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P. D. DAIL

2,898,640

CEILING CONSTRUCTION

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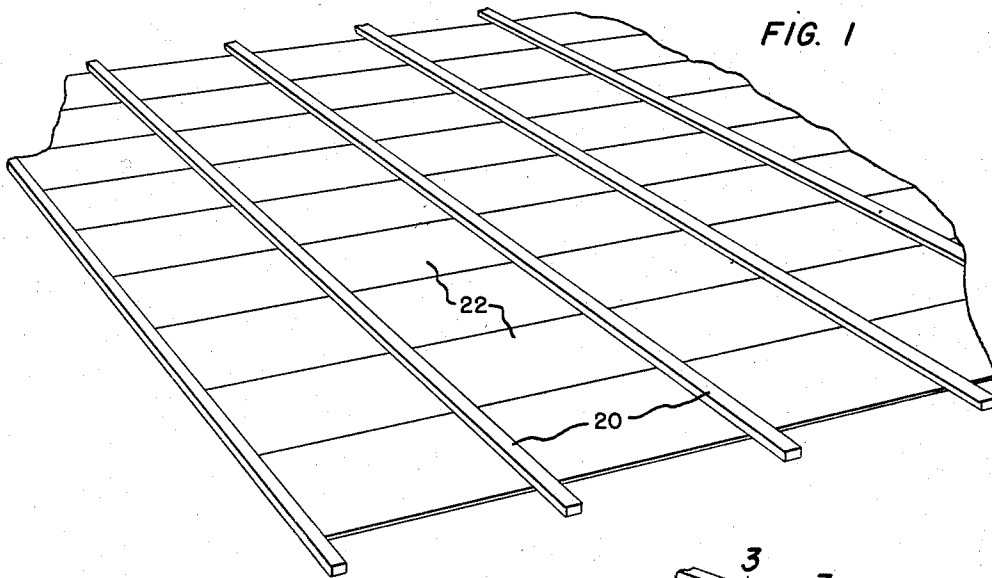


FIG. 2

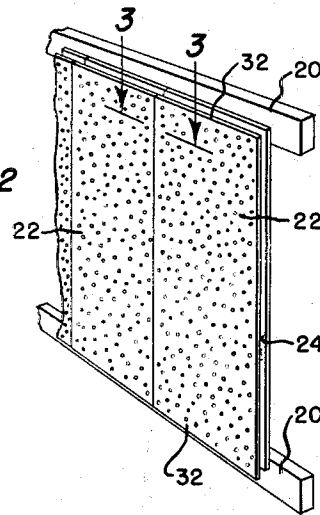
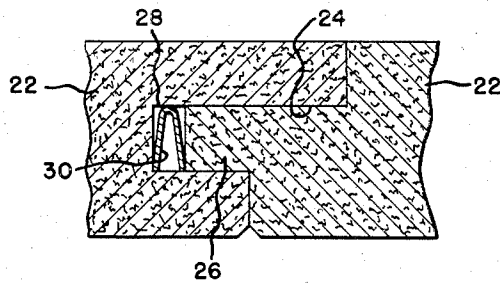


FIG. 3



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2 Claims. (Cl. 20—4)

The present invention relates to ceiling construction, particularly to panel type ceiling construction, as for example, ceilings formed of panels of sound absorbing material.

These panels are secured to furring strips and this furring is secured to the ceiling of a building. These furring strips are parallelly arranged and laterally (horizontally) spaced from one another. Heretofore, not only the opposite ends of a panel were each secured to a furring strip, but also an intermediate parallelly arranged furring strip was necessary between the ends of each panel.

The standard type of sound absorbing panel is provided with mortises and tenons along the edges thereof, the mortises being grooved along two of the edges, which are disposed at right angles to one another, and the tenons are provided and extend from the other two edges. The confronting edges, lying at right angles to the furring strips, of next adjacent panels, include a mortise and a tenon. I have found that by providing a reinforcing strip in each of these mortises, which lie at right angles to the furring strips, the furring strips, intermediate those at the ends of the panels, can be eliminated.

Preferably the reinforcing strip is made of metal shaped to form a V, with the metal strip so disposed that the arms thereof lie on opposite sides of a vertical plane intersecting the apex of the strip.

Further objects and advantages will be apparent from the following description, reference being had to the accompanying drawings wherein a preferred embodiment of the invention is illustrated.

In the drawings:

Fig. 1 is a perspective view looking downwardly on a fragment of added ceiling construction, showing the furring and the panels attached thereto therebelow, the basic ceiling being omitted for the sake of showing the new features of the invention;

Fig. 2 is a fragmentary view in perspective of two furrings, showing two panels attached thereto, the view being on a larger scale than Fig. 1; and

Fig. 3 is a fragmentary sectional view of two panels, joined with one another, and showing the reinforcing strip in position in the mortise of one of the panels.

Referring more in detail to the drawings, the furring strips are shown at 20; they are arranged parallelly of one another and are horizontally spaced from one another when the ceiling lies in a horizontal plane. These furring strips are suitably attached to the main ceiling (not shown). Standard panels are shown at 22; these panels are one foot wide and two feet long. One side edge of each panel is provided with a mortise 24 and the other side edge is provided with a tenon 26. Fig. 3 shows that edge of a panel having the mortise, and shows that end of the next adjacent panel having a tenon having a thick-

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ness equal to the width of the mortise. It will be observed from Fig. 3 that the width of the tenon is short with respect to the depth of the mortise so as to provide a space 28 between the outer edge of the tenon and the base of the mortise.

V-shaped reinforcing strip 30 is disposed within each of the spaces 28. The strips 30 are each disposed within a space 28 so that the arms thereof lie on opposite sides of a vertical plane intersecting the apex of the strip, when the panels lie horizontally. Each of these strips 30 extends throughout a full length of a panel, namely, each is two feet long and therefore extends from one furring strip to the next adjacent furring strip.

Heretofore, that is prior to the use of the herein disclosed reinforcing strip 30, each standard panel was nailed, or otherwise fastened to three furring strips; the furring strips were disposed at one foot centers; each end 32 of a panel was fastened to a furring strip and the intermediate portion of each panel was secured to an intermediate furring strip. I have found that by providing the reinforcing strip 30, the intermediate furring strip could be omitted. Thus I have not only provided for saving of substantially one-half of the furring strips, but also I have reduced the costs of applying the intermediate furring strips and the nailing of the panels to the intermediate furring strips.

These panels 22 may be formed of a material now used for sound-absorbing panels, and as will be seen from Fig. 2, the panels are provided with a plurality of holes which aid in absorbing the sound.

While the form of embodiment herein shown and described constitute a preferred form, it is to be understood that other forms may be adopted falling within the scope of the claims that follow.

I claim:

1. The combination in ceiling construction with a plurality of parallelly arranged and horizontally spaced furrings, of panels, each having the ends attached to furrings and the confronting side edges of two panels connected with one another by mortise and tenon joint, one of said confronting edges having a tenon, and the other confronting edge having a mortise, the width of the mortise being equal to the thickness of the tenon so as to closely embrace the sides of the tenon, the mortise being greater in depth than the width of the tenon, whereby to provide a space between the end of the tenon and the rear wall of the mortise; and a reinforcing strip confined entirely in the space in said mortise.

2. The combination in ceiling construction with a plurality of parallelly arranged and horizontally spaced furrings, of panels, each having the ends attached to furrings and the confronting side edges of two panels connected with one another by mortise and tenon joint, one of said confronting edges having a tenon, and the other confronting edge having a mortise, the width of the mortise being equal to the thickness of the tenon so as to closely embrace the sides of the tenon, the mortise being greater in depth than the width of the tenon, whereby to provide a space between the end of the tenon and the rear wall of the mortise; and a V-shaped reinforcing strip confined entirely in the said space in the mortise with the arms of the V-shaped strip being disposed on opposite sides of a vertical plane intersecting the apex of the strip.

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