ceiling is being applied, by means of nails F or other equivalent fastenings passed through the part a^3 upward into the joist, substantially as is shown in Fig. 2. The edge of the adjoining sheet, A', Fig. 2, is then passed into the fold a^2 a^3, so as to rest therein, and so as to conceal the nails F, and then the outer edge of that sheet A' in turn is made to support the rear edge of the next sheet, and so on throughout the width of the ceiling. The cross-bars B are used at the ends of the sheets A. Their principal function is to complete the design of and give a finish to the ceiling at that point; but they also serve a useful purpose in stiffening the sheets at their ends. To this end that portion of the cross-bar which appears to view may be made to conform to the appearance of the bar C; hence in this respect the cross-bar may be of various shapes. It is attached in position by means of its folds *b b'*, into which the ends a^4 a^5, respectively, of the adjoining sheets are respectively received, substantially as is shown in Fig. 3. The cross-bar extends across the width of the sheet, and at its ends abuts upon the longitudinal bar C. A rosette, G, Fig. 1, or other ornamental piece, may be used to cover the bars B C where they come together, and it may be secured in place by any suitable fastening. A plain panel of sheet metal is liable to sag or to warp out of shape, and to prevent this, as well as to fur-

ther improve the design of the ceiling, a corrugation, a^6, Figs. 1, 3, 5, is introduced into the sheets A. The corrugation is crosswise in the sheet, and it is better to extend it throughout the width of the original sheet, so that when the bar C is subsequently formed in the sheet the corrugation extends into the bar, substantially as is indicated in Fig. 5.

Although the corrugation a^6 is crosswise in the sheet, I desire not to be restricted thereto, as it may extend longitudinally in the sheet. It is better, however, to extend the corrugation in the manner shown. It is also preferable to have the rib C formed in the sheet as one part thereof; but, if desired, the rib may be in the form of a separate piece and be attached to the sheet A.

I desire not to be limited to sheet metal in carrying out the improvement. Paper, for instance, can be used in place of metal.

I claim—

The combination of the sheets A A A and the cross-bars B, one sheet A having the fold a^2 a^3, and receiving the edge of the adjoining sheet A, and being secured to the frame of the structure, and said bar B having the folds b b', substantially as described.

FRANK MESKER.

Witnesses:
C. D. MOODY,
B. P. REX.