United States Patent

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[54] **ARTICLE SUPPORT FOR APERTURED PANEL**
8 Claims, 4 Drawing Figs.

[52] **U.S. Cl.** **248/223,** 248/DIG. 3
[51] **Int. Cl.** **A47f 5/00**
[50] **Field of Search** ..... 248/223, 224, 225, DIG. 3, 216, 217, 220.5; 211/89, 106

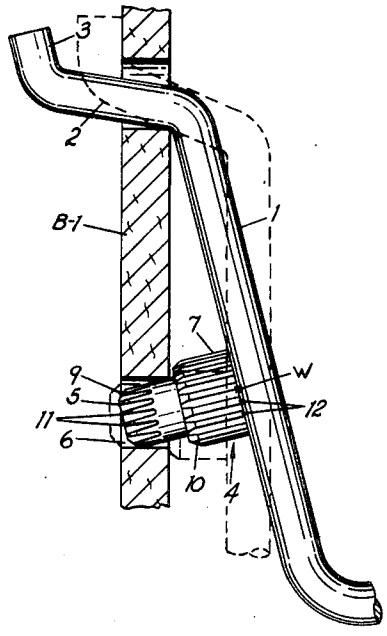
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ABSTRACT: A vertical wire has an inclined bend at its upper end with an upwardly extending tip to extend through and engage behind the holes in apertured panels of different thicknesses. A supporting stud is welded to a lower portion of the wire to engage in a lower hole in the board. The stud is stepped to provide a smaller rear portion engageable in smaller holes and a larger portion to fit in larger holes. The peripheries of both portions of the stud are axially serrated and their rear edges are tapered to bite into the edges of holes that vary from nominal sizes and facilitate penetration of the stud into the holes.



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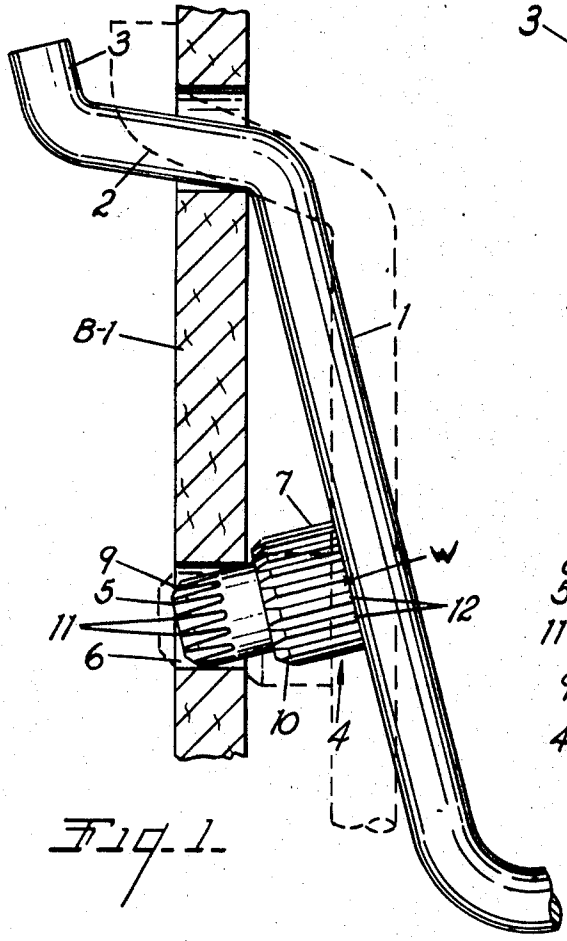


Fig. 1

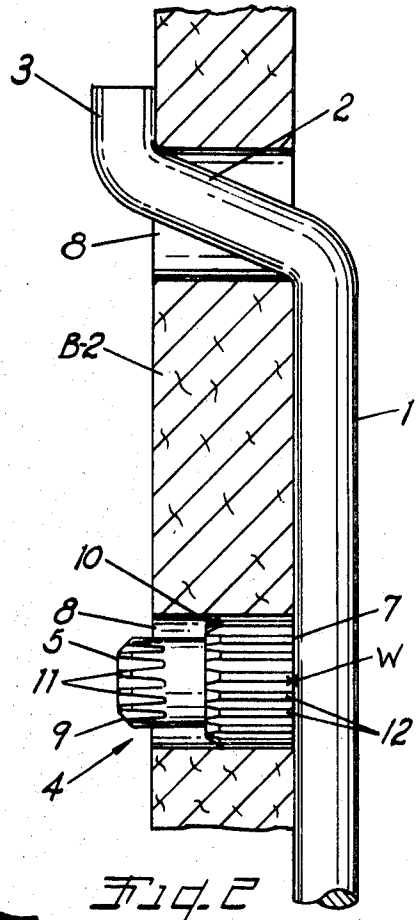


Fig. 2

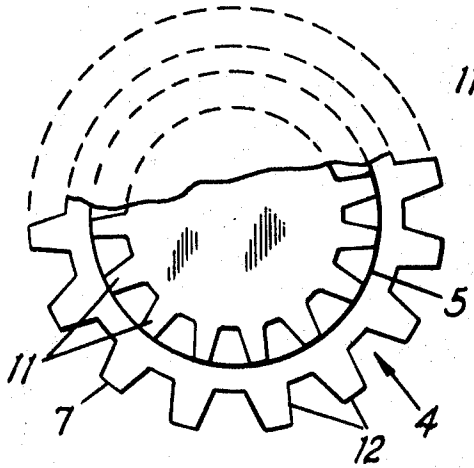


Fig. 3

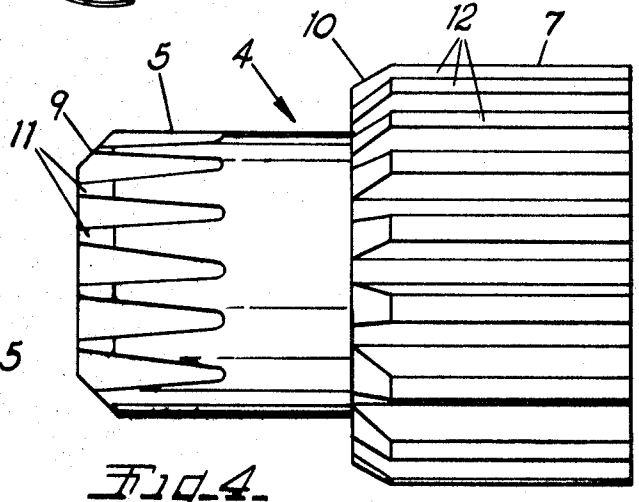


Fig. 4

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ARTICLE SUPPORT FOR APERTURED PANEL

SUMMARY OF INVENTION

An article supporting hook engageable in the holes of boards with rectangularly arranged apertures is arranged to fit on two commonly available panels having two different thicknesses and holes of different diameters. The dual utility of the hook is accomplished by providing both an inclined upper end engageable behind a thin board, and a rearwardly projecting stud that is axially stepped to provide two diameters engageable in either of the two common sized holes.

DESCRIPTION

The drawings of which there is one sheet illustrate a preferred form of the support.

FIG. 1 is a fragmentary side elevational view of the support engaged in an apertured panel of smaller thickness.

FIG. 2 is a fragmentary side elevational view of the support engaged in an apertured panel of greater thickness.

FIG. 3 is a fragmentary, enlarged, side elevational view of the stud on the back of the support.

FIG. 4 is an enlarged side elevational view of the stud.

Fiberboards commonly are available with rows of holes formed therethrough on various centers to receive wire hooks for supporting various articles on the board. Boards having a nominal thickness of one-eighth and one-fourth inch thickness are commonly available. The holes in the thinner have a nominal size of three-sixteenths inches, while the holes in the thicker boards have a nominal size of one-quarter inches. However, the actual sizes of the holes and the board thicknesses vary considerably depending upon the manufacturer. The present invention provides a wire support that will engage easily but firmly in apertured panels of the two nominal thicknesses regardless of the variations in the boards and their hole sizes.

FIG. 1 shows the support engaged in a thin board B–1 while FIG. 2 shows the support engaged in the thicker of the two types of board B–2 available. The support consists of an upright wire or rod 1 with a laterally, rearwardly inclined upper end 2, terminating in an upwardly extending retaining lug 3. When a weight is applied to the support, the incline 2 will engage behind the thinner board B–1, as shown by dotted lines in FIG. 1, while the lug 3 will engage behind the thicker board B–2. No novelty is claimed in this arrangement of the upper end of the support wire and variations of the inclined upper end can be used. The bottom end of the support wire may be curved forwardly into any desired shape, depending on the article to be supported.

A supporting stud, indicated generally at 4, is spot welded at W to the rod below the inclined upper end to enter into the next or another lower hole in the board. The stud is axially stepped to provide a smaller diameter rear section 5 which is sized to enter the smaller holes 6, and a larger forward section 7 sized to enter into the larger holes 8. The rear end of the smaller portion is tapered as at 9 and the rear end of the larger portion is tapered as at 10 to facilitate entry of the stud into each of the two different holes.

The periphery of the smaller rear portion 5 is provided with annularly arranged serrations 11 that taper in depth to the bottom of the bevel 9 to zero midway of the length of the rear portion 5. The larger portion 7 of the stud is provided with annularly arranged, axially extending, serrations 12 that provide gearlike teeth extending through the beveled end 10 and for the full length of the larger portion of the stud. It has been found that these serrations, cooperating with the bevels 9 and 10 permit the engagement easily and firmly with any of the presently available brands of commercial apertured panel.

While other variations are possible, the following dimensions of the stud and its serrations have been found to be most practical for an apertured panel support having universal application.

Length of stud 4—0.370 to 0.380
Length of stud 7—0.183 to 0.187
Length of tapers 9 and 10—0.017 to 0.023
Length of tapered serrations 11—0.93 to 0.103
Depth of serrations 12—0.056 to 0.064
Diameter of front portion 7—0.273 to 0.277
Diameter of rear portion 5—0.193 to 0.197

I claim:

1. An article support for apertured panels comprising
an upright wire having an inclined lateral offset near its upper end with a terminal tip above the offset that is parallel to the upright portion of the wire and adapted to enter through an upper hole in a panel,
and a rearwardly projecting stud secured to said wire to enter into a lower hole in the panel,
said stud being axially stepped with a small size rear portion and a larger size front portion to fit within different size holes,
the rear face of said larger size front portion being in a plane intersecting a medial portion of said lateral offset,
whereby the lateral offset will engage the rear of a thin panel when the smaller rear portion of the stud is engaged in a small hole,
the diameter of the larger front portion of the stud acting as a stop at the end of such small holes,
said larger size front portion of said stud having a diameter sized to fit within larger holes in available panels.

2. A support as defined in claim 1 in which the rear ends of the rear portion and the front portion of said stud taper to smaller diameters.

3. A support as defined in claim 2 in which the peripheries of said rear portion and front portion of said stud have axially extending serrations on at least portions of their peripheries.

4. A support as defined in claim 3 in which said serrations extend completely around the stud.

5. A support as defined in claim 4 in which the serrations in said rear portion taper to zero depth midway of the length of the rear portion.

6. A support as defined in claim 1 in which the peripheries of said rear portion and front portion of said stud have axially extending serrations on at least the upper and lower portions of their peripheries.

7. A support as defined in claim 6 in which the serrations in said rear portion taper to zero depth midway of the length of the rear portion.

8. A support as defined in claim 7 in which said serrations extend completely around the stud.

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