June 3, 1958 J. J. CRISSEY 2,836,859

CEILING STRUCTURE

Filed Aug. 4, 1955

Fig. 3

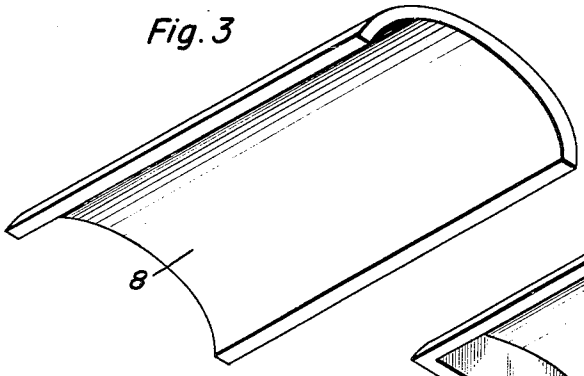


Fig. 4

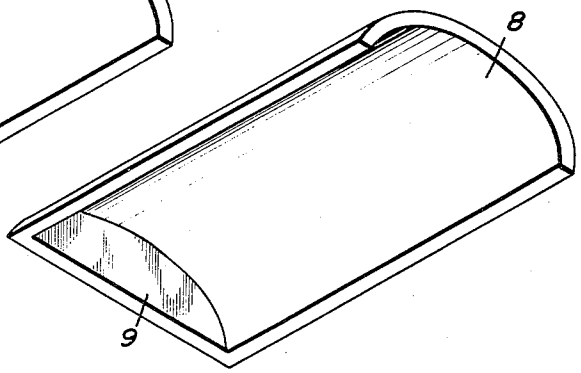
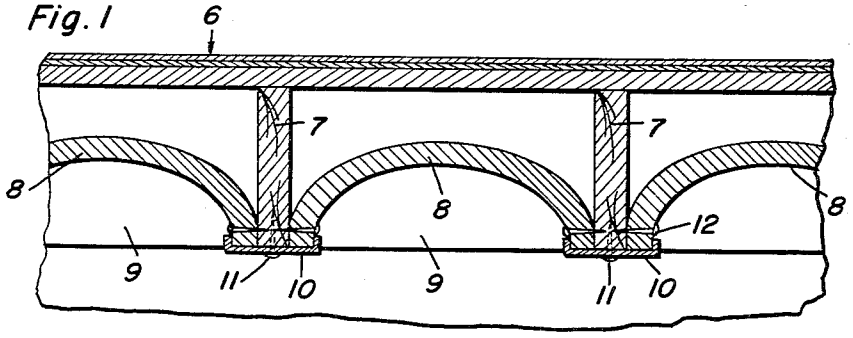


Fig. 1



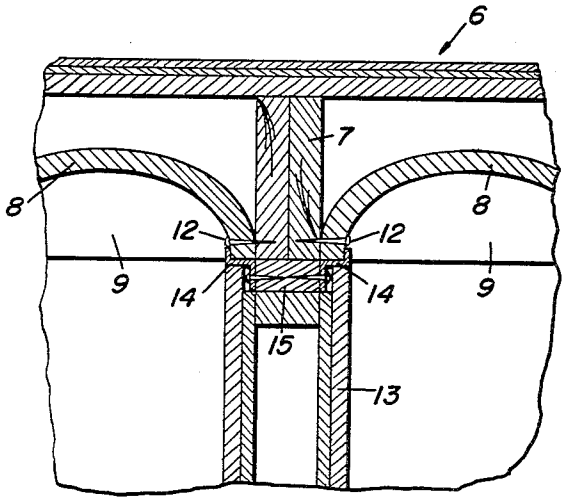


Fig. 2

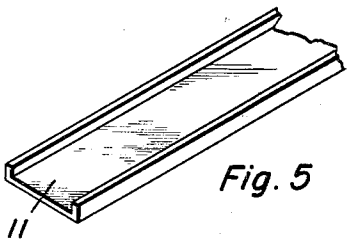


Fig. 5

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CEILING STRUCTURE

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Application August 4, 1955, Serial No. 526,468

1 Claim. (Cl. 20—1)

The present invention relates to new and useful improvements in ceilings, particularly for residential and commercial buildings, and has for one of its important objects to provide, in a manner as hereinafter set forth, a novel precast slab or panel having all the desirable acoustical properties, insulation values, appearance, etc., which may be expeditiously installed between the joists of the structure with a minimum of labor.

Another very important object of the invention is to provide a ceiling structure of the aforementioned character which includes a unique method of securing the panels in position.

Other objects of the invention are to provide a ceiling structure of the character described which will be comparatively simple, strong, durable and which may be manufactured and installed at low cost.

These together with other objects and advantages which will become subsequently apparent reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming a part hereof, wherein like numerals refer to like parts throughout, and in which:

Figure 1 is a cross-sectional view through a portion of a ceiling constructed in accordance with the present invention;

Figure 2 is a cross-sectional view showing the invention at an inside partition;

Figure 3 is a bottom perspective view of one of the intermediate panels;

Figure 4 is a bottom perspective view of one of the end panels; and

Figure 5 is a perspective view of an end portion of one of the channel bars.

Referring now to the drawing in detail, it will be seen that reference character **6** designates generally a conventional built-up or laminated roof. The roof **6**, in the structure shown, is flat, and said roof is carried by the usual spaced, parallel joists **7**.

The embodiment of the present invention which has been illustrated comprises precast panels **8** of arcuate cross-section which are mounted in end abutting engagement with each other between the joists **7**. The intermediate panels are open at both ends. However, the end panels **8** comprise outer end walls **9**, as shown in Figure 4 of the drawing.

The longitudinal edges of the panels **8** rest in the projecting marginal side portions of channel bars **10** of suitable metal which are firmly secured beneath the lower edges of the joists **7**, as at **11**. Then, for additional strength, the longitudinal side portions of the panels **8** are secured to the opposed faces of the joists **7** by nails **12**.

When the building includes an inside partition, as indicated at **13** in Figure 2 of the drawing, the longitudinal edges of the panels **8** rest in metallic angle bars or members **14** which are mounted on the plate **15** of said partition.

It is thought that the invention will be readily understood from the foregoing, particularly by those in the construction industry. The precast arcuate panels **8**, which may be of any desired dimensions, are preferably of a material having heat insulating and acoustical properties. Also, the panels **8** may be attractively colored and ornamented as desired. The construction and arrangement is such that the ceiling may be rapidly installed with relatively little labor. Still further, access may be had to the interior of the roof structure with comparative ease in the event of water damage.

The foregoing is considered as illustrative only of the principles of the invention. Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction and operation shown and described, and accordingly, all suitable modifications and equivalents may be resorted to, falling within the scope of the invention as claimed.

What is claimed as new is as follows:

A permanent ceiling structure comprising spaced, parallel wooden joists, elongated precast panels of heat insulating material and of arcuate cross section mounted longitudinally between the joists and having their longitudinal marginal portions in side-abutting engagement therewith, nails penetrating the panels and entering the joists, channel bars secured longitudinally to the lower edges of the joists and engaged beneath the longitudinal edges of the panels, said channel bars including upstanding side flanges spaced from the joists and receiving the panels therebetween, and a roof mounted on the joists in spaced relation to the panels.

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