

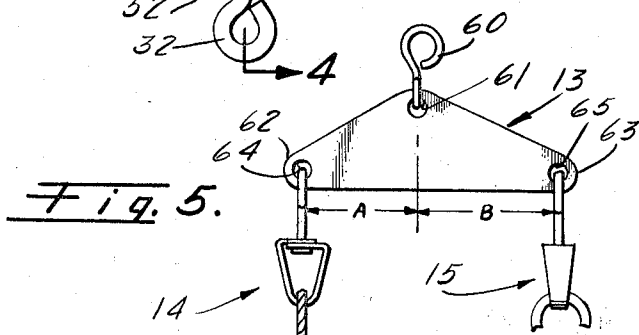
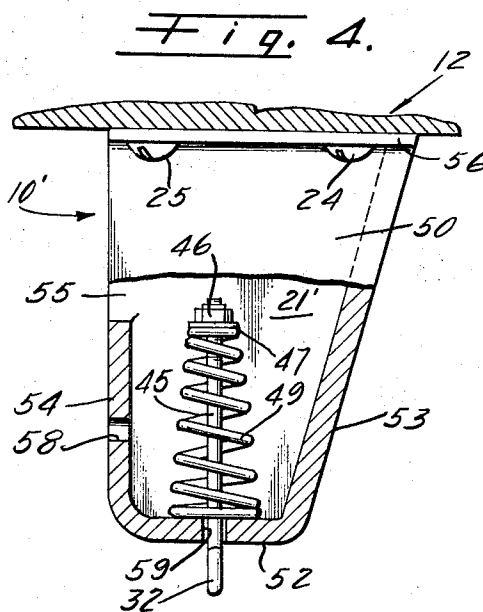
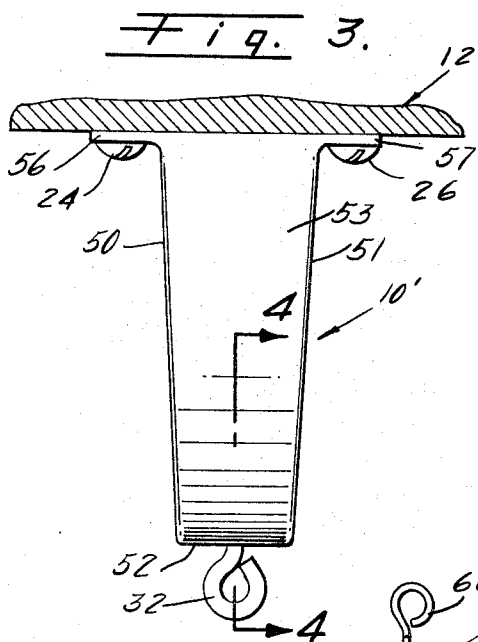
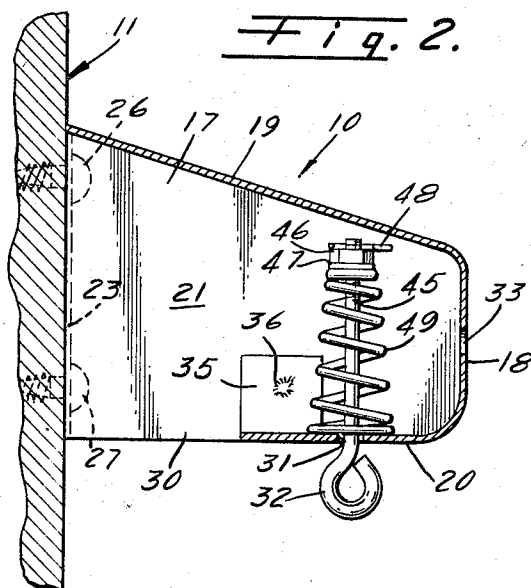
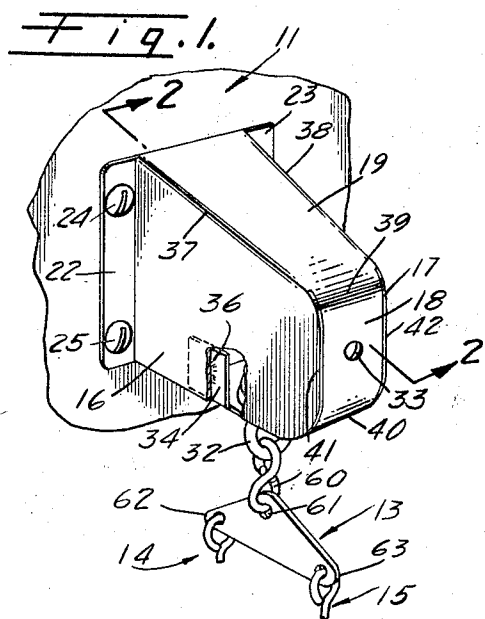
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PHONE BOOK HANGER

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PHONE BOOK HANGER

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4 Claims. (Cl. 248—207)

The invention relates to brackets and more specially to a neat appearing bracket such as are found useful for supporting relatively heavy telephone books in a telephone booth. Although the invention is directed particularly to a use of this kind, the configuration and construction is one suited to supporting any one of a variety of relatively heavy objects.

There are several noteworthy problems met in providing a support for a telephone book in a public telephone booth. Books used to supply telephone booths are usually very roughly and carelessly handled. Hence, any piece of hardware used for such purpose must be rugged and also capable of minimizing damage as much as possible under the circumstances. In metropolitan areas telephone directories must be rather heavy. When a person makes use of such a heavy directory and then undertakes to return it to its hanger, the common practice is merely to let it drop where it will jerk on the hanger and ultimately loosen the hanger attachment or perhaps either tear the hanger loose or tear the book loose from its attachment after repeated use. Also any piece of hardware which may be attractive tempts tampering by unauthorized persons. Further still, if a piece of hardware protrudes unduly and presents corners and projections, they are quite apt to damage or injure a user's clothing or person and provoke attempts at reimbursement.

Further still, telephone booths differ to a degree in their furnishing, some being provided with shelves, and others having no shelves but merely a vertical panel to which anything may be attached. As a matter of convenience in installation or replacement, it is advisable for the serviceman to require as little variety of inventory as possible for such purpose.

It is therefore among the objects of the invention to provide a new and improved hanger for relatively heavy objects which is versatile to the extent that with nothing more than a slight change in the field the hanger can be positioned effectively either on a vertical panel or on a horizontal panel.

Another object of the invention is to provide a new and improved hanger for relatively heavy objects which is neat and clean in line and appearance, devoid of protruding corners and edges, and wherein functional parts are effectively covered and protected, thereby to minimize temptation at tampering.

Still another object of the invention is to provide a new and improved hanger for objects like relatively heavy telephone directories which is balanced and cushioned so that more than one book of the type of a heavy directory can be suspended from it in balanced relationship, with the hanger of such construction that the connection is cushioned so as to minimize damage to both the hanger and the book when the book is dropped repeatedly during use.

Still another object of the invention is to provide a new and improved cushioned hanger of objects such as telephone directories which is inexpensive to manufacture, particularly easy to install in either of two positions and wherein such change as may be needed in the hanger assembly itself can be quickly and readily accomplished by installation personnel in the field.

With these and other objects in view, the invention consists in the construction, arrangement and combination of the various parts of the device, whereby the objects

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contemplated are attained, as hereinafter set forth, pointed out in the appended claims and illustrated in the accompanying drawings.

In the drawings:

FIGURE 1 is a front perspective view of the hanger shown attached to a vertical panel and partially broken away.

FIGURE 2 is a longitudinal sectional view on the line 2—2 of FIGURE 1.

FIGURE 3 is a front elevational view of a hanger installation mounted on a horizontal panel.

FIGURE 4 is a side elevational view of the device of FIGURE 3 partially broken away on the line 4—4 of FIGURE 3.

FIGURE 5 is a side elevational view of a yoke and hanger assembly useful in the device of FIGURES 1, 2, 3, and 4.

In an embodiment of the invention chosen for the purpose of illustration there is provided a housing indicated generally by the reference character 10 shown in FIGURES 1 and 2 attached to a vertical panel 11 and in FIGURES 3 and 4 attached to a horizontal panel 12. A yoke indicated generally by the reference character 13 is shown in FIGURE 5 provided with respective hangers 14 and 15 for objects such as telephone directories of different weights.

The housing 10 consists of side walls 16 and 17, an end wall 18 together with cover walls 19 and 20 which together enclose a chamber 21. Flanges 22 and 23 at the end of the housing opposite from the end wall 18 extend outwardly of the housing adjacent respective ends of the side walls 16 and 17, the flanges being provided with appropriate holes for the accommodation of screws 24, 25, 26 27.

As shown, the cover wall 20 extends for about only half the length of the housing 10, thereby to provide an access opening 30 to the chamber 21. In the cover wall 20 is a hole 31 for the accommodation of an eye bolt 32. A hole 33 in the end wall 18 is for a similar purpose. The cover wall 20 in the embodiment shown is provided with tabs 34 and 35 which are actually upwardly bent portions of the cover wall 20 lying within the chamber 21 and attached to the inside face of respective side walls 16 and 17 by some appropriate means such as spot welding. Constructed in this fashion the housing 10 can be relatively light in weight but particularly rigid, rugged and dependable. As shown, corners 37 and 38 are formed when the side walls 16 and 17 are bent from the cover wall 19. The end wall 18 is actually an extension of the cover wall 19 and is bent around a corner 39 of relatively large radius. Another corner 40 also of relatively large radius joins the end wall 18 to the cover wall 20. Although corners such as the corners 41 and 42 may be formed by soldering or welding, this is not necessarily required, even where the housing 10 is of relatively thin gauge sheet metal as shown in FIGURES 1 and 2.

A shank 45 of the eye bolt 32 extends slidably through the hole 31 so that most of the length of the shank is within the chamber 21. At the innermost end of the shank 45 a nut 46 is threadedly applied over a spring keeping washer 47 and a cotter pin 48 may be employed to make certain that the nut 46 does not come unscrewed. A somewhat conical coiled spring 49 presses against an inside surface of the cover wall 20 at one end and against the washer 47 at the other end. In the form of FIGURE 1 the housing 10 is mounted upon a vertical panel 11 and in such mounting the eye bolt is applied as shown and described to the cover wall 20. Should it be advisable to attach the flanges 22 and 23 and the housing 10 to a horizontal panel like the horizontal panel 12, the cotter pin 48 is removed together with the nut 46 and washer 47 thereby permitting the eye bolt to be withdrawn and

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reinserted into the hole 33 in the end wall 18. Following insertion the washer 47, nut 46, and cotter pin 48 may then be reapplied so that the eye bolt will extend downwardly when the flanges 22 and 23 are attached to a horizontal panel.

Although sheet metal has been suggested for construction of the housing as described in connection with FIGURES 1 and 2, a housing 10' may be made from cast material which may be either a synthetic plastic resin or some metallic material, such as has been suggested in FIGURES 3 and 4. In this form of device there are provided side walls 50 and 51, an end wall 52, and cover walls 53 and 54. The shortness of the cover wall 54 provides an opening 55 across the side of the housing 10' occupied by the cover wall 54. Flanges 56 and 57 accommodate screws like the screws 24, 25, 26, 27, previously described. In this form of invention the cover wall 54 is provided with a hole 58 and the end wall 52 with a similar hole 59, for the accommodation of the shank 45 of an eye bolt 32. Although in FIGURES 3 and 4 the eye bolt is shown mounted in the end wall 52, it may be removed in the same fashion as has been described in connection with FIGURES 1 and 2 and placed in the hole 58 of the cover wall 54. In this way the housing 10' like the housing 10 can be mounted on either a horizontal panel or a vertical panel.

The yoke 13 is shown in FIGURE 1 attached by means of an S hook 60 to the eye bolt 32. A hole 61 in the yoke 13 which accommodates the S hook is near one edge and intermediate opposite ends 62 and 63. A hole 64 in the end 62 is at a shorter distance, namely the distance A from the hole 60 than is a hole 65 in the end 63, namely the distance B. This means that the hanger 14, for example, and its appended weight (not shown) hangs at a different distance from the point of support. Hence if there are two weights, one heavier than the other, the heavier weight will be attached to the hanger 16 and the lighter weight to the hanger 15 and there will be a degree of balance between the two. Therefore, in use when one or both of the weights are dropped after use, the impact will be taken up by the yoke 13 and transmitted through the eye bolt 32 to the spring 49 which will yield and cushion the impact. Cushioned in this fashion, there is less likelihood of the hanger attachment to the panel being loosened and less likelihood of the remaining portions of the apparatus being broken loose or the weights such as books torn.

Moreover, by confining the spring 49 entirely within the chamber 21, as in the case of FIGURES 1 and 2, or the chamber 21', as in the case of FIGURES 3 and 4, the spring and its attachment is completely sealed and temptation to remove the yoke and the directory is substantially minimized. Also by concealing movable elements like the nut 46 and cotter pin 48 as well as the spring, only the rounded exterior of the housing projects into the phone booth from the respective panel. Since the exterior can be rounded and since the housing is kept relatively small, there will be little or nothing about it to injure a user or tear clothing even in the small space customarily encountered in such places as telephone booths. Further still if after installation on a vertical panel the need should arise to reattach the housing to a horizontal panel, or vice versa, the attachment can readily be made in the field by merely changing the position of the eye hook from one wall to another and reapplying the flanges to the appropriate panel.

While the invention has herein been shown and described in what is conceived to be the most practical and preferred embodiment, it is recognized that departures may be made therefrom within the scope of the invention, which is not to be limited to the details disclosed herein but is to be accorded the full scope of the claims so as to embrace any and all equivalent devices.

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Having described the invention, what is claimed as new in support of Letters Patent is:

1. A book supporting hanger comprising a housing having walls forming a relatively closed chamber, and a supporting flange means on said housing, one of said walls having an access opening for said chamber, one of said walls having a hole extending therethrough, an eye bolt extending slidably through the hole in said one wall into said chamber for supporting a book, a coil spring surrounding the portion of said eye bolt within said chamber and bearing at one end on the inside face of said one wall, a spring keeper secured to said eye bolt in engagement with the other end of the spring, and a yoke attached to said eye bolt intermediate opposite ends of said yoke and hangers for supporting books at the side ends of said yoke.

2. A hanger for supporting a book element on structural panels comprising a housing having two side walls, an end wall, first and second cover walls joined to said side walls at respectively opposite edges and to said end wall forming a relatively closed chamber, and supporting flange means on said housing adapted to be secured to said panel, said side walls and the second of said cover walls extending to said supporting flange means, the first of said cover walls having an access opening for said chamber adjacent said flange means, a first aperture in the first of said cover walls, a second aperture in said end wall, said apertures being adapted to slidably receive the shank of an eye bolt, an eye bolt extending slidably through one of said apertures into said chamber, a coil spring surrounding the portion of said eye bolt shank within said chamber and bearing at one end on the wall associated with the aperture receiving the eye bolt, a spring keeper removably secured to said eye bolt in engagement with the other end of the spring.

3. A hanger for supporting a book element on horizontal and vertical structural panels comprising a housing having side walls, an end wall, first and second cover walls forming a relatively closed chamber, and supporting flange means at the end opposite said end wall adapted to be secured to one of said panels, said second cover wall being continuous with said side walls and said end wall, said end wall being continuous with said first cover wall, the corners between said first cover wall and said end wall and between said second cover wall and said end wall being of relatively large radius, the first of said cover walls having an access opening for said chamber, tabs on two edges of said first cover wall adjacent said access opening inside said chamber affixed respectively to said side walls, aperture means respectively in said end wall and said first cover wall adjacent said access opening, said side walls and the second of said cover walls extending to said supporting flange means, an eye bolt extending slidably through one of said aperture means into said chamber when the supporting flange is to be attached to the vertical panel, a coil spring surrounding the portion of said eye bolt within said chamber and bearing at one end on the inside face of the wall associated with the aperture receiving the eye bolt, a spring keeper removably secured to said eye bolt in engagement with the other end of the spring, said eye bolt being removable from said one aperture means for insertion into the other aperture means when the supporting flange is to be attached to said horizontal panel.

4. A hanger for supporting a plurality of book elements on horizontal and vertical structural panels comprising a housing having side walls, an end wall, cover walls joined to said side walls at respectively opposite edges and to said end wall forming a relatively closed chamber, and supporting flanges at the end opposite said end wall adapted to be secured to one of said panels, one of said cover walls having a length less than the

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length of said side wall and forming an access opening for said chamber, holes respectively in said end wall and one of said cover walls, an eye bolt extending slidably through the hole in said one cover wall into said chamber when the supporting flange is to be attached to the vertical panel, a coil spring surrounding the portion of said eye bolt within said chamber and bearing at one end on the inside face of said one cover wall, a spring keeper removably secured to said eye bolt in engagement with the other end of the spring, said eye bolt being removable from said one cover wall for insertion in the hole of the end wall when the supporting flange is to be attached to said horizontal panel, a yoke attached to said eye bolt intermediate opposite ends of the yoke and hangers for said book elements at side ends and at unequal

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distances from said eye bolt whereby to balance book elements of unequal weights.

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