P. EBNER.

METAL CEILING CONSTRUCTION.

APPLICATION FILED APR. 26, 1909.

951,307.

Patented Mar. 8, 1910.

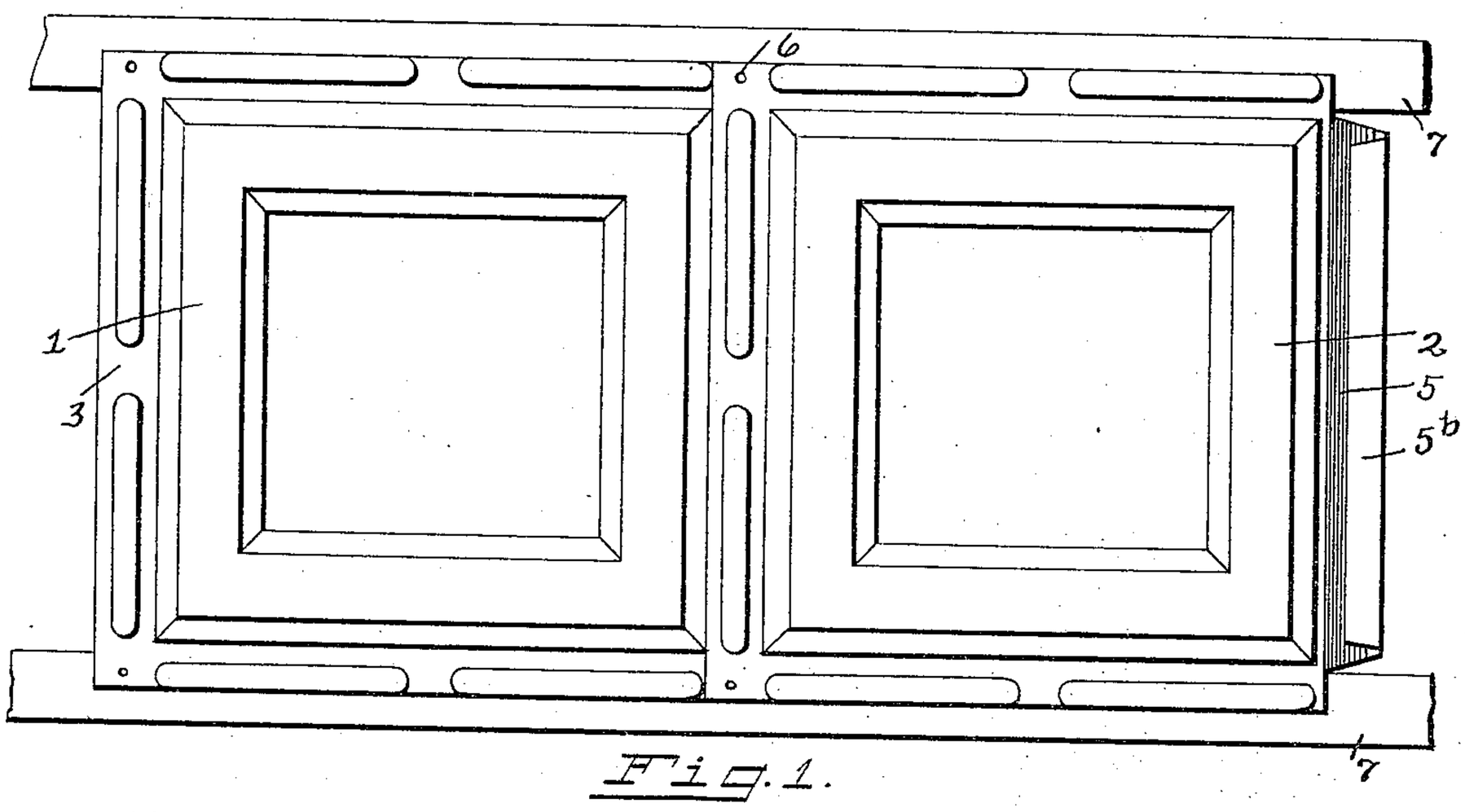

Fig. 1.

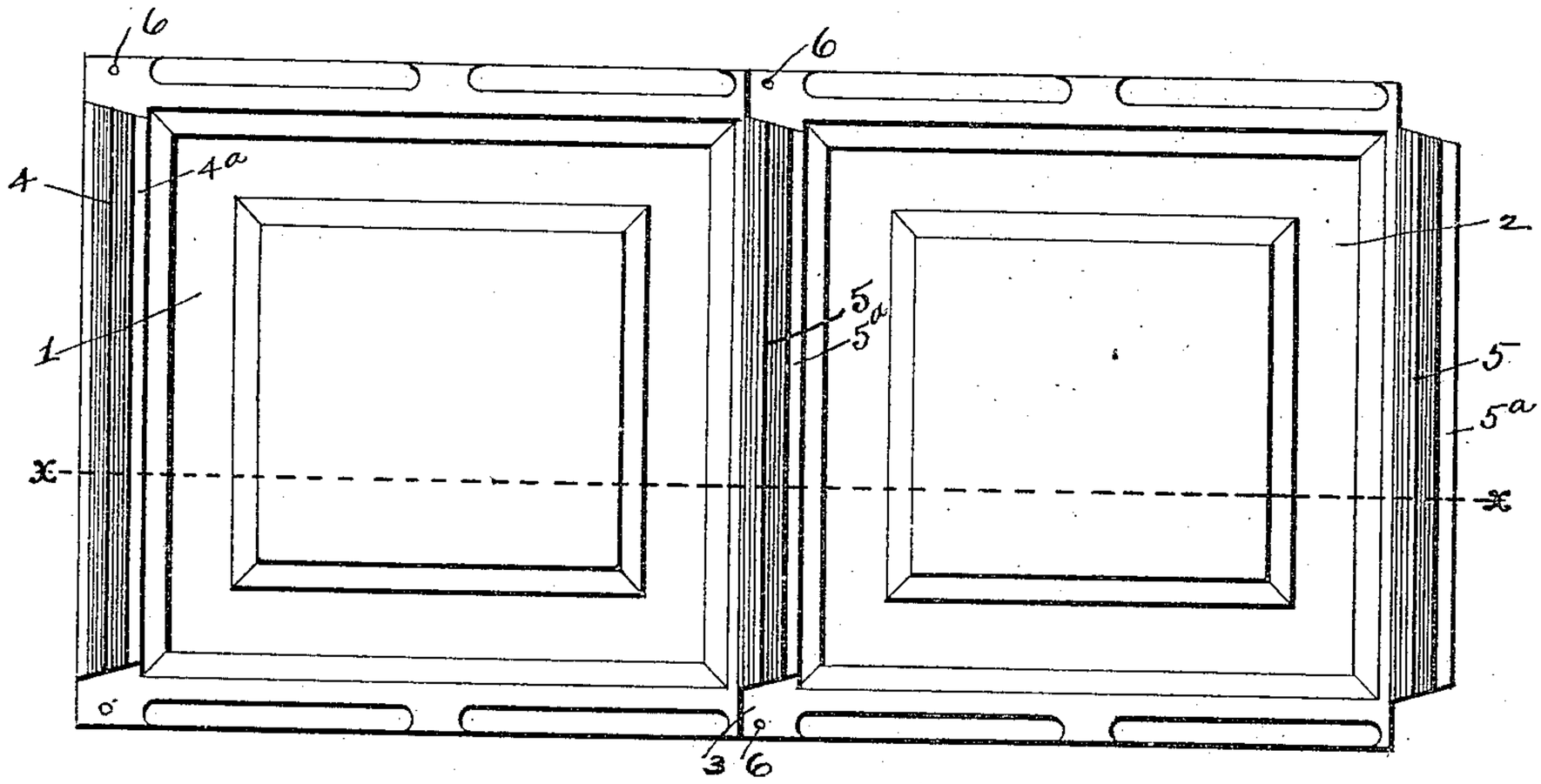

Fig. 2.

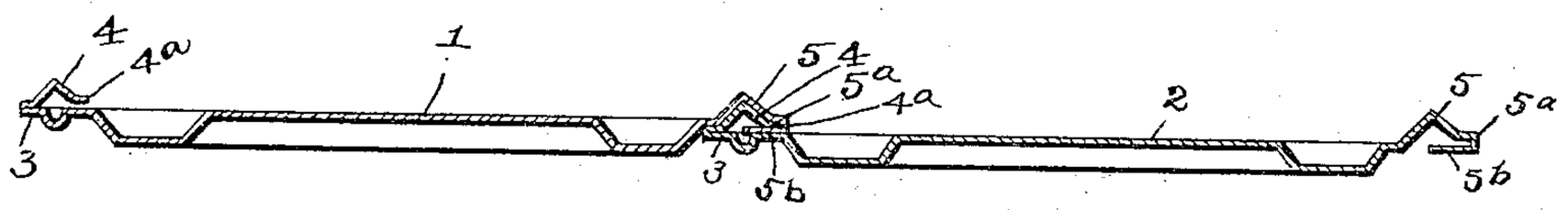

Fig. 3.

Witnesses

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UNITED STATES PATENT OFFICE.

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METAL-CEILING CONSTRUCTION.

951,307. Specification of Letters Patent. Patented Mar. 8, 1910.

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To all whom it may concern:

Be it known that I, PETER EBNER, a citizen of the United States, residing at Columbus, in the county of Franklin and State of Ohio, have invented certain new and useful Improvements in Metal-Ceiling Construction, of which the following is a specification.

My invention relates to the improvement of metal ceilings of that class which comprise separately formed panels stamped from sheet metal, and the objects of my invention are to provide sheet metal ceiling panels of this class having improved means for forming what is known as lock joint connections between the panels; to so construct my improved panel connecting members as to insure a firm and rigid connection of the panels, and to otherwise produce a strong, durable and fire-proof ceiling. These objects I accomplish in the manner illustrated in the accompanying drawing, in which:

Figure 1 is a face view of two united ceiling panels, Fig. 2 is a similar view of the opposite sides of said panels with the furring strips removed, and, Fig. 3 is a sectional view on line *x*—*x* of Fig. 2.

Similar numerals refer to similar parts throughout the several views.

In illustrating my improved ceiling panel construction, I have shown but two panels, these being deemed sufficient to properly disclose the invention and it will be understood that these panels which are indicated respectively at 1 and 2, may be suitably pressed or ornamented.

In the construction of each of the panels, I form opposing substantially flat marginal portions, one of said marginal portions which is indicated at 3, being bent upward and inward upon itself, thence upward and again downward and inward to form throughout the greater portion of the length of said marginal portion, an angular or inverted V-shaped projection 4, the inner terminal edge of which projects horizontally as indicated at 4^a. The opposite marginal portion of each of the panels, is formed throughout the greater portion of its length, with an inverted V-shaped projection 5 somewhat larger than the projection 4, the terminal portion of said projection or keeper 5 being first provided with a short horizontal extension 5^a and thence turned or bent horizontally beneath the outer half of said V-shaped portion as shown at 5^b.

It will be observed that the members 4 and 5 do not extend the full width of the panel, thus leaving comparatively flat marginal portions on those sides of the panel which are at right angles with the first described marginal portions. A connection of two of the panels is formed, as indicated, by sliding the V-shaped projection 4 of one panel horizontally within the V-shaped projection 5 of the adjacent panel, the horizontal tongue-like extension 5^b sliding, as shown, beneath the terminal portion 4^a of the member 4 while said extension 4^a fits and slides within the extension 5^b of the member 5. The members 4 and 5 being made to fit closely one within the other and the provision of the inwardly extending terminal member 5^b serve not only to form a strong and effective joint between the two panels, but close the lateral entrance to the member 4, thereby insuring a water and fire-proof connection which will have sufficient rigidity to obviate the necessity of the employment of crossed frame pieces or furring strips above and in the direction of the lengths of said engaging marginal portions.

As shown in the drawing, those corners of each of the panels which are left uncovered by the shortening of the members 4 and 5, are provided with nail holes 6, through which nails may be driven into the longitudinal furring strips 7 against which the comparatively flat marginal portions of the panels bear. It will also be understood that these nails will pass through the overlapping corner portions of the panels of the next longitudinal row not herein shown.

From the construction shown and described, it will be understood that a comparatively simple yet reliable form of lock joint is provided for metal ceiling panels, which will impart great strength to the ceiling construction and resist the entrance of water or fire.

What I claim, is:

1. In a metal ceiling construction, the combination of a plurality of panels, the edge of one of said panels being provided with a V-shaped rib which terminates in a free edge and the abutting edge of the adjacent panel being provided with a slightly larger V-shaped rib which fits over the first named V-shaped rib, said larger V-shaped

rib having a terminal extension which is bent downwardly and inwardly about said free edge.

2. In a metal ceiling construction, a sheet metal panel having one of its marginal portions provided with an upper side extension of inverted V-form, said extension having a horizontal terminal portion above the body of the panel and the opposite marginal portion of said panel having a somewhat larger V-shaped extension on its upper side, said last named V-shaped extension being provided with a horizontally extending outer portion and an inwardly extending horizontal terminal member.

In testimony whereof I affix my signature in presence of two witnesses.

PETER EBNER.

Witnesses:
C. C. SHEPHERD,
L. CARL STOUGHTON.