

### [54] HANGER CONSTRUCTION

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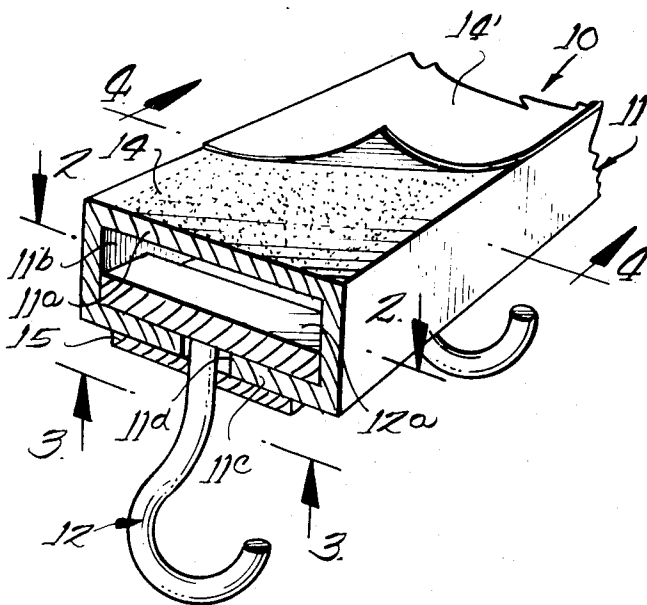
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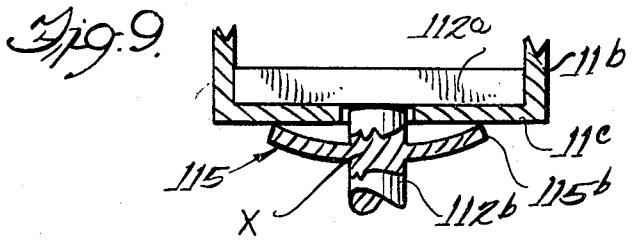
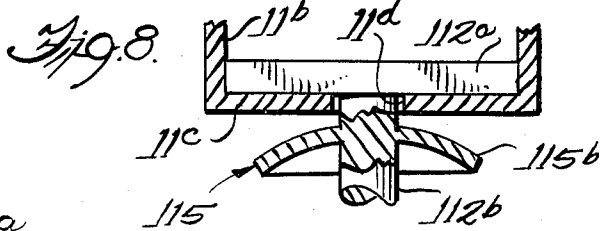
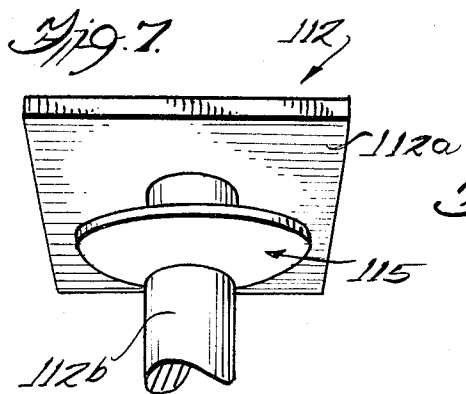
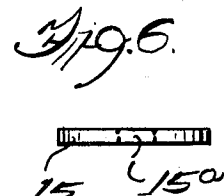
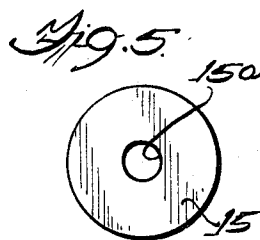
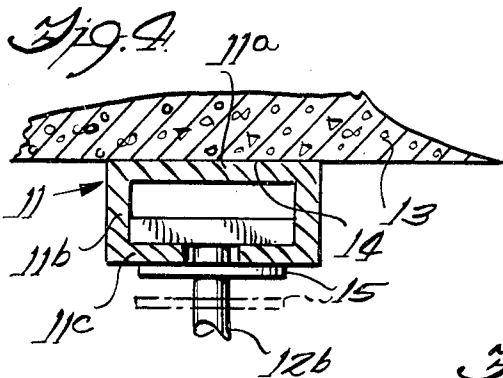
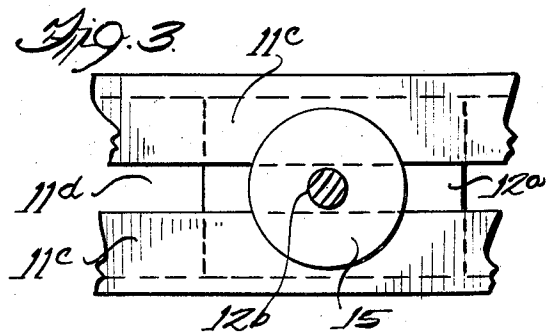
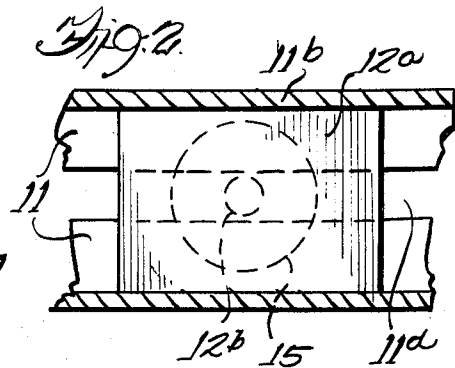
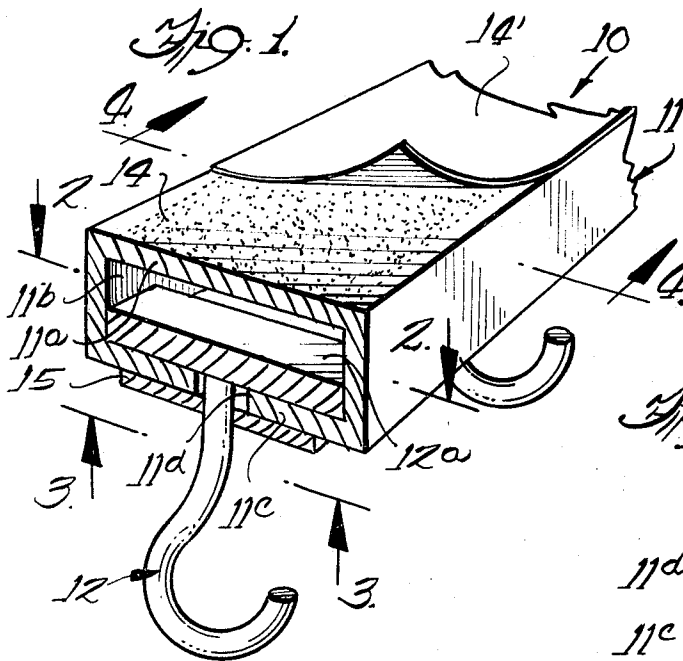
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### ABSTRACT

A hanger construction is provided for removably mounting various articles such as cups, pails, and various tools on a supporting surface. The construction includes a channel member secured to the supporting surface, and a hanger element carried by said channel member and adjustable longitudinally thereof to selected positions. The hanger element is provided with a head portion and a manually adjustable member, the latter being adapted, when in one position of adjustment, to resiliently sandwich portions of the channel member between said head portion and resilient member and retain said hanger element in a selected position.

7 Claims, 9 Drawing Figures





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## HANGER CONSTRUCTION

## BACKGROUND OF THE INVENTION

Oftentimes, it is desirable for utilitarian or decorative reasons to suspend various articles, such as cups, mugs, pots, pans, or various garden and carpenter tools from either a vertical or horizontal surface. Various devices to facilitate such suspension have heretofore been provided; however, because of various structural characteristics, they are beset with one or more of the following shortcomings: a) the device must be nailed or screwed into the supporting surface thereby defacing same; b) the device, once in place, cannot be readily adjusted to accommodate various types of articles or to relocate the articles on the supporting channel member; c) special tools are required to mount the device on a supporting surface; d) the device is bulky, awkward to handle, and unattractive in appearance; and/or e) the device is of flimsy construction and is restricted to supporting only very light weight articles.

## SUMMARY OF THE INVENTION

Thus, it is an object of this invention to provide a hanger construction which avoids the aforementioned shortcomings of the prior devices.

It is a further object of this invention to provide a hanger construction which has great versatility and may be installed for either indoor or outdoor use.

It is a further object of this invention to provide a hanger construction which is of compact, sturdy construction, and is capable of withstanding abusive handling.

Further and additional objects will appear from the description, accompanying drawing, and appended claims.

In accordance with one embodiment of the invention, an improved hanger construction is provided which comprises an elongated channel member having the outer distal edge portions thereof transversely offset to form supporting flanges, the latter delimiting an elongated narrow opening therebetween. The channel member has an elongated central section which is secured by a suitable adhesive to either a vertical or horizontal supporting surface. One or more hanger elements are carried by the channel member and are adjustable relative thereto to predetermined selected positions. Each hanger element includes a head portion disposed between the channel member leg sections and in contact with the concealed surface of said supporting flanges. A shank extends from the head portion through the elongated narrow opening delimited by the flanges. A resilient member is carried by the shank and is adapted to be manually adjusted into resilient frictional engagement with the exposed surface of said supporting flanges thereby retaining the hanger element in a selected position of adjustment with respect to the channel member.

## DESCRIPTION

For a more complete understanding of the invention reference should be made to the drawing wherein:

FIG. 1 is a fragmentary perspective end view partially in vertical section of one form of the improved hanger construction.

FIGS. 2 and 3 are sectional views taken respectively along lines 2—2 and 3—3 of FIG. 1.

FIG. 4 is a sectional view taken along line 4—4 of FIG. 1, but showing the hanger construction secured to a horizontal supporting surface.

FIGS. 5 and 6 are respectively, top and front views of the resilient member forming a part of the hanger construction of FIG. 1.

FIG. 7 is a fragmentary perspective view of a second form of hanger element.

FIG. 8 is similar to FIG. 4, but showing the hanger element of FIG. 7 in position for relative adjustment with respect to the channel member.

FIG. 9 is similar to FIG. 8, but showing the resilient member in position of frictionally engaging the channel member and

retaining the hanger element in a selected position of adjustment with respect to the channel member.

Referring now to the drawings and more particularly to FIG. 1, an improved hanger construction 10 is shown which includes a channel member 11 and a plurality of hanger elements 12 adjustably mounted thereon. The number and relative locations of the hanger elements may be varied as desired.

The channel member 11 may be formed of metal or extruded plastic and may vary in length depending upon the size of the supporting surface 13, see FIG. 4, to which it is secured.

The channel member 11 includes an elongated central section 11a, and a pair of elongated leg sections 11b projecting therefrom. The outer distal edge portions of the leg sections are transversely offset towards one another so as to form supporting flanges 11c. The flanges are preferably substantially parallel to the central section and delimit an elongated narrow opening 11d.

The outer or exposed surface of central section 11a is coated with a suitable adhesive 14 which is adapted to effectively bond the channel member to the supporting surface. Prior to the channel member 11 being secured to the surface 13, the adhesive coating 14 may be covered over by a suitable strip 14' which may be readily peeled off manually, when desired, so as to expose the adhesive coating.

Each hanger element 12 is provided with an enlarged head portion 12a, and a shank 12b projecting therefrom and extending through the narrow opening 11d formed in the channel member. Preferably, the shape and size of the head portion 12a is such that it spans the distance between the leg sections 11b and, therefore, is impassable with respect to the opening 11d. The dimension of the head portion relative to leg sections 11b is such that the element may be manually moved longitudinally of the channel member. To assemble or disassemble the channel member and hanger element, it is necessary that the hanger element be slipped endwise on or off of the channel member. The head portion, as shown, has a rectangular configuration and, therefore, once it has been assembled with the channel member, the hanger element will not twist relative to the channel member. It should be understood, of course, that the configuration of the head portion may be varied from that shown without departing from the scope of the invention.

The shank and head portion of the hanger element are preferably of one piece construction and may be made of plastic, metal or the like. In some instances, not shown, the segment of the shank disposed within the narrow opening 11d of the channel member 11 may have a rectangular cross-sectional configuration with two sides thereof approximately spanning the width of the opening. In such a situation, twisting of the element is prevented even though the head portion has an annular peripheral shape.

Adjustably mounted on the shank 12b and disposed beneath head portion 12a is a resilient member 15, see FIGS. 5 and 6. The member 15 may be formed of rubber or rubberlike material and is provided with a central opening 15a, the diameter of which is slightly less than the diameter of the shank 12b; however, the opening is stretchable thereby allowing the end of the shank to pass therethrough upon manual force being exerted on the member. Once the shank has been inserted through the opening of the member, the latter will be moved upwardly relative to the shank until it frictionally engages the exposed surface of the channel member flanges 11c. Thus, the flanges are resiliently sandwiched between the head portion 12a and the resilient member 15. The peripheral shape of member 15 may vary as desired; however, it should be impassable with respect to the opening 11d when it is mounted on the shank. Thus, when the member 15 is in frictional engagement with the flanges 11c, the hanger element will be retained in a fixed longitudinal position on the channel member.

FIGS. 7-9 show a modified form 112 of hanger element wherein the resilient member 115 is made an integral part of the shank 112b. The member 115 has a dished configuration and is flexible so that it can be manually adjusted to present

either a convex (FIG. 8) or concave (FIG. 9) surface with respect to the exposed surface of the channel member flanges 11c. The point of connection x between the center of member 115 and the shank 112b, is spaced axially from the underside of the head portion 112a, a distance which is greater than the thickness of the channel member flanges 11c; see FIG. 8. However, the axial distance is such that, when the member 115 is flexed upwardly so as to present a concave surface (see FIG. 9) to the flanges, the outer peripheral edge 115b will resiliently and frictionally engage the exposed surface of the flanges and thus, retain the hanger element 112 in a selected longitudinally adjusted position with respect to the channel member.

The hanger element 112 may be molded of plastic or the like and the thickness of the resilient member made sufficiently thin so that it will be possessed of the desired flexibility to permit manual flexing thereof. If desired, a small tab, not shown, may be formed on the underside of the member 115 so as to facilitate flexing thereof from the concave to the convex positions.

Thus, with either illustrated embodiment, the hanger element may be readily moved to its desired longitudinal position on the channel member and then be retained in such position by a simple manual adjustment of the resilient member. No tools or special dexterity are required of the installer to mount the channel member on the supporting surface 13 and/or to position the hanger elements on the channel member.

The distal or outer end of the shank of the hanger element may take various shapes other than that shown in the drawing and will depend upon the use to which the hanger construction is to be put. Furthermore, the channel member may be mounted on a vertical supporting surface, if desired, in which case the opening 11d will extend in a horizontal direction. Various adhesives having high bonding characteristics are available on the market for use in mounting the channel member on the supporting surface. Such adhesives, however, should not be deleteriously affected by temperature and/or humidity variations.

Thus, it will be seen that a simple, sturdy, and inexpensive hanger construction has been provided which does not require tools for mounting and does not deface the surface on which it is mounted. The hanger construction has great versatility and is adapted to accommodate a wide variety of articles.

I claim:

1. A hanger construction comprising an elongated channel member having a pair of spaced leg sections projecting from a central section, said leg sections being provided with transversely extending flanges forming an elongated narrow opening therebetween; means for securing the central section of said

channel member to a supporting surface; and a hanger element carried by said channel member and adjustable longitudinally thereof to selected positions; said hanger element including a head portion disposed between said leg sections and slidably engaging the inner surface of said leg sections and the inner surface of said flanges, a shank portion extending transversely from said head portion and extending through said narrow opening, said head and shank portions being of unitary construction, and a resilient member carried by said shank portion and movable relative to said flanges into resilient frictional engagement with the outer surface of said flanges to effect retention of said hanger element in a selected position of longitudinal adjustment with respect to said channel member.

2. The hanger construction of claim 1 wherein the outer surface of said channel member central section is provided with an adhesive coating for affixing said channel member to a supporting surface, and a removable strip overlying said coated surface.

3. The hanger construction of claim 1 wherein said resilient member comprises a piece which resiliently encompasses and is movable longitudinally of said shank towards and away from said head portion, said piece, when in one position of manual adjustment, resiliently engaging the outer surface of said channel member flanges and sandwiching said flanges between said head portion and said piece.

4. The hanger construction of claim 1 wherein said hanger element is only removable endwise of said channel member when said member is not in resilient frictional engagement with said channel member flanges.

5. The hanger construction of claim 1 wherein said shank and said resilient member are of unitary construction and the surface of the resilient member adjacent said channel member flanges being manually adjustable to assume either a concave, flange-engaging configuration wherein said hanger element and channel member are in substantially fixed relation, or a convex, non-flange engaging configuration wherein said hanger element is manually movable longitudinally of said channel member.

6. The hanger construction of claim 5 wherein the head portion is shaped so as to substantially span the distance between the channel member leg sections, and the segment of the shank adjacent said head portion is shaped so as to substantially span the distance between the flanges of said channel member.

7. The hanger construction of claim 2 wherein said channel member is a plastic extrusion; said hanger element is of one piece plastic construction; and said resilient member is a washer of rubberlike material.

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