W. H. KLAUER.

METAL CEILING.

APPLICATION FILED SEPT. 23, 1916. RENEWED JULY 11, 1921.

1,400,882. Patented Dec. 20, 1921.

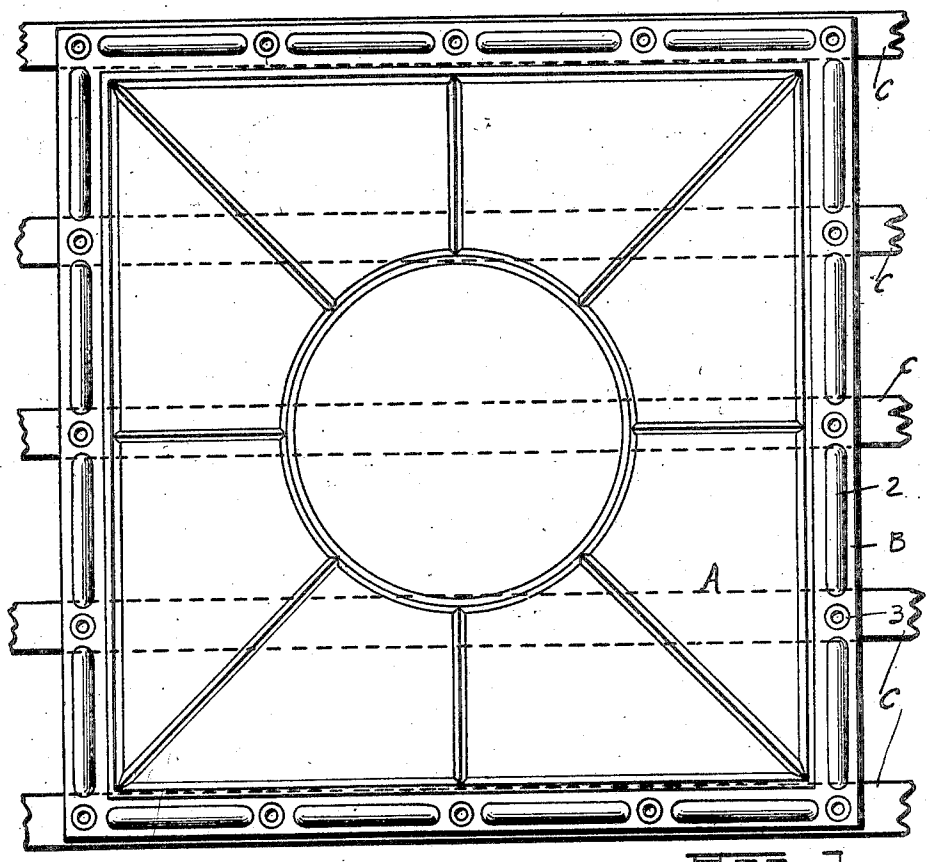


FIG. 1.

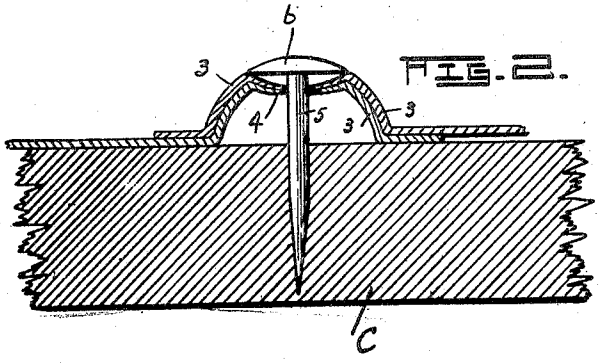


FIG. 2.

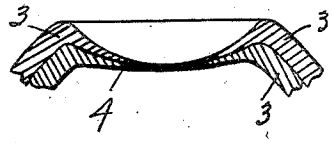


FIG. 3.

INVENTOR.

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METAL CEILING.

1,400,882. Specification of Letters Patent. Patented Dec. 20, 1921.

Application filed September 23, 1916, Serial No. 121,805. Renewed July 11, 1921. Serial No. 483,944.

To all whom it may concern:

Be it known that I, WILLIAM H. KLAUER, a citizen of the United States, residing at Dubuque, in the county of Dubuque and State of Iowa, have invented certain new and useful Improvements in Metal Ceilings, of which the following is a specification.

My invention relates to metal ceiling.

The invention has special reference to detailed formation of the sheets from which ceilings are made, looking to betterment and reduction in cost of production and use.

My invention consists in the formation of a metal blank into a ceiling section provided with edges for overlapping, specially formed for matching adjacent sections and provided with rosetted portions adapted not only to receive nails and house the heads thereof to present a neat appearance but particularly to present a considerable number of places for nailing but nonperforate that nails need not be applied at each rosette.

The salient feature of my invention lies in the formation of the rosettes, viz., the forming a seat for the nail heads and the thinning of the metal in the seat depression that a nail will readily penetrate it with a slight tap of a hammer.

Referring to the drawings:

Figure 1 is a plan view of a metal sheet.

Fig. 2 is a sectional view, sections at the joining point and the attachment strip showing the nail applied to effect the fastening.

Fig. 3 is a section of overlying rosettes showing the thinning of the metal at the nail seat point.

I am aware that metal ceiling is disclosed in the patented art and also is in practical use employing rosettes at and the centers of which perforations are made but in the use of such ceiling sections it is necessary, for the sake of appearance at least, that nails be driven at each rosette, and it is to avoid this necessity that I have formed my rosettes nonperforate. Also I am aware that ceiling sections have been used employing nonperforate rosettes of normal thickness of the metal, within and through which nails are to be driven, but it is very difficult for a workman, particularly in the awkward position in which he is required to work in applying the sheathing, to drive the nails through the thick metal. Besides there is a considerable loss of time.

Referring to the drawings:

C are strips intended, in a diagrammatic way, to indicate the ceiling members of a building forming the foundation for attachment of the ceiling sections. A is a ceiling section, B is a margin or edge of the ceiling section designed to overlie and match similar edges of similar sections. 2 are ribs serviceable to stiffen edge members B. 3 are rosettes (best shown in Fig. 3), the same being formed by stamping to gradually thin the metal from the interior periphery of the rosette to its center—the center portion being reduced to substantially the thickness of ordinary one ply paper,—so that it may be readily penetrated with the ordinary ceiling nail.

5 is a ceiling nail, the head 6 of which may be specially formed with a double convex head as shown, that a rounded face may be presented to conform with the general arc of the rosette that the rosette as a whole, including the nail head, shall present a rounded appearance and that the base of the head may seat readily in central depression in the rosette.

The advantages and saving in the use of my improved ceiling structure is so obvious that detailed mention thereof is omitted.

The form and shape of the rosette or the general design of the sheathing section is immaterial, as the form and design may be changed without departing from the spirit and purpose of my invention, which is, the forming of ceiling sheets with nail entrance points or seats thinned to substantially the thickness of one ply paper and a proper housing of the seat to give direction to the nail while it is driven and to prevent the lateral breaking away of the metal as the nail is driven.

What I claim is:

1. As a new and improved article of manufacture, a metallic ceiling section comprising a sheet of metal having a rosette protruding therefrom, said rosette being dished at its attaching point to afford a centering point for the attaching nail, and the metal at said point being thinned to permit the piercing thereof by the driving force of a nail.

2. In a ceiling structure, a metallic ceiling section comprising a sheet of metal having a rosette protruding therefrom, said rosette being dished at its attaching point to afford a centering point for the attaching nail, and the metal at said point being thinned to permit the piercing thereof by

the driving force of a nail, a backing against which the ceiling section abuts and away from which the rosette protrudes, and a nail driven through the thinned section of the rosette and into the backing.

3. In a ceiling structure, a metallic ceiling section comprising a sheet of metal having a rosette protruding therefrom, said rosette being dished at its attaching point to afford a centering point for the attaching nail, and the metal at said point being thinned to permit the piercing thereof by the driving force of a nail, a backing against which the ceiling section abuts and away from which the rosette protrudes, and a nail driven through the thinned section of the rosette and into the backing, the nail having a head configured to close the recessed portion and conformable to the curvature of the body portion of the rosette.

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

WILLIAM H. KLAUER.

Witnesses:
R. W. SIMPSON,
MYRTLE LANDER.