

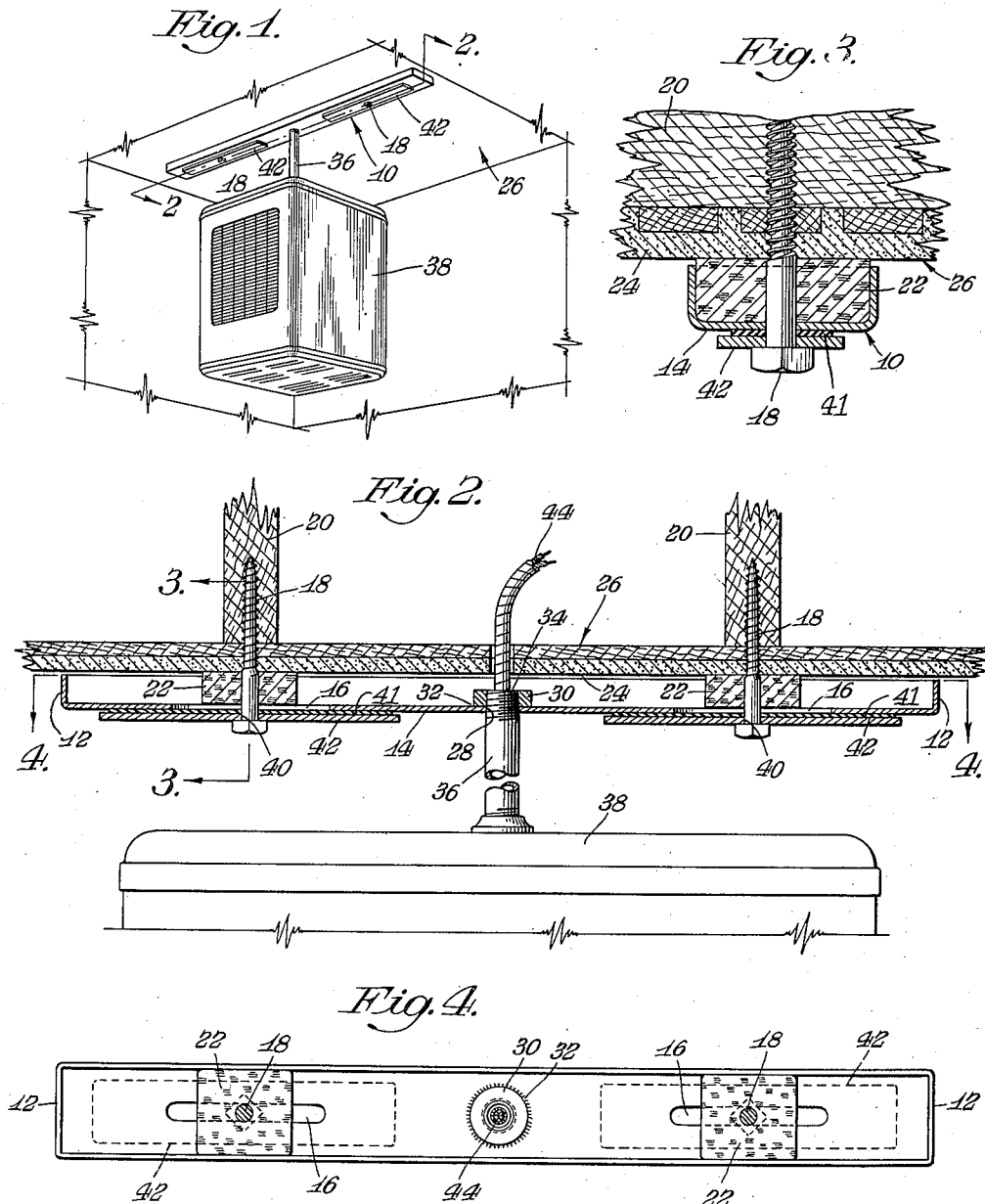
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HANGER

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HANGER

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2 Claims. (Cl. 248—18)

My invention relates to the suspension of heaters, motors, and overhead machinery of various types, and has among its objects and advantages the provision of an improved hanger.

Conventional hangers for suspending heaters and other machinery necessitate destruction of a large area of the ceiling before the hanger can be anchored to the joists. Because of the destruction of a relatively large area of the ceiling, canopies are required for covering the opening and providing a finished appearance to the installation. Such canopies embody considerable material and increase the cost of installation.

An object of my invention is to provide a hanger embodying means for connection with the joists in the ceiling structure, in which the hanger may be anchored without necessitating destruction of a large area of the ceiling.

A further object is to provide a hanger embodying novel adjustment for joists of different spacings, and in which the hanger includes adjustment which permits precise adjustment and positioning of the device carried by the hanger regardless of the direction in which the joists run. My invention also embodies anchorage for ceilings of concrete, etc.

Another object is to provide a hanger including means for damping vibrations and noise generated by operating machinery.

A further object is to provide a hanger which may be anchored to the ceiling without necessitating reconstruction of any part of the ceiling, and in which the hanger embodies relatively few parts and an ornamental appearance.

In the accompanying drawing:

Fig. 1 is a perspective view illustrating my hanger anchored to a ceiling for supporting a conventional gas unit heater;

Fig. 2 is a sectional view along the line 2—2 of Fig. 1;

Fig. 3 is a sectional view along the line 3—3 of Fig. 2; and

Fig. 4 is a bottom plan view.

In the embodiment selected to illustrate my invention, I make use of a steel channel 10 which is preferably provided with end walls 12. The bight 14 of the channel is provided with slots 16 extending longitudinally of the channel for the reception of lag screws 18 anchored in the joists 20.

Within the channel 10 I mount two cork blocks 22 which have sufficient depth to engage the plaster 24 of the ceiling 26 for holding the flanges of the channel in slightly spaced relation therewith. These blocks act as cushions for damp-

ing vibrations and noise. The blocks further function as cushions which permit the channel to be effectively clamped against the ceiling without impairing the ceiling structure. The lag screws 18 pass through the cork blocks 22 to prevent accidental displacement of the blocks.

While I have illustrated cork for cushioning purposes, blocks of other material may be employed. Because of the slots 16, the screws 18 may be adjusted longitudinally of the channel 10 for alignment with joists 20 of different spacings. The blocks 22 may be adjusted with the screws.

An opening 28 is provided in the bight 14. The opening is spaced equal distances from the ends of the channel 10, and is reinforced by a flange 30 welded at 32 to the bight. This flange is internally threaded, and has threaded relation at 34 with a pipe 36 having connection with a conventional heater 38 for supporting the latter.

The screws 18 pass through openings 40 in the plates 42 lying against the outer surface of the bight 14. Resilient pads 41 are positioned between the plates 42 and the bight 14. These plates are considerably longer than the slot 16 for covering the slots in all positions of the screws 18 for accommodating the joists of different spacings. In fastening the hanger to the ceiling, the screws 18 are spaced equal distances from the pipe 36 so as to provide a balanced appearance.

My hanger is easily connected with a ceiling by merely locating the position of the joist 20 and anchoring the screws 18 in the joist. With the screws anchored, the hanger will support relatively heavy loads, and the cushioning means dampen vibrations to a degree which protects the ceiling 26 in addition to eliminating noise. Because of the one depending pipe 36, the unit gas heater 38, or other device carried by the anchor, may be adjusted about the vertical axis to attain precise position. Thus, accurate positioning may be attained regardless of the direction in which the joists run.

Obviously, the hanger may be anchored in other types of ceiling construction, such as concrete, by substituting expansion shields and lag bolts for the lag screws 18. The hanger is ornamental in appearance, and eliminates the necessity of making large openings in the ceiling structure to permit mounting of the hanger. Various types of machinery may be suspended from the ceiling, and the pipe 36 functions as a conduit for electrical wires 44 in cases where electrical machinery is employed.

Without further elaboration, the foregoing will

so fully explain my invention that others may, by applying current knowledge, readily adapt the same for use under various conditions of service.

I claim:

- 5 1. A hanger comprising a channel having slots in its bight, cushioning means positioned inside the channel for pressure relation with a supporting structure, a fastening element passing through each of said slots for connection with the supporting structure, a cover plate positioned
10 adjacent the outer face of the bight over each of said slots and having an opening for receiving the fastening element passing through that slot, and a load supporting member depending from said channel midway between said slots.

- 15 2. A hanger comprising a channel having slots

in its bight, a cushioning member positioned inside the channel over each of said slots for pressure relation with a supporting structure, a fastening element passing through each of said slots and the cushioning member associated therewith
5 for connection with the supporting structure, a cover plate positioned adjacent the outer face of the bight over each of said slots and having an opening for receiving the fastening element passing through that slot, and a load supporting
10 member depending from said channel midway between said slots, each of said fastening elements and the plate and cushioning member associated therewith being movable toward and away from said load supporting member as a unit. 15

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