Sept. 20, 1932. L. A. BERGER 1,878,812

CEILING

Filed Sept. 8, 1930

Fig. 1

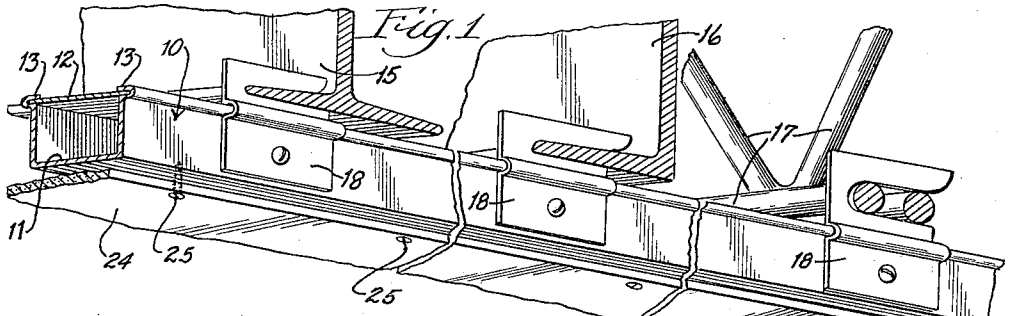


Fig. 2

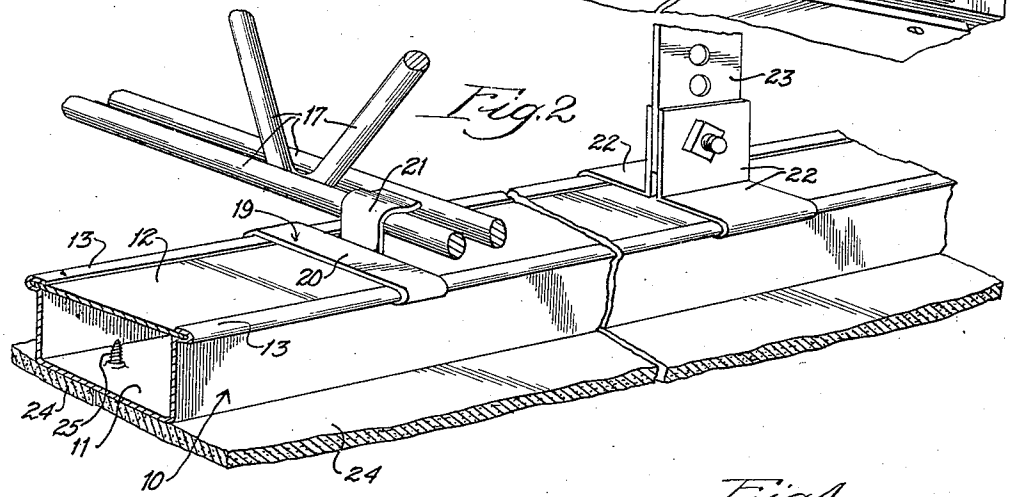


Fig. 4

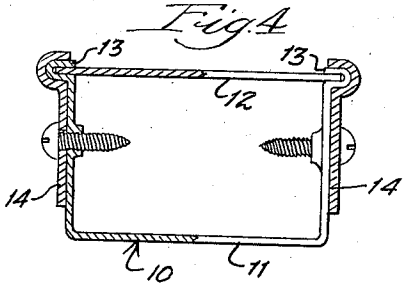
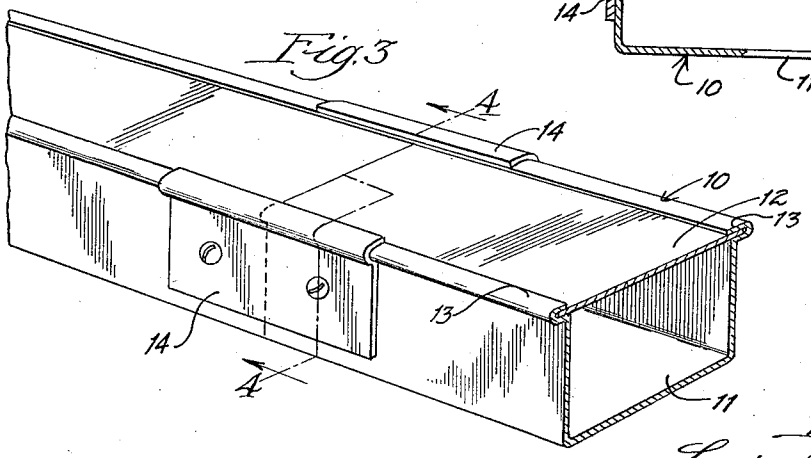


Fig. 3



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UNITED STATES PATENT OFFICE

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CEILING

Application filed September 8, 1930. Serial No. 480,303.

This invention relates to ceilings, and has for its principal objects to provide an improved ceiling runner or stud, and improved means for supporting same from the structure of the building.

The invention will be readily understood from the following description of a preferred embodiment thereof, taken in conjunction with the accompanying drawing, in which—

Figure 1 is a perspective detail, partly in section, showing the runner and means for suspending same from typical subflooring units;

Fig. 2 is a perspective detail, partly in section, illustrating further means for suspending the runner;

Fig. 3 is a perspective detail of the runner, illustrating the method of joining sections thereof together; and

Fig. 4 is a section on the line 4—4 of Fig. 3.

Referring to the drawing, the numeral 10 designates the runner which consists of a channel 11 closed by a covering plate 12. The edges of the channel may be bent around the covering plate so as to form beads 13 which project beyond the side walls of the channel, as shown in the drawing, this being one convenient way of producing the closed channel construction under description.

The runner may be manufactured in sections of desired length and the sections may be joined together in any suitable manner. For example, as shown in Figs. 3 and 4, fish-plates 14 may be secured to the sides of abutting channels by screws. The fish-plates are preferably ribbed at their upper edges to engage the beads 13 and impart rigidity to the joint.

Various means may be employed for suspending the runners from the subflooring depending upon the nature of the support afforded. In Fig. 1, I have shown a form of support suitable for use with structural steel units, such as an I joist 15, an angle joist 16, and a bar or open steel joist 17. The support 18 is in the form of a plate, ribbed horizontally to engage the beads 13 when the lower part of the plate is secured to the sides of the channel 11, for example, by screws. The upper portion of the support 18 is horizontally recessed to engage the horizontal members supporting the subflooring, as shown. The horizontal ribbing of the supports 18 materially assists in mounting them rigidly upon the runner. It will be understood that the supports may be applied to the runner which is then slid into position, or they may be applied during positioning of the runner. Such supports may be used instead of the fish-plates 14 to secure two sections of runner together.

In Fig. 2, I show a support 19, formed from a transverse strip 20 of flat stock, the ends of which are bent to engage the beads 13. The strip has a lateral extension 21 which is bent upwardly and outwardly to engage a steel joist 17 or the like.

In Fig. 2 I show a further form of support comprising two angle members 22, an end of each being bent to engage one of the beads 13. The vertical webs of the angle members are bolted together and to a suitable depending hanger 23.

It is to be understood that the bottoms of the channels 11 lie in a plane and that no supporting or other member projects therebeyond, so that wallboards 24, or other composition or flat sheet material, may be readily applied thereto. The wallboards 24 may be secured to the channel by means of screws 25 or other suitable means.

While the stud or runner 10 is highly desirable for use as a ceiling runner, it may obviously be employed in other constructions, for example, for vertical studding in partitions of furring.

The beads 13 of the runner have important functions. They add materially to the strength of the runner and enable effective rigid attachment of jointing elements and supports, while avoiding projection of parts beyond the face of the bottom of the channel 11.

Although the invention has been described in connection with the specific details of preferred embodiments thereof, it must be understood that such details are not intended to be limitative of the invention except insofar as set forth in the accompanying claims.

I claim:

1. A hollow metal stud adapted for use as a support for a flat sheet, comprising a channel, a covering plate secured thereto by beads projecting beyond the sides of the channel, and fish-plates secured to abutting stud sections, the fish-plates being ribbed to engage the beads.

2. A hollow metal stud adapted for use as a support for a flat sheet, comprising a channel, a covering plate secured thereto by beads projecting beyond the sides of the channel, and fish-plates secured to abutting stud sections, the fish-plates terminating above the bottom of the channel and being ribbed to engage the beads.

3. In combination, a hollow metal runner provided with laterally projecting beads, supports secured to the sides of the runner so as to engage the beads, said supports extending upwardly beyond the runner and provided with means for engaging an adjacent support.

4. In combination, a hollow metal runner provided with laterally projecting beads, supports secured to the sides of the runner so as to engage the beads, said supports terminating above the bottom of the runner and extending upwardly therebeyond, and means on the upward extensions for engaging an adjacent support.

5. A runner support comprising a plate adapted to be secured to the side of a runner, the plate being provided with a rib to engage a bead on the runner, and its upper end being recessed to engage an adjacent support.

In testimony whereof, I have hereunto set my hand this 29th day of August, 1930.

LOUIS A. BERGER.