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FURRING HANGER

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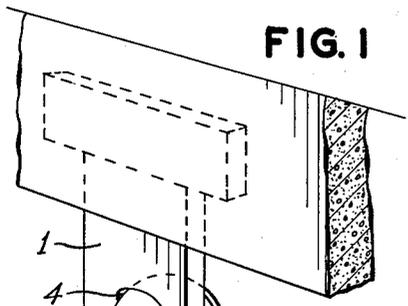


FIG. 1

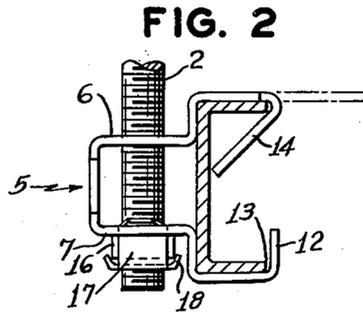


FIG. 2

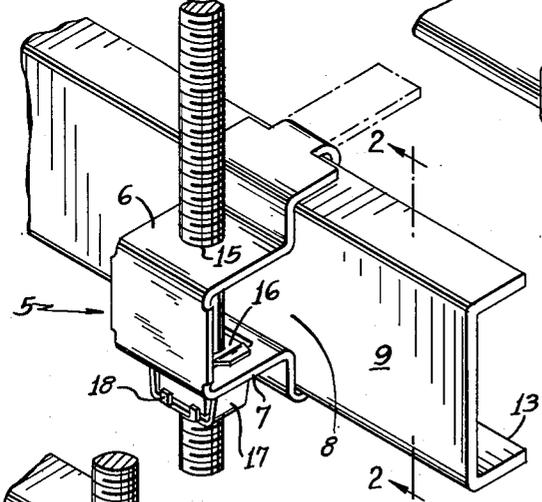


FIG. 3

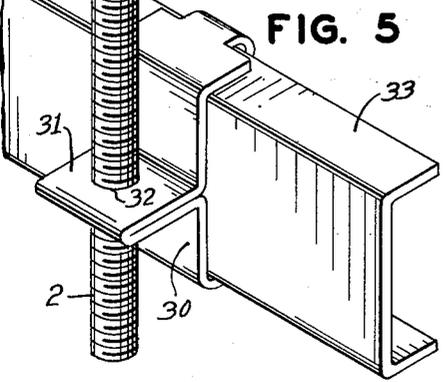


FIG. 4

FIG. 5

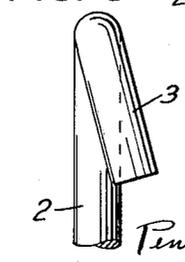


FIG. 6

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FURRING HANGER

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Application September 30, 1950, Serial No. 187,717

1 Claim. (Cl. 248—317)

1 This invention relates to hangers for suspend-
ing furring bars from ceilings as in lathing in-
stallations, and has for its object the provision of
an improved hanger extension rod and clip combi-
nation for attaching to and supporting the
furring bars. My invention aims to eliminate
several time-consuming operations now neces-
sary in the installation of furring bars, such as
channel or angle bars.

It is the present practice in the lathing of
ceilings to set T-shaped concrete members, known
as "hanger inserts," in the concrete beams or
floor above the ceiling. Each insert has a de-
pending strap with a hole near the lower end
for attaching a hanger extension strap. The
hanger extension strap is bolted at the top to
the depending strap and at the bottom to the
furring bar. What appears to be a simple in-
stallation is actually time-consuming. The ex-
tension strap must first be cut to length and
then a hole punched for the top bolt. The ex-
tension strap is bolted in position to the de-
pending strap and a level line is drawn to locate
the hole for the lower bolt which enters the furring
bar. The extension strap is then removed to
punch the lower hole after which it is replaced
by bolting the top of the extension strap to the
depending strap and then the lower end is bolted
to the furring bar. Moreover, such tools as
punches, shears, screw-drivers, pliers and
wrenches are necessary. My invention elimi-
nates the aforementioned operations which are
expensive at present labor costs, and the only
tools required to install the furring bars with my
improved hanger extension rods and clips are a
bolt cutter and a hammer.

The hanger extension rod of my invention has
a hooked end for engaging the hole in the de-
pending part of the hanger insert and a rela-
tively long threaded section on the lower end.

The hanger clip of my invention is preferably
formed of sheet metal shaped to be slipped over
the furring bar and set at any desired position.
In an advantageous embodiment of the invention,
the clip has a tab for bending over the furring
bar to secure it in position merely by striking it
with a hammer. I provide means for effecting a
threaded connection between the extension rod
and the clip. To this end I may attach a nut
to the clip or even thread portions of the clip
itself. The threaded end of the rod may be
slipped through a hole in the clip and secured
from below by a nut.

In its preferred embodiment, the clip is screwed
onto the extension rod to its desired position, the

2 hook is inserted in the hole in the depending
strap, the furring bar is slipped into the clip, and
the tab is struck with a hammer to clinch the
clip in position.

5 One of the important features of my invention
is that the clip may easily be set to the ceiling
line merely by screwing it to the desired position
on the extension rod and then the projecting part
of the rod is sheared off.

10 In the accompanying drawings:

Fig. 1 is a perspective, from one side, of a hanger
extension rod and clip of my invention as at-
tached to a channel-bar furring;

Fig. 2 is a section at 2—2 of Fig. 1;

15 Fig. 3 is a perspective from one side of an angle
bar and clip embodiment of the invention;

Fig. 4 is a sectional view of a modification;

Fig. 5 is a perspective, from one side, of an-
other modification, and

20 Fig. 6 is a side view of the hooked portion of
the extension rod.

Fig. 1 illustrates a hanger extension rod and
clip combination of my invention in a typical
installation. The T-shaped concrete hanger in-
sert 1 is set either in the concrete slab or the
concrete beams above the ceiling to be installed.
The hanger extension rod 2 in the form of a
round rod has a hook 3 at the upper end which
is inserted in the hole 4 at the depending end
of the hanger insert. I prefer to construct the
hook, as shown in Fig. 1, on such an angle that
the bearing is in the crotch of the hook to pre-
vent slipping and displacement. Fig. 1 shows
the hook part 3 at an angle of some 45° to the
shaft of the rod. As shown in Fig. 6, the hook
part is also bent sideways, say, around 15°, to
prevent accidental dislodgment by exerting an up-
ward force. The lower end of the hanger exten-
sion is threaded over an appreciable distance,
for example, about twelve inches. The hanger
clip 5 of Fig. 1 is preferably formed of strap steel
and is folded so as to provide the spaced lateral
extensions 6 and 7 along one side and the ends
are bent to form a space 8 for receiving the
channel bar 9. One of the ends is bent to form
a hooked tab 12 to engage the edge 13 of the
channel bar, and the other end has a projecting
tab 14 which is trimmed to relatively narrow di-
mensions to facilitate bending to lock the clip
in position.

The lateral extension 6 has a hole 15 for re-
ceiving the threaded end of the extension bar 2.
Extension 7 has an opening 16 in which is in-
serted the mounting cleat 17 of the Tinnerman
nut 17. In the suspension of furring bars by

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the improved suspension means of Fig. 1, the suspension rods are hooked in the holes of the concrete hanger inserts, the level line for the ceiling is run, and the clip is threaded to the desired position on the extension rod by running the rod in the nut 18. The channel furring bar is then placed in the position, as shown in Figs. 1 and 2, with the tab 11 as shown in broken lines. After the channel bar is mounted in its permanent position, the tab 14 is struck with a hammer to bend it to the locked position shown in full lines and the lower projecting end of the extension bar is sheared off.

Fig. 3 illustrates an embodiment of the invention in which the clip 20 mounted on the rod 2 is shown in its position securely attached to the angle bar 21. A clip of the type illustrated in Figs. 1, 4, or 5 may be used for attachment to the angle bar.

Fig. 4 illustrates a modification of the form of clip illustrated in Fig. 1. The clip has similar lateral extensions, tabs and holes for receiving the extension rod 2. In this modification, the nut 24 in which the rod 2 is threaded is held in a secured position on the lower lateral extension by welding. It is understood, of course, that an appropriate hole is formed in the lateral extension but the nut is secured in position.

In the modification shown in Fig. 5, the clip 30 is also formed of bent sheet metal. The metal is folded upon itself to form the double thickness lateral extension 31 which has a threaded hole 32 into which the rod 2 is threaded. This clip also has upper and lower tabs similar to tabs 12 and 14 of Fig. 1 and is shown in its secured position on the channel bar 33.

In Figs. 1, 4 and 5 the clips cannot become displaced by unthreading due to vibration. In the modification of Fig. 4, the nut may be left loose (not welded). Such loose nut may be prevented from loosening by striking the threads with a hammer or by using one of the many self locking nuts.

I have illustrated the use of my invention in the installation of channel and angle bars be-

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cause they are widely used for the purpose but it is to be understood that my invention is applicable to other bars such as T-bars. The tab 12 illustrated as bent upwardly to form a hook over the edge 13, may also be bent inwardly in the direction of the rod 2.

This application is a continuation-in-part of my application Serial No. 116,898, filed September 21, 1949, now abandoned.

I claim:

The improvement in hangers for suspending furring bars which comprises in combination an extension rod having means at the upper end for connection to a depending hanger insert and a threaded lower end portion, a clip formed of a single piece of bent sheet metal having vertically disposed bearing sections for contacting a vertical surface of the furring bar, two lateral extensions bent at substantially right angles from the vertically disposed bearing surfaces, a hole in each lateral extension for the insertion therethrough of the threaded end portion of the rod, threaded means for securing the clip in adjusted position longitudinally of the rod, upper and lower extensions from the vertical sections for engaging the upper and lower surfaces of the furring bar respectively, and upper and lower end tabs for engaging the furring bar to secure the clip in position, whereby the rod when in a vertical position may be inserted through the holes and secured to the clip along one side of the furring bar.

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