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(54) **INTERCHANGEABLE TWO-PART CURTAIN HOOK**

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(57) **ABSTRACT**

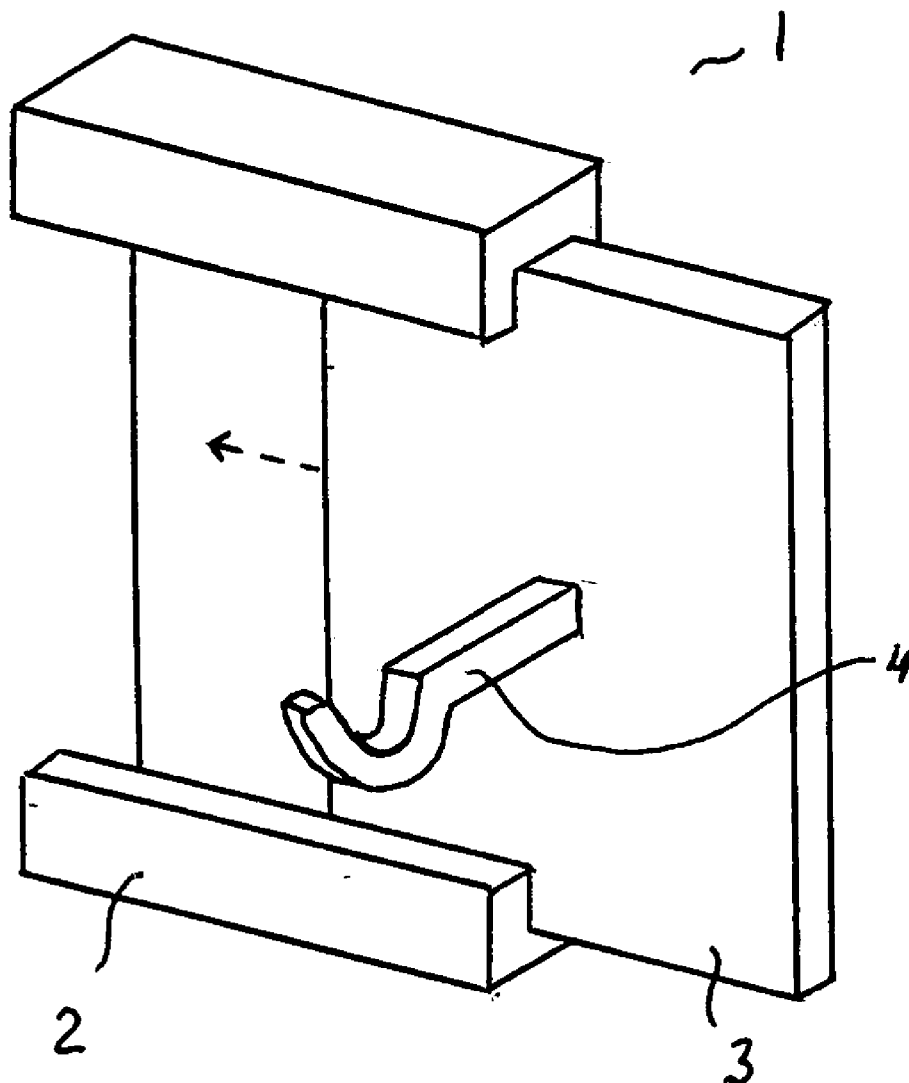
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An interchangeable fastener, such as a magnetic hook is insertable within tracks of a rectangular backing plate which has a reciprocal fastener, such as surface magnet, attached to its back side. The two-part hook, such as a curtain hook, with an adhesively attached base plate supports a removable curtain hook plate. The hook plate is made to slide horizontally into a holder which can be a section of extrusion with lips which would retain the hook plate regardless of any magnetic attraction. The base holder is adhesively bonded to any surface by a back surface with pressure sensitive adhesive which is uncovered prior to attachment by removal of a release sheet.

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Related U.S. Application Data

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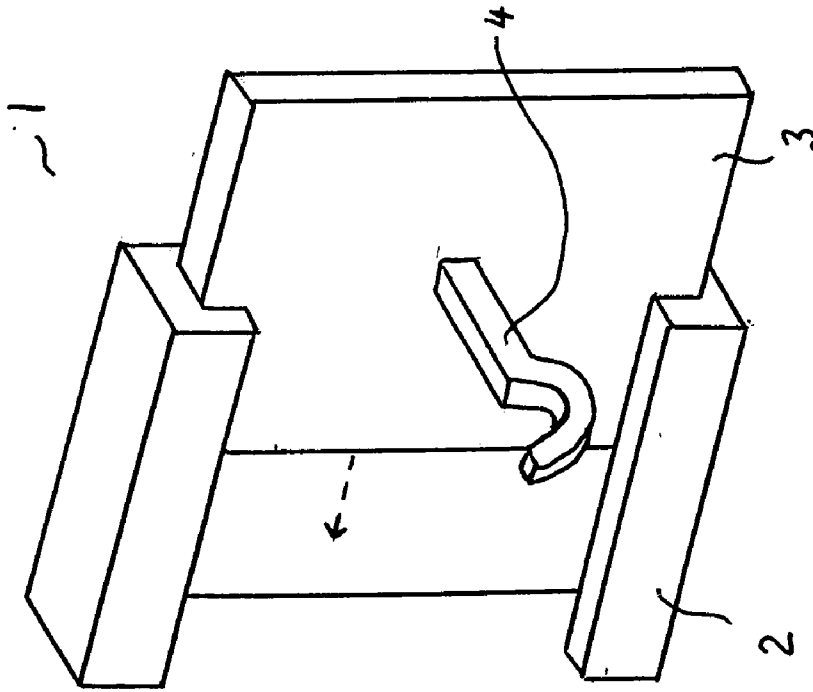


FIG. 1

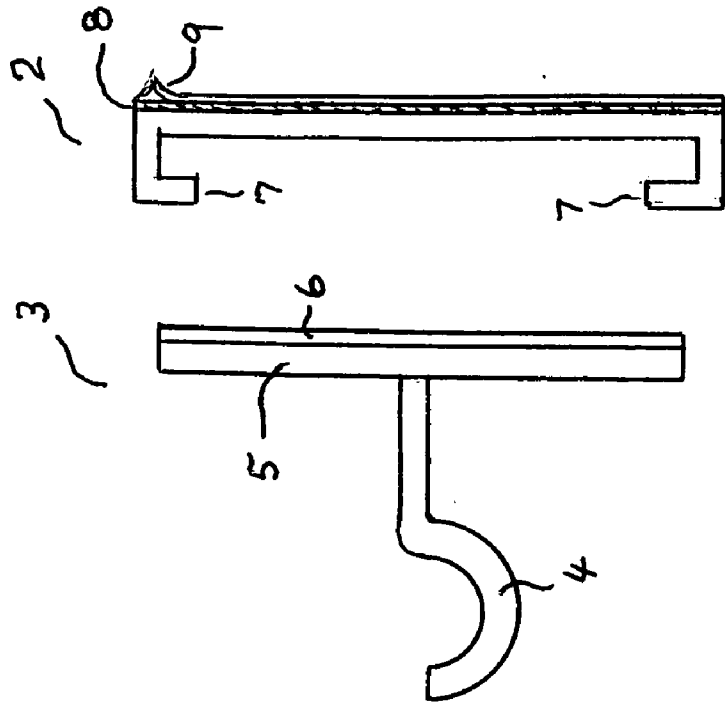


FIG. 2

FIG. 3

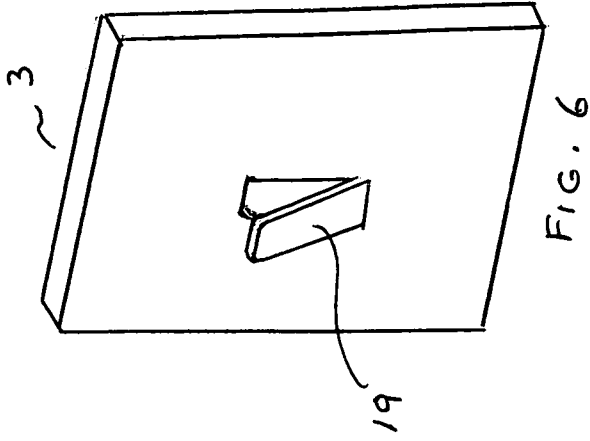


FIG. 4

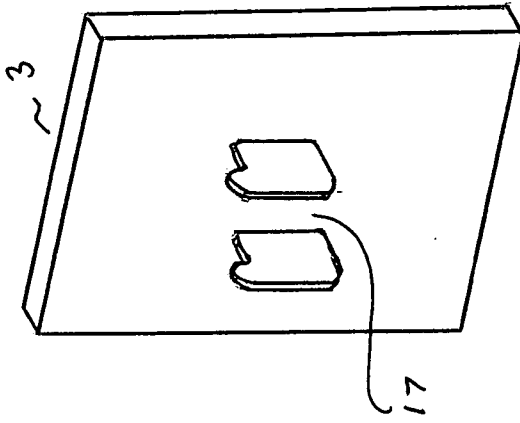


FIG. 5

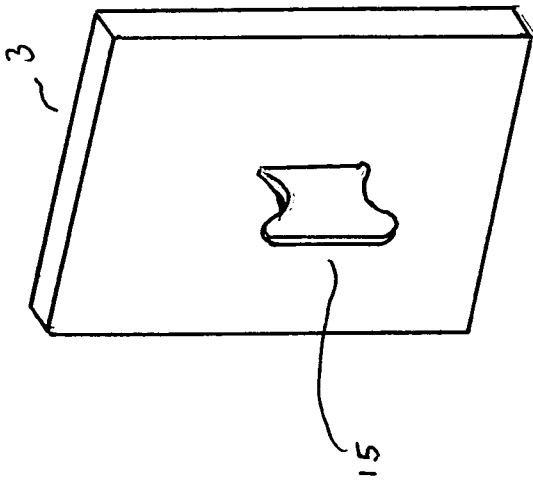


FIG. 6

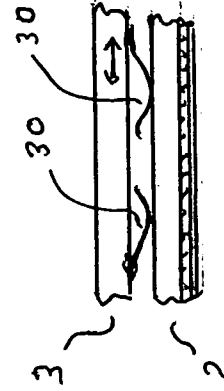


FIG. 7

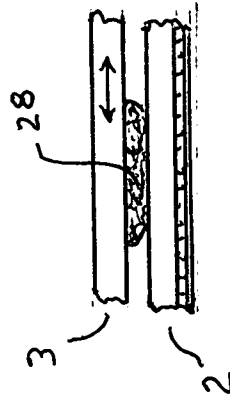


FIG. 8

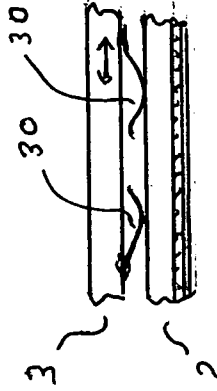


FIG. 9

INTERCHANGEABLE TWO-PART CURTAIN HOOK

FIELD OF THE INVENTION

[0001] The present invention relates to interchangeable wall-mounted hook fasteners.

BACKGROUND OF THE INVENTION

[0002] Curtains or drapes or a variety of other coverings such as blinds or shades are typical window treatments in common use. They are typically attached to the window frame or to the wall beside the window frame with using hooks of the appropriate type. The material of the surface to which the hook is attached can vary from wood to dry wall, plaster, or perhaps even marble. Even with the least problematic surface, holes are typically drilled and fasteners such as screws are used. Sometimes, special drill bits are needed, and special anchors must first be installed. The use of adhesive attachment reduces the problem if the curtain hook is pre-attached to a plate with an adhesive backing. However, if such curtain hooks are used, they are difficult to remove without attachment surface damage if a different hook is desired to change the window treatment. For example, re-decorating may dictate a change from a hook for a single curtain rod to one for a double curtain rod, or even to a holder for a drapery rod.

[0003] The prior art reveals patents related to hooks for curtains, draperies and blinds. Also, attachment methods for other uses are found. Some exemplary prior art is as follows. U.S. Pat. No. 5,398,900 of Schober shows the use of magnetic blocks forming curtain supports for ferrous wall surfaces. U.S. Pat. No. 5,520,235 of Coleman relates to a slide-in support for mini-blinds. U.S. Pat. No. 6,749,165 of Immerman relates to a variety of holder assemblies with imbedded hooks and attachment methods including suction cups, magnets and adhesives. U.S. Pat. No. 6,855,890 of Vasichek describes a method of retaining electrical wires on equipment through the use of adhesively attached magnets with retaining brackets attached to them through magnetic attraction. U.S. Pat. No. 6,155,523 of Pitre is a magnetic base holder for a window shade with removable wire hooks. U.S. Pat. No. 6,491,271 of Adams relates to a magnetic hook or clip holder for attachment to ferromagnetic surfaces with ergonomic removal features. U.S. Pat. No. 7,131,616 of Livingstone describes a screw-attached hook with magnets used for limiting the force that can be supported by the hook. U.S. Pat. No. 5,911,266 of Jacobs describes an apparatus for supporting a fabric window covering that includes a fixed support ledge and a magnetically attracted top fabric support bar.

[0004] The above prior art does not reveal a two-part curtain hook with an adhesively attached base plate supporting a removable curtain hook plate.

OBJECTS OF THE INVENTION

[0005] It is therefore an object of the present invention to provide a two-part curtain hook with an adhesively attached base plate supporting a removable curtain hook plate.

[0006] It is also an object of the present invention to provide an interchangeable fastener hook which can be applied without nails or screws.

[0007] Other objects which become apparent from the following description of the present invention.

SUMMARY OF THE INVENTION

[0008] In keeping with these objects and others which may become apparent, the curtain hook of this invention has two parts. One part is a rectangular base plate with upwardly and downwardly extending front lips and a heavy duty adhesive backing for use in easily mounting the device to any flat surface. For convenience, the adhesive layer is covered by a protective peel away release liner. The front lips form a channel at the top and bottom to accept the second part, the hook plate, by sliding in from either side. The curtain hook is permanently attached to the front of the hook plate.

[0009] Although friction between the two parts would help keep them together in use, a more positive retention method is used. In the preferred embodiment, the hook plate has a back side attached to a magnetic layer such as an adhesively bonded "rubber" flexible magnet. The base plate is composed of a ferromagnetic material such as sheet metal. When the hook plate is inserted into the base plate by sliding in within the channels formed by the front lips, this is done with some resistance which is due to the magnetic attraction; this same magnetic force between the back of the hook plate and the front surface of the base plate insures positive retention, but it also permits easy removal and replacement of the hook plate with another. In this manner, redecoration involving the use of different type curtain or drapery hooks is a simple task not requiring removal of adhesively attached hooks nor the use of fasteners such as screws.

[0010] A simple picture hanging hook of this type is also described. The two part construction is similar to the curtain hook, but a small hook to engage a picture frame wire is used on the hook plate. The two part feature could be of benefit even in a picture hook application if a hook plate with a small shelf attached instead of a hook is made available. For redecorating, the picture hook can be replaced by the shelf "hook" plate to accommodate a candle holder or narrow vase.

[0011] Other embodiments of two part curtain hooks are described in this invention. An all plastic construction is possible whereby the adhesive backed base plate is molded resin as is the hook plate with integral hook. Three methods of retention of the hook plate within the base plate are described.

[0012] One is the use of two molded close short parallel lines with semicircular crosssection protruding from the front central surface of the base plate. The hook plate has a protruding hemisphere molded in the center of the back side (which is no longer magnetic). When sliding the hook plate into the base, the hemisphere will click into place between the protruding lines of the base plate thereby retaining the two parts together by mechanical latch action.

[0013] A second method is to adhesively attach a patch of elastomeric foam to the back side of the hook plate. The patch would be sized to flatten somewhat and deform creating a controlled friction as the hook plate is inserted into the base plate.

[0014] A third method is to integrally mold leaf spring elements onto the back side of the hook plate (or the front surface of the base plate). These would deform slightly creating retention friction as the two parts are mated.

[0015] When assembled, the interchangeable two-part hook assembly includes the having upper and lower lips forming a C-shaped channel formed on a front face thereof, to allow insertion of a hook plate through the channel. Adhesive

is applied on a rear face of the base plate to mount the base plate on a vertical surface, such as a wall of a building room. The rigid hook plate is slidable into and out of the channel, allowing the hook plate to be interchanged with a different hook plate when needed. The hook plate has a hook, such as a single or double curtain hook to support drapery, or a hook to support a picture frame, mounted on a front surface thereof. A securing means is applied to a rear surface of the hook plate for securing the hook plate within the C-shaped channel on the front face of the base plate. The securing means can be that the base plate being is made of a ferro magnetic material, and a rear surface of the hook plate is coated with a flexible magnet attracted to the base plate. Optionally, the securing means can be interconnecting elements on the front face of the base plate and the rear surface of the hook plate, allowing the hook plate to click into place on the base plate. The securing means can also be an adhesively attached foam patch to create friction between the hook plate and the base plate or one or more leaf spring elements, which can be metallic or made of integrally molded plastic.

BRIEF DESCRIPTION OF THE DRAWINGS

[0016] The present invention can best be understood in connection with the accompanying drawings. It is noted that the invention is not limited to the precise embodiments shown in drawings, in which:

[0017] FIG. 1 is a perspective drawing of the two part curtain hook of this invention showing the hook plate partially inserted in the base plate;

[0018] FIG. 2 is a side elevation of the hook plate of the preferred embodiment with a drapery rod hook;

[0019] FIG. 3 is a side elevation of the base plate of the preferred embodiment showing the adhesive layer and release liner;

[0020] FIG. 4 is a perspective view of a hook plate with a curtain rod hook;

[0021] FIG. 5 is a perspective view of a hook plate with a dual curtain rod hook;

[0022] FIG. 6 is a perspective view of a hook plate with a picture hanging hook;

[0023] FIG. 7 is a side detail of an alternate embodiment using a mechanical latch engagement;

[0024] FIG. 8 is a side detail showing the use of a foam patch to increase friction between hook plate and base plate; and,

[0025] FIG. 9 is a side detail showing the use of integrally molded leaf springs to increase friction between hook plate and base plate.

DETAILED DESCRIPTION OF THE INVENTION

[0026] FIG. 1 shows two part curtain hook 1 of this invention with hook plate 3 partially inserted into base plate 2. A hook 4 to support a round drapery rod is shown.

[0027] In the preferred embodiment, base plate 3 (shown in FIG. 3) is made of a ferromagnetic material such as sheet steel. Hook plate 3 (see FIG. 2) includes a rigid plate 5 with hook 4 attached. The back surface of plate 5 is covered by a magnet 6 in the form of an adhesively attached layer of elastomeric ("rubber") flexible magnet. It can be appreciated that a magnetic force will attract hook plate 3 to base plate 2 when assembled into a unit as in FIG. 1. Note the upwardly and downwardly extending lips 7 which form a channel for

receiving hook plate 3. Also note adhesive layer 8 on the back side of base 2 which is covered by peelable release liner 9.

[0028] FIGS. 4-6 illustrate three of many possible hook options.

[0029] For example, FIG. 4 shows a hook 15 for a single flat curtain rod.

[0030] FIG. 5 shows dual hooks 17 for dual flat curtain rods.

[0031] FIG. 6 shows a picture hook 19 which can be formed from the hook plate 3 by die punching if plate 3 is metallic. Another option, a small shelf in lieu of a hook can also be offered as mentioned in the summary.

[0032] FIGS. 7-9 show details of three alternate embodiment methods of retaining hook plate 3 within base plate 2. Here the materials of both parts are assumed to be plastic with integrally molded hooks (not shown). Alternatively, metallic hooks can be attached in the molding process through insert molding.

[0033] For example, in FIG. 7, a simple latch is formed by molded protruding short lines 25 on the front of base 2 engaging the protruding hemisphere 26 of the back side of hook plate 3. The latch engages with a "click" and can be easily overcome to remove hook plate 3 when desired.

[0034] FIG. 8 shows the use of an adhesively attached foam patch 28 to create friction between hook plate 3 and base 2.

[0035] FIG. 9 shows similar action to that of FIG. 8 using integrally molded plastic leaf spring elements 30 as part of the back side of hook plate 3. Insert molded attachment of metallic leaf springs 30 is another viable alternative.

[0036] In the foregoing description, certain terms and visual depictions are used to illustrate the preferred embodiment. However, no unnecessary limitations are to be construed by the terms used or illustrations depicted, beyond what is shown in the prior art, since the terms and illustrations are exemplary only, and are not meant to limit the scope of the present invention.

[0037] It is further known that other modifications may be made to the present invention, without departing the scope of the invention, as noted in the appended Claims.

I claim:

1. An interchangeable two-part hook assembly comprising:

a base plate having upper and lower lips forming a channel formed on a front face thereof allowing insertion of a hook plate through said channel;

adhesive on a rear face of said base plate for mounting said base plate on a vertical surface;

said rigid hook plate slidable into and out of said channel, allowing said hook plate to be interchanged with a different hook plate;

said hook plate having a hook mounted on a front surface thereof; and

means on a rear surface of said hook plate for securing said hook plate within said channel on said front face of said base plate.

2. The hook assembly of claim 1 in which said channel formed by upper and lower lips on the front face of said base plate is C-shaped.

3. The hook assembly of claim 2 in which said hook is a single curtain hook shaped to support a drapery rod.

4. The hook assembly of claim 2 in which said hook is a double curtain hook shaped to support a drapery rod.

5. The hook assembly of claim 2 in which said hook is a picture frame hook.

6. The hook assembly of claim 2 in which said securing means comprises said base plate being made of a ferro-magnetic material, and a rear surface of said hook plate being coated with a flexible magnet.

7. The hook assembly of claim 2 in which said securing means comprises interconnecting elements on the front face of said base plate and the rear surface of said hook plate, allowing said hook plate to click into place on said base plate.

8. The hook assembly of claim 2 in which said securing means comprises an adhesively attached foam patch to create friction between the hook plate and said base plate.

9. The hook assembly of claim 2 in which said securing means comprises leaf spring elements.

10. The hook assembly of claim 9 in which said leaf spring elements are made of integrally molded plastic.

11. The hook assembly of claim 9 in which said leaf spring elements are made of metallic material.

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