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HUNG CEILING FOR SOUND INSULATION

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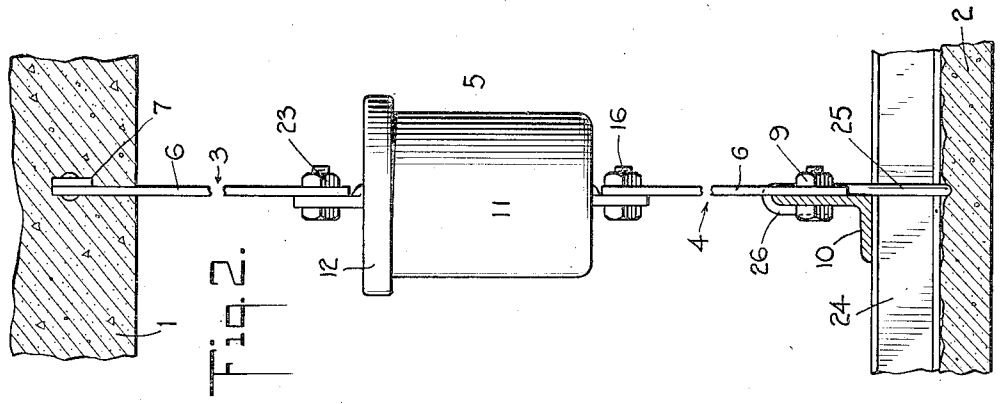

Fig. 2.

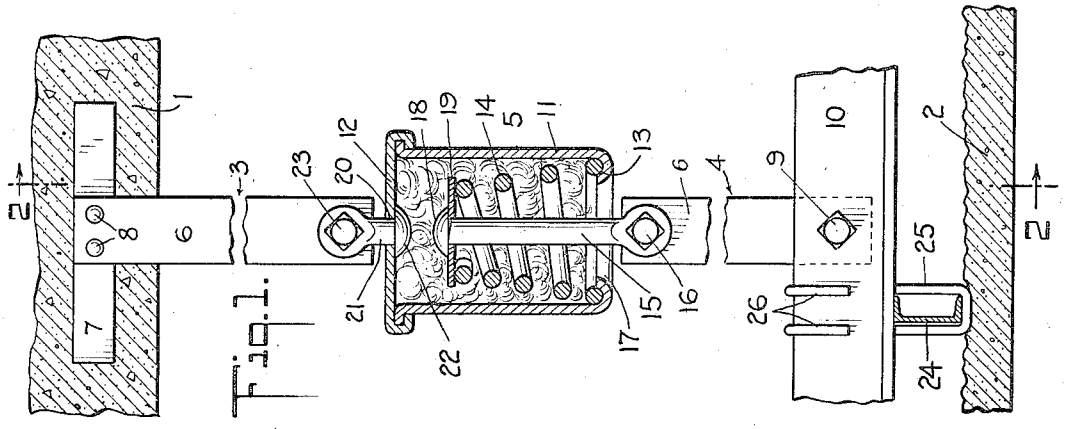

Fig. 1.

WITNESSES

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HUNG CEILING FOR SOUND INSULATION

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1 Claim. (Cl. 72—118)

The present invention relates to a hung ceiling and more particularly to a ceiling hanger designed to support a suspended ceiling and to permit a slight vertical movement thereof under the impulse of vibrations produced by sound waves or otherwise.

The object of the present invention, however, is to suspend the ceiling so that it may have a slight up and down movement under the impulse of the sound vibrations produced and thus provide a yielding surface against which such sound waves may strike and be absorbed as it were, and to prevent the transmission of sound to the room which may be above.

To the above ends the present invention consists of a ceiling hanger for a suspended ceiling, so arranged that the ceiling may have a slight resilient movement and yet be effectively supported at all points.

The present invention is shown in the accompanying drawing in which

Figure 1 shows one of the ceiling hangers, parts of the yielding coupling being shown in vertical section, and also showing parts of the overhead support and of the supported ceiling;

Figure 2 shows the same construction shown in Figure 1, in side elevation.

Similar reference characters will be employed throughout the specification and drawing to designate corresponding parts.

In the drawing 1 indicates a portion of the upper support which may be a structural part of the building, usually formed of concrete, and 2 indicates the ceiling to be supported; that is to say, the plastic part of the ceiling usually made of mortar or plaster or some other plastic material suitable for the purpose. The hanger comprises an upper suspension device 3, a lower suspension device 4, and an intermediate yielding coupling 5. The upper suspension device consists of a metallic strap 6 of suitable length, shown broken in Figures 1 and 2 of the drawing, having at its upper end a cross member 7 affixed to the member 6 by rivets 8. The lower member 4 consists of a similar metallic strap also shown broken in Figures 1 and 2, which at its lower end is bolted as at 9 to an angle iron 10. Intermediate these two metallic straps 6 there is interposed a yielding coupling 5. This coupling comprises a cylindrical casing 11 which at its upper end is closed by a cap 12. At its lower end it has an inner flange 13 which supports a spiral spring 14. A rod 15 pivotally connected at its lower end as at 16 to the upper end of the lower strap passes into the casing 11 through the opening 17 formed by the flange 13. At its upper end the rod 15 is provided with a head 18 and passes through a plate or washer 19 which rests upon the upper end of the spring 14. The cap 12 is provided with a central opening 20 through which passes a relatively short cylindrical post 21 having on its lower end a head 22, the upper end of the post 21 being pivoted as at 23 to the lower end of the strap 6. It is to be understood of course that this arrangement permits a relative movement of the suspending straps 6 and a consequent cushioning suspension of the ceiling.

The ceiling construction includes the usual channel 24 which directly supports the ceiling 2 and this channel is supported from the angle iron 10 by means of hair-pin loops 25 through which the channel 24 may be passed, the upper ends of the loops 25 forming open hooks 26 as it were, arranged to take over the vertical flange of the angle iron 10 all as shown in Figures 1 and 2 of the drawing.

As a means of dampering or deadening any sound which may be produced by the movement of the parts the casing 11 may be provided with a relatively loose fibrous filling of hair, wool or other suitable material as indicated in Figure 1.

It is thought that the operation of the device has been made sufficiently clear by the foregoing description but it will be understood that as many of the ceiling hangers will be employed as may be required considering the weight and dimensions of the ceiling to be supported.

I claim:

A ceiling hanger comprising a cylindrical casing open at one end, a flange within the casing surrounding said opening, a coil compression spring supported by said flange, a suspension coupling passing through the spring and supported by a plate at the upper end thereof with the lower end projecting through the opening in the casing, a cap for the casing, a suspension coupling connected to the cap, and means to connect said couplings respectively to an overhead support and to the ceiling.

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