(No Model.) 2 Sheets—Sheet 1.

C. THUENER.

METALLIC CEILING.

No. 376,926. Patented Jan. 24, 1888.

Fig. I.

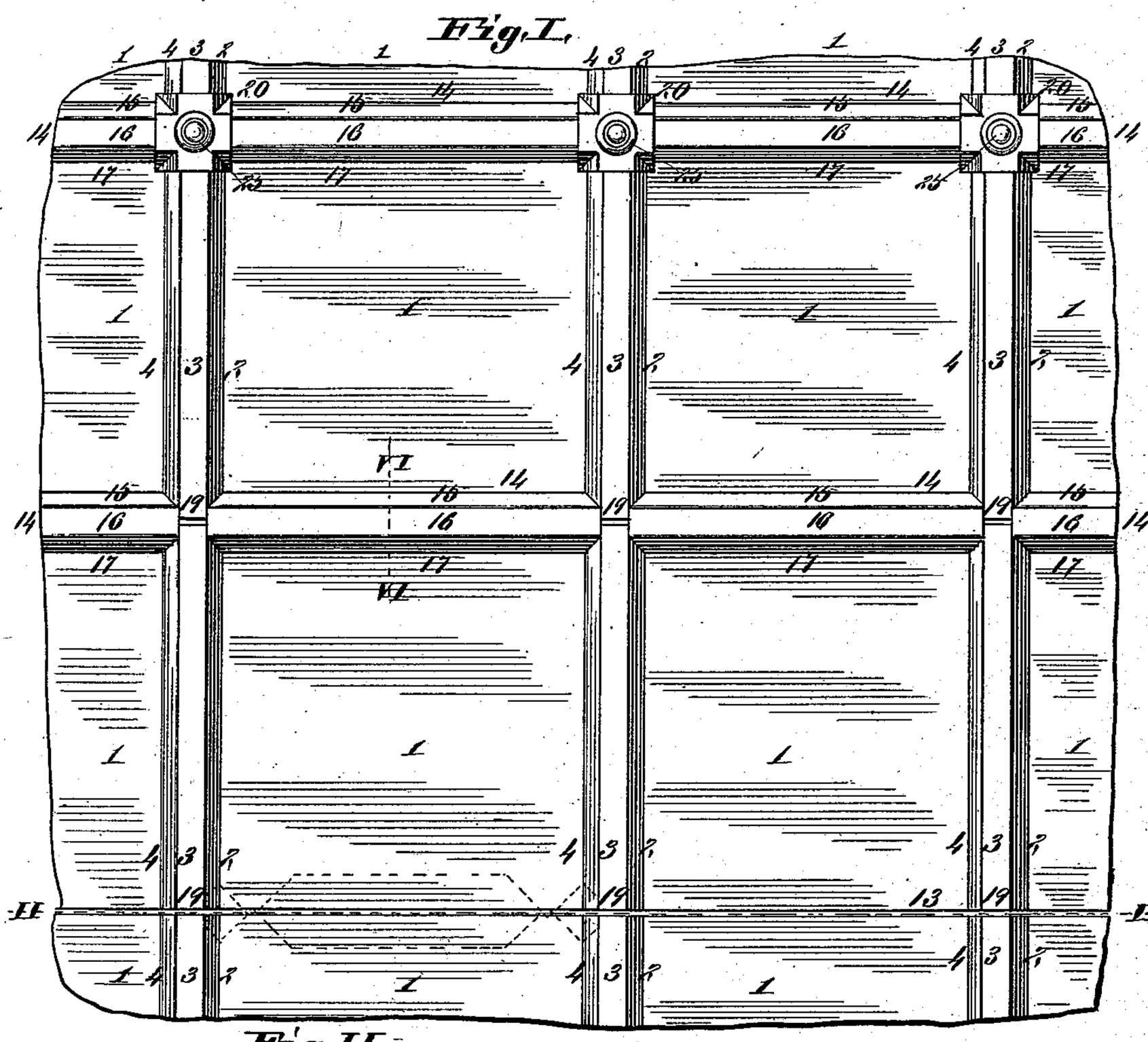


Fig. II.

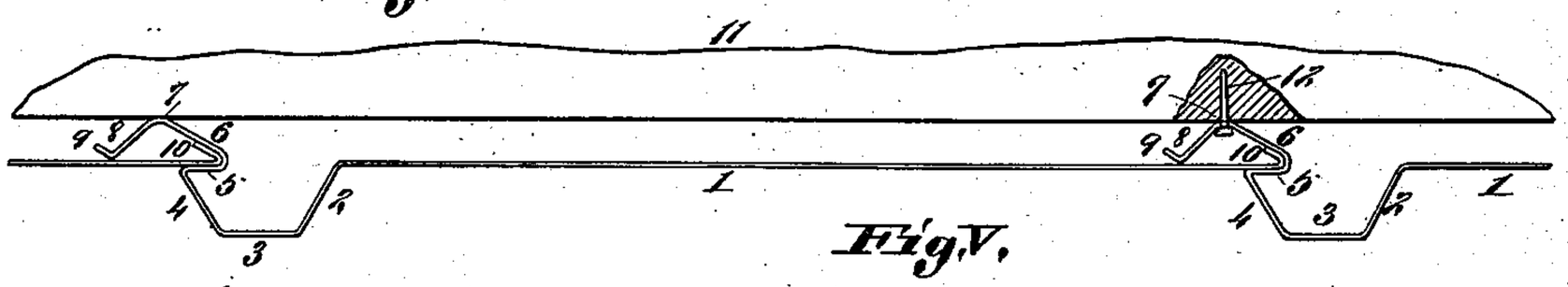


Fig. V.

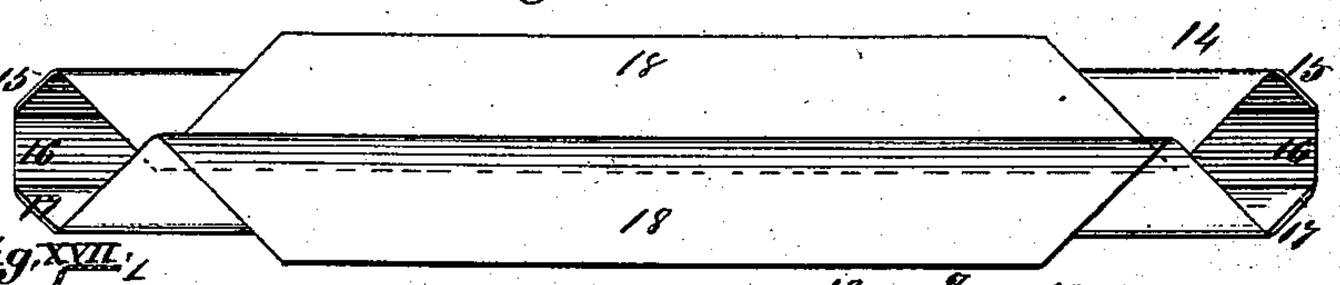


Fig. VI.

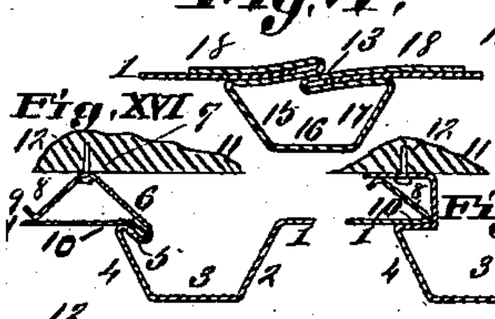


Fig. XVI.

Fig. XVII.

Fig. III.

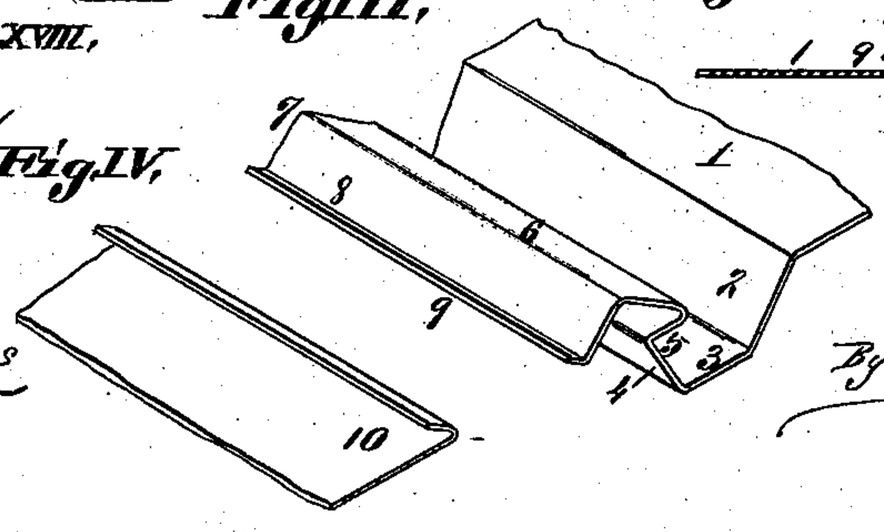


Fig. XVIII.

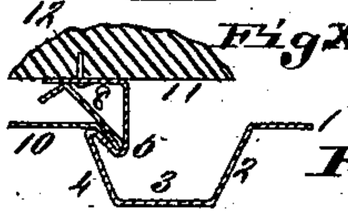
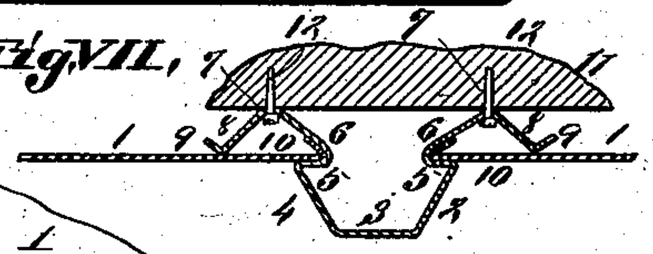


Fig. IV.

Fig. VII.



Attest:
Charles Pickles
E. Arthur

Inventor:
Chas Thuener.
By Knight Bros.
atty's.

N. PETERS, Photo-Lithographer, Washington, D. C.

(No Model.) 2 Sheets—Sheet 2.

C. THUENER.

METALLIC CEILING.

No. 376,926. Patented Jan. 24, 1888.

Fig. VIII.

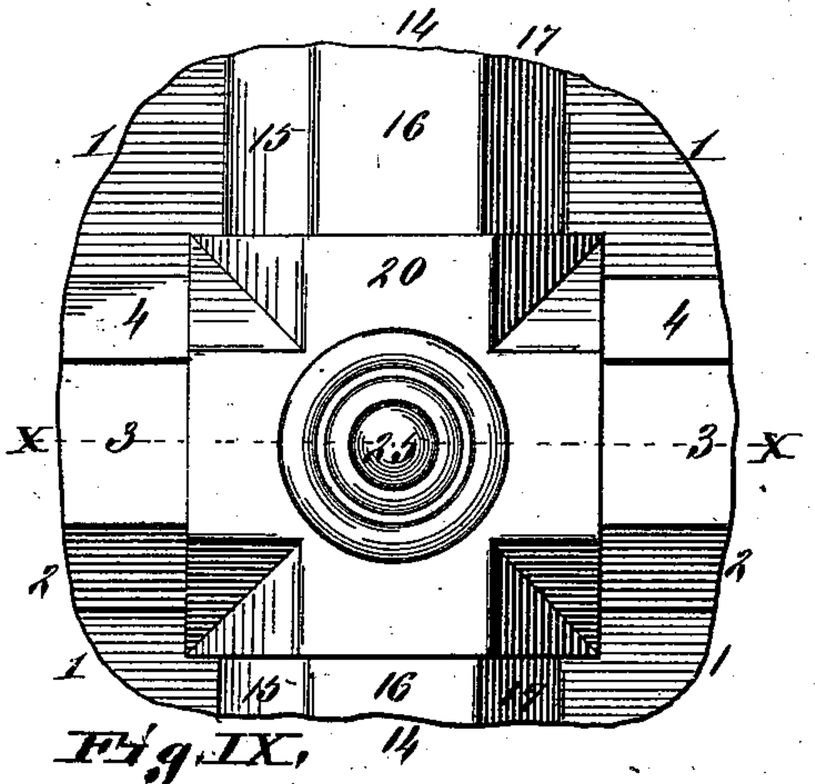


Fig. IX.

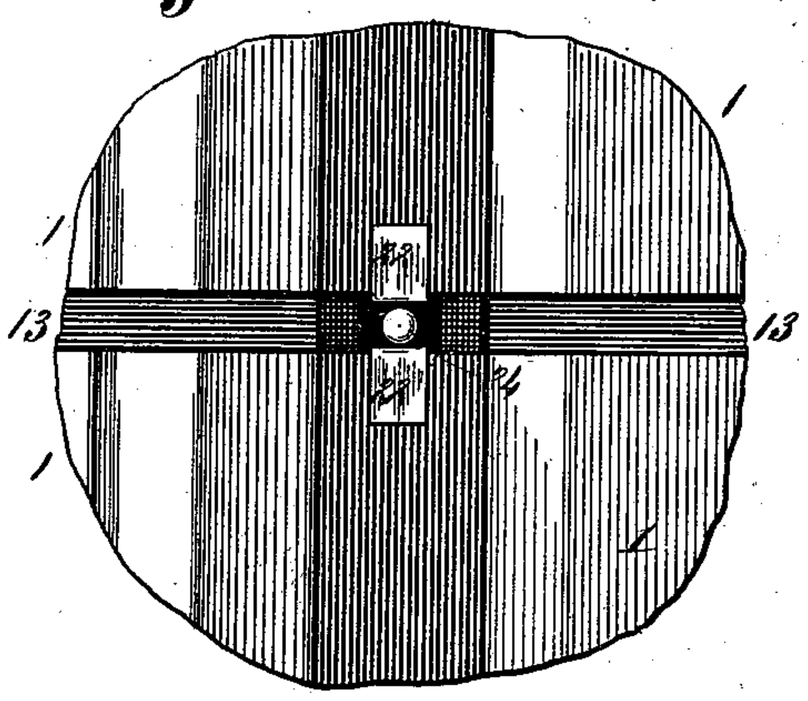


Fig. X.

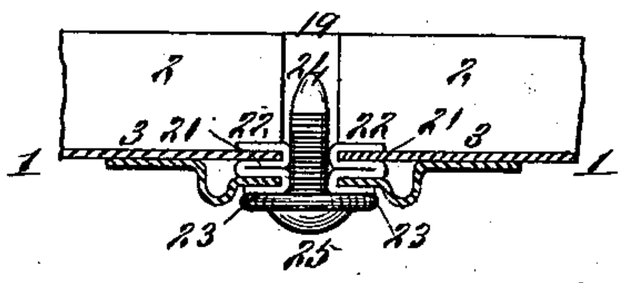


Fig. XI.

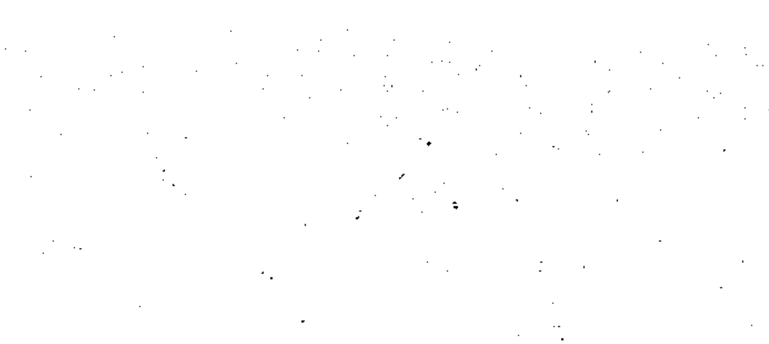


Fig. XII.

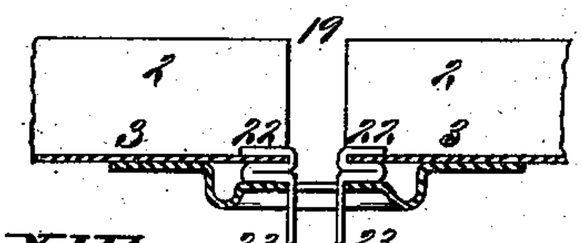


Fig. XIII.

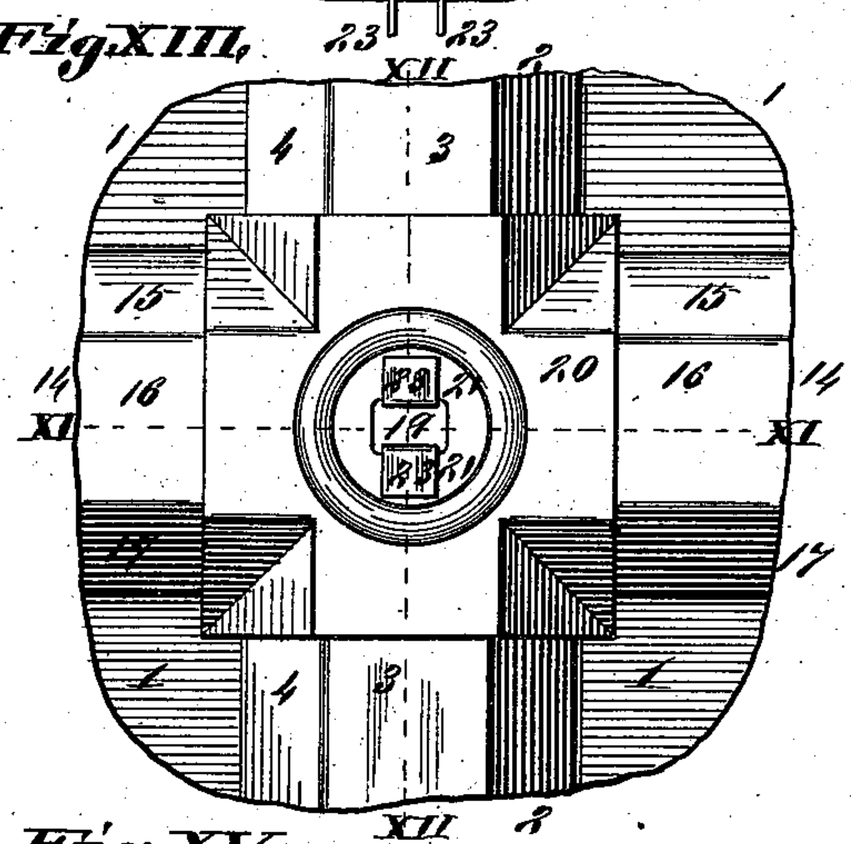
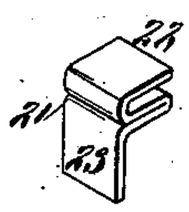
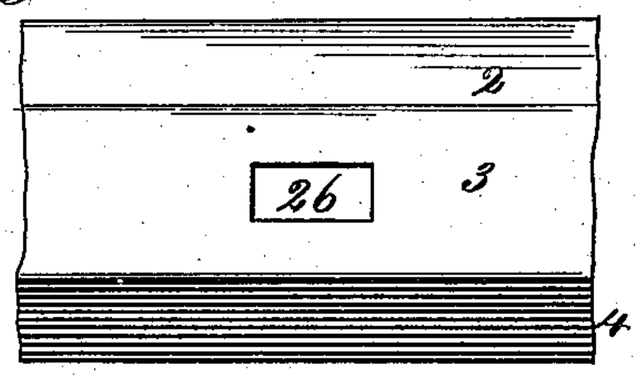


Fig. XV.

Fig. XIV.





Attest:
Charles Pickles,
E. Arthur.

Inventor:
Chas Thuener
By Knight Bro's.
Att'ys.

N. PETERS. Photo-Lithographer, Washington, D. C.

UNITED STATES PATENT OFFICE.

CHARLES THUENER, OF ST. LOUIS, MISSOURI.

METALLIC CEILING.

SPECIFICATION forming part of Letters Patent No. 376,926, dated January 24, 1888.

Application filed October 20, 1887. Serial No. 252,909. (No model.)

To all whom it may concern:

Be it known that I, CHARLES THUENER, of the city of St. Louis, in the State of Missouri, have invented a certain new and useful Improvement in Metal Ceilings, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification, and in which—

Figure I is a view showing a number of sections of my improved ceiling. Fig. II is a section taken on line II II, Fig. I. Fig. III is a detail perspective view showing part of one edge of one of the sections or sheets. Fig. IV is a similar view of the adjacent edge of the adjoining section or sheet. Fig. V is an enlarged inner view of one of the cross-strips. Fig. VI is a section of same, taken on line VI VI, Fig. I. Fig. VII shows a slight modification of the manner of connecting the adjacent edges of the sheets or sections. Fig. VIII is a view of the ceiling, showing a rosette applied. Fig. IX is a view showing the upper ends of the rosette-fastening. Fig. X is a section taken on line X X, Fig. VIII. Fig. XIII is a view of the rosette with the screw omitted. Figs. XI and XII are respectively sections taken on lines XI XI and XII XII, Fig. XIII. Fig. XIV is a perspective view of the rosette-fastening. Fig. XV is a view showing an opening for attachment of an ornament. Figs. XVI, XVII, and XVIII are detail sections showing modifications.

My invention relates to an improved metallic ceiling; and it consists in features of novelty, hereinafter fully described, and pointed out in the claims.

Referring to the drawings, 1 are plates of metal, which are shown of square form, but which may be of any preferred shape which is bounded by straight sides or edges.

At one side of each plate 1 is a rib, which may be made of any preferred shape. As shown, it consists of three sides, 2, 3, and 4. The edge of 4 is turned inward in a flange, 5, which is curved outward and extends in a flange, 6, and then downward at 7, and extends in a flange, 8, whose outer edge may be turned upward and outward in a flange, 9. The opposite edge, 10, of the plate may be unbent or turned up in a flange, as shown in Figs. II, VII, and XI. The sheet is made fast to the joist 11 by nails 12, which pass through the angle 7. (See Figs. II, VII, and XI.) When a plate has been fastened in position, the edge 10 of the next plate is placed on the flange 5, which forms a ledge, and as the other edge of the plate is lifted to the joist the plate is brought in contact with the edge of the flange 8, which bears on the plate and holds the edge 10 down hard upon the ledge 5. The flange 8 forms a spring, which bears upon the plate with sufficient pressure to insure a tight joint between the edge 10 and flange 5. It will be seen that one edge of each plate is nailed to the joist and the other edge supported on the ledge 5 of the next plate, and thus a line of plates may extend across the ceiling. Another line being made beside it would leave an open crack, 13, (see Fig. I,) where the edges meet. To close this open crack and form a rib on the ceiling similar to the rib 2 3 4 of the plates 1, I bend plates 14, of metal, into the form shown in Figs. V and VI. These plates have parts 15, 16, and 17, similar, respectively, to the parts 2, 3, and 4 of the plates 1, and have lips 18, which are made to tightly clasp the edges of the plates 1 at 13. (See Fig. VI.) The ends of the plates 14 are made to fit the sides 2 4 of the ribs of plate 1. At the intersections of the ribs will be openings 19, as seen in Figs. I, X, XII, and XIII. To make a finish at these points, I use rosettes 20, which I secure in place by means of clips 21. These clips are made with lips 22, that engage the ends of the parts 3 of the ribs 2 3 4. The clips have parts 23, adapted to be clinched against the under sides of the rosettes, as seen in Fig. XIII. In order to cover up the clinched ends 23, the stem 24 of a knob, 25, may be driven in between the clips 20. (See Figs. VIII, IX, and X.) The stem 23 should be roughened, to hold it tight when inserted.

Where it is desired to place rosettes upon the ribs or other parts of the ceiling, they may be held to the same by clips 21 in the manner before described, the clips being inserted in an aperture, 26, which is shown in one of the ribs in Fig. XV.

In the modification shown in Fig. XVI the ledge 5 is not made horizontal, but is inclined,

as shown, and the edge 10 of the plate 1 turned down, so as to take a firmer hold of the ledge.

In the modification shown in Fig. XVII, in place of forming the spring-flange 8 on the edge of the plate 1 which is nailed to the joist, it is made upon the edge 10 of the plate, and serves to hold the edge 10 firmly down on the ledge 5 in the same manner as if upon the other edge of the plate.

In the modification shown in Fig. XVIII the two modifications shown in Figs. XVI and XVII are combined, as will be clearly seen without further description.

In Fig. VII is shown the means for the support of the edges 10 of two plates 1 where they are in near proximity. This support in this case consists of a rib, 2 3 4, with a ledge, 5, on each side and flanges 6 and 8, forming means for attachment to the joist, and the spring for holding the edge 10 tight to the ledge 5, as before explained.

I claim as my invention—

1. A metal ceiling-plate having one edge shaped to form a rib and adapted for nailing to a joist, and having a ledge thereon over the rib for the support of the opposite edge, 10, of the next plate, and a spring-flange projecting beyond the ledge and adapted to press the edge 10 upon the ledge, substantially as and for the purpose set forth.

2. The combination of the plates 1 and 14, a rosette, 20, and clips 21, adapted to engage the plates and the rosette, substantially as set forth.

3. The combination of the plates 1 and 14, a rosette, 20, a clip, 21, and a knob, 25, all constructed and arranged substantially as set forth.

4. In a metallic ceiling, a plate having the bends 2, 3, 4, 6, 7, 8, and 9 on one edge, and a second plate having an edge, 10, substantially as set forth.

5. In a metallic ceiling, in combination with plates and rosettes, the fastenings 21, bent substantially as shown and described.

CHAS. THUENER.

In presence of—
GEO. H. KNIGHT,
JOS. WAHLE.