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(54) **WINDOW UNIT INSTALLATION SAFETY DEVICE FOR SUPPORTING A WINDOW UNIT IN PLACE DURING INSTALLATION**

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(57) **ABSTRACT**

A window unit installation safety device is disclosed for supporting a window unit in place in a rough opening during window unit installation. The window unit installation device is securable onto the window unit and is configured to safely and retentively support the window unit in a framed rough opening, such as a framed sidewall of a residential or commercial building. The window unit installation device includes a plurality of spaced legs configured to be received over a window nail fin. The device is equipped with a molly sized to hold a nail in position in a hole in position in the window unit installation device prior to and during temporary nailing of the window unit installation device to framing

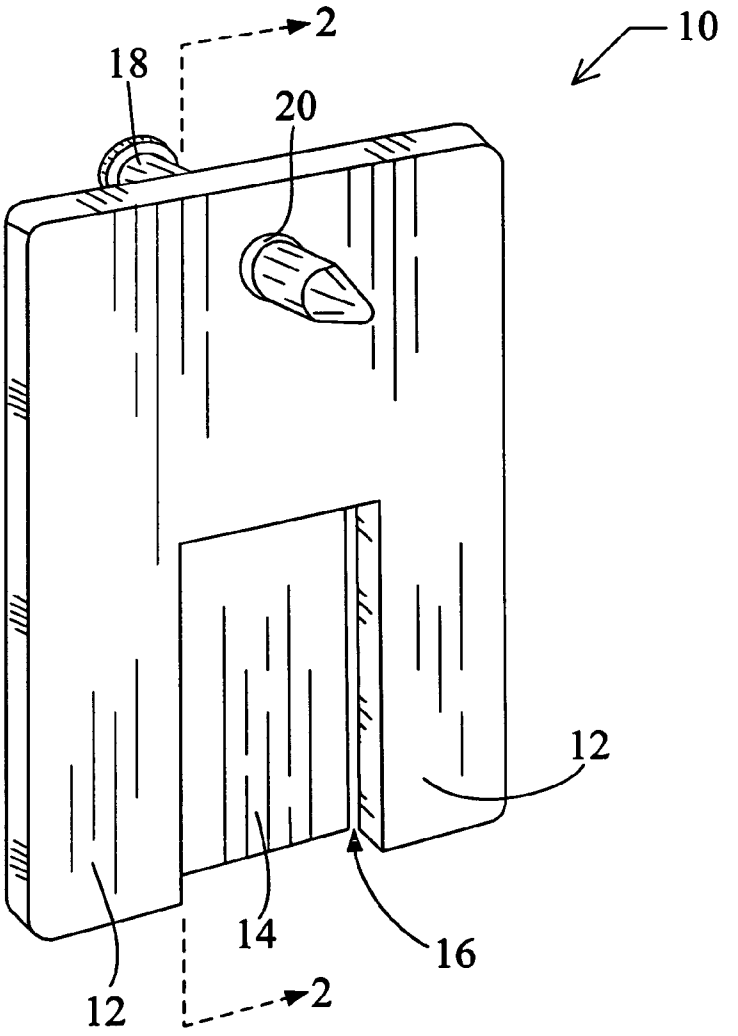


FIG. 1

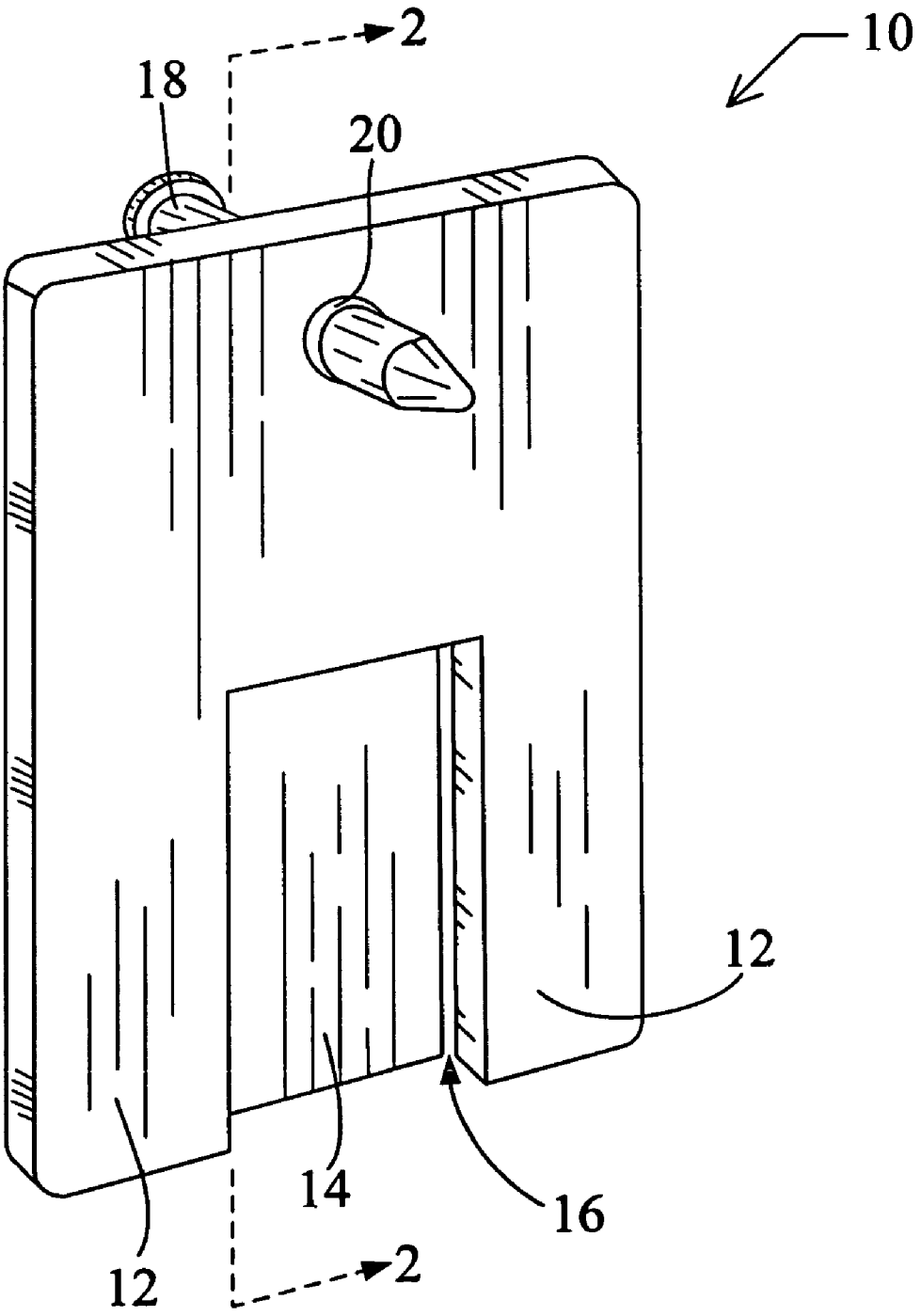


FIG. 2

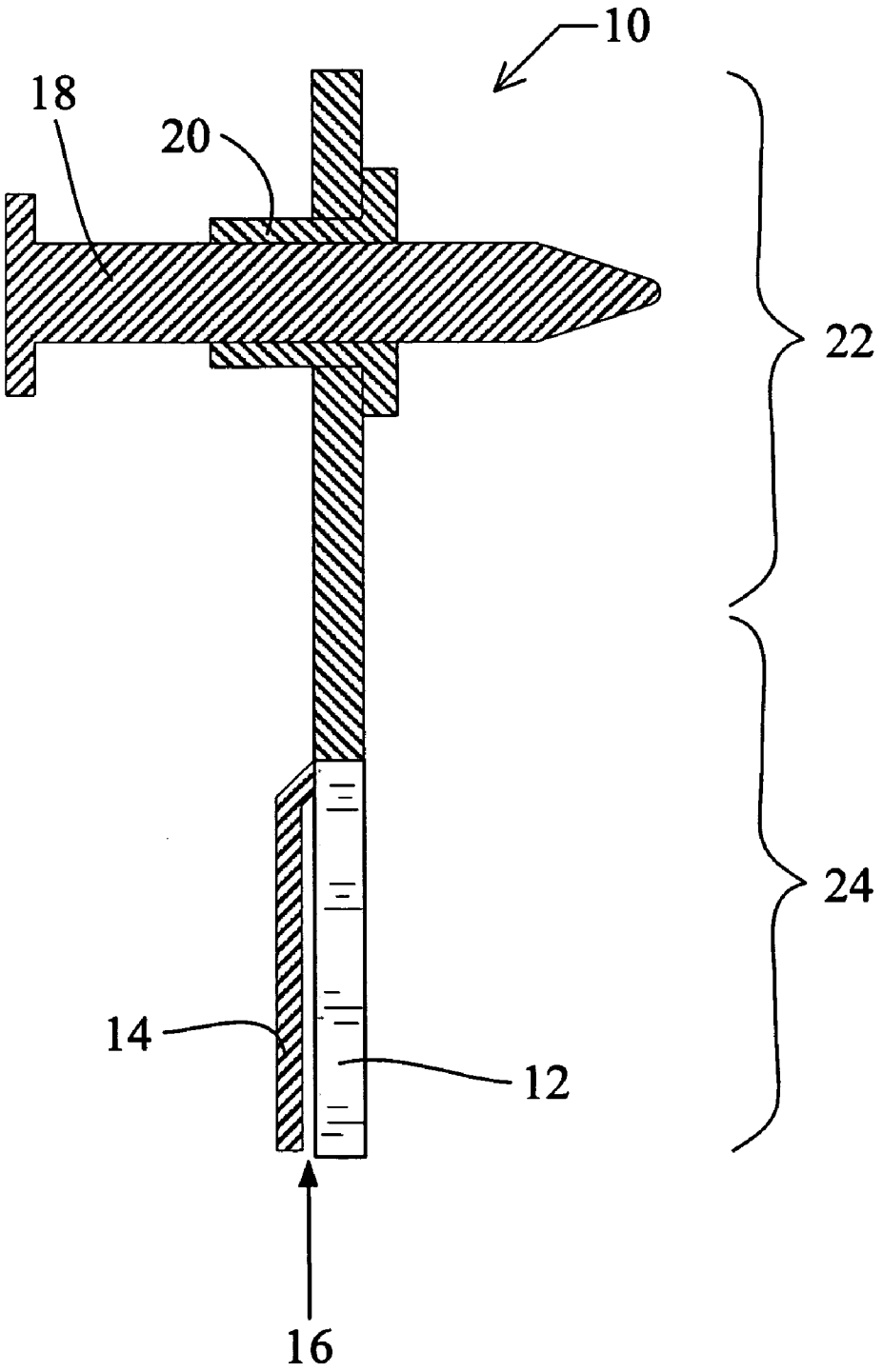


FIG. 3

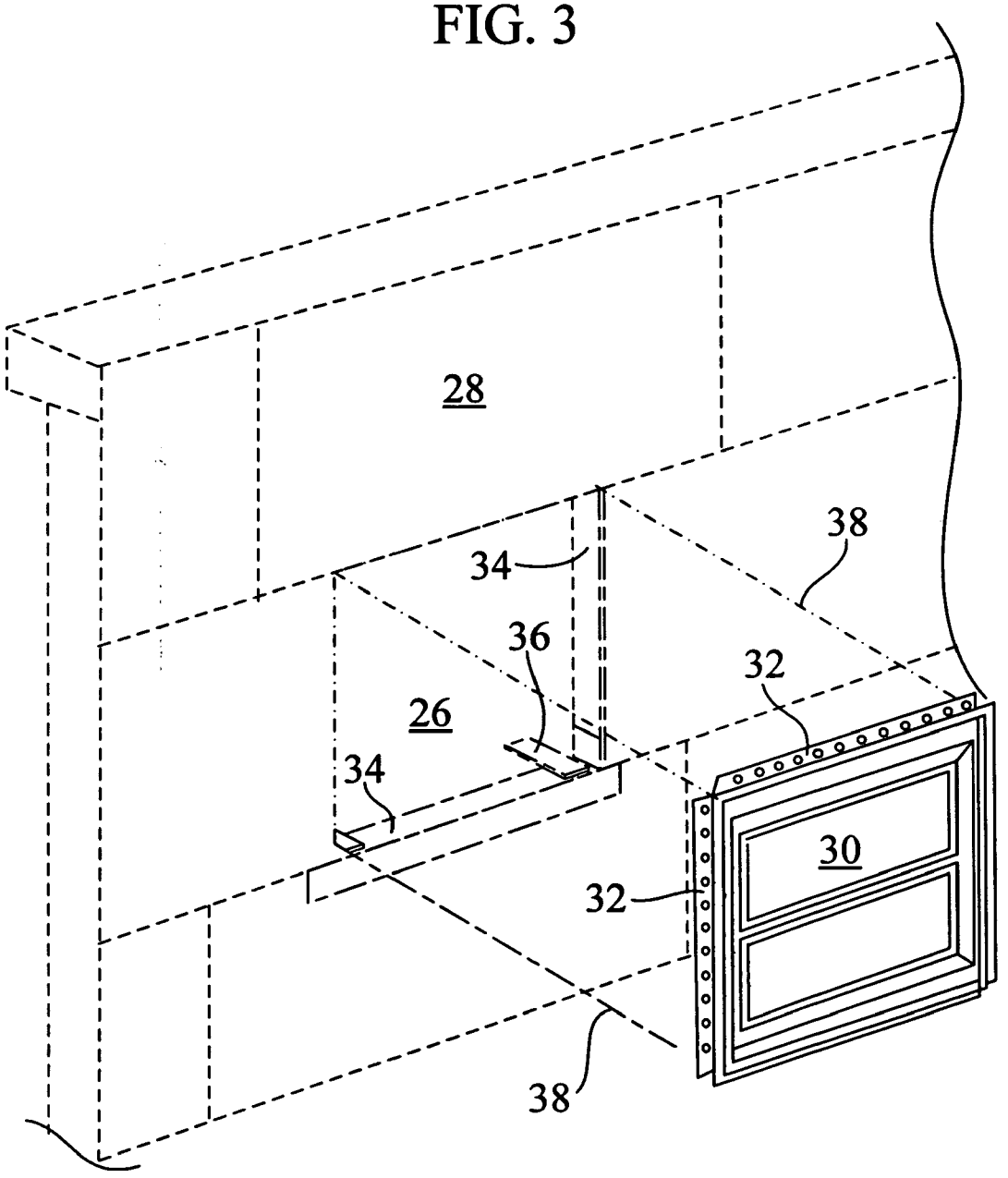
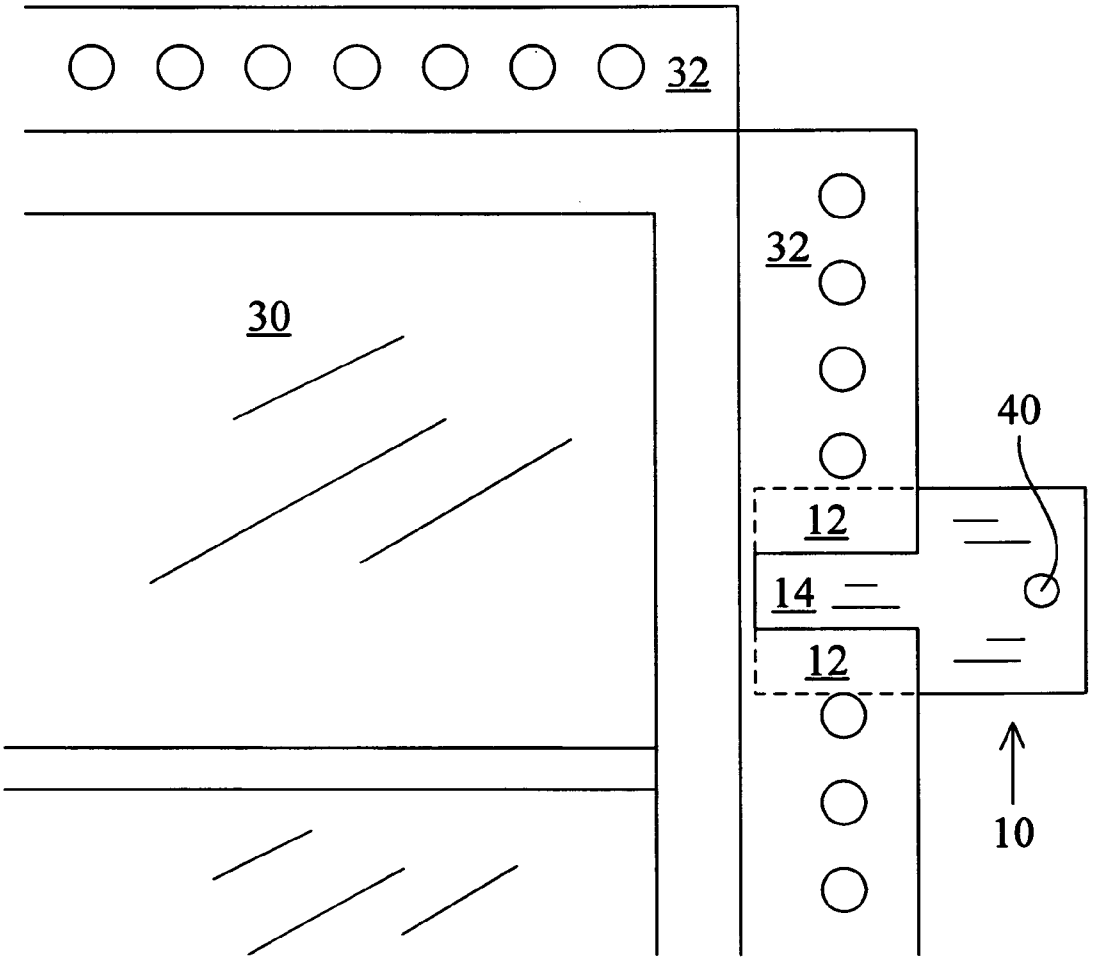


FIG. 4



WINDOW UNIT INSTALLATION SAFETY DEVICE FOR SUPPORTING A WINDOW UNIT IN PLACE DURING INSTALLATION

FIELD OF THE DISCLOSURE

[0001] The disclosures made herein relate to tools and methods for installing manufactured windows into a building structure and, in particular, to tools and devices for safely supporting a manufactured framed window in a rough window opening during window unit installation.

BACKGROUND

[0002] Manufactured window units are utilized in the vast majority of construction projects, both residential and commercial. Such windows are available in a plurality of catalog or stock sizes to fit standard sized rough window openings. The installation of new or replacement windows is generally performed by licensed builders and professional window hangers or installers. The installation of a window normally involves lifting the often heavy and awkward window unit into alignment for insertion into the rough framed window opening and then proceeding to work the window into the rough opening. This procedure is often difficult and unsafe, particularly when performed at elevated heights from a ladder or scaffolding or when the window unit is heavy or large. Additionally, the task of installing a window unit is hazardous and of risk to life and health, for example if the craftsmen installing the window unit should lose their grip on the window and the window unit falls, especially when the work is performed on multistory buildings.

[0003] Another problem arises when installing window units into a rough opening in a framed sidewall. Once the window unit is placed in the rough opening it must be maneuvered and worked into proper position by a process of lifting, shimming, measuring and leveling. Installing a window unit typically requires a team effort of at least two people, one on the outside of the structure to strong arm the window unit into the rough opening, and eventually nail the window in place, and a person on the inside to shim and level the window. The procedures to properly position and secure a window to the rough framing require manual dexterity in the use of the hands. This task becomes substantially more difficult and dangerously unsafe when an installer must use one hand solely to hold the window in place in the rough opening, preventing the window unit from falling out of the rough opening while attempting to nail the window unit nail fin to the rough framing.

[0004] There remains a need in the art for a window unit installation device that is configured to support a window unit safely in place in the rough opening during installation, while still permitting the window unit to be slid side to side, raised, lowered, leveled, shimmed and otherwise worked into proper position in the rough opening by the installer.

SUMMARY OF THE DISCLOSURE

[0005] Accordingly, embodiments of the inventive disclosures made herein comprise embodiments of a window unit installation device for supporting a window unit in place during window unit installation into a rough opening. The window installation device is securable onto the window unit and is configured to support the window unit in a framed rough opening, such as a framed sidewall of a residential or commercial building, during window positioning and final installation.

[0006] In one or more embodiments of the inventive disclosures made herein, the window unit installation device for supporting a window unit in place during installation includes a substantially flat rectangular body provided with a hole through the body. The body of the window unit installation device includes an upper portion with an attachment hole provided in the upper portion of the body and a lower portion having a plurality of substantially parallel slits. The slits open through a lower edge of the lower portion of the body with the slits dividing the lower portion into a plurality of spaced legs. A tubular plastic molly is received through the hole in the upper portion of the body; the molly includes a cylindrical void extending through a central portion of the molly. The cylindrical void through the molly is sized to receive a nail for securing the molly and the window installation device to the framing about the window opening. The legs of the window unit installation device are sized and adapted so as to be supportively received onto an edge of a nail fin of the window unit. In general, but not by way of limitation, a minimum of four window unit support devices are typically used to support the window unit in the rough opening, generally at least two positioned along each of the side nail fins of the window unit. To install the window unit installation device on a window unit, the legs of the window unit installation device are pushed against and inserted over the outside edge of the nail fin of the window unit. The legs and slots of the window unit installation device are sized and adapted to supportively grip the nail fin in the slots between the spaced legs so as to support the window frame in a rough window opening during installation of the window. The window unit installation device then supports the window unit in the rough opening, preventing the window unit from falling out of the opening, while the installer works to shim, level, and position the window unit in the opening prior to final nailing the nail fin to the rough opening framing.

[0007] In one or more embodiments of the inventive disclosures made herein, the window unit installation device is configured to safely support the window unit in the framed opening by use of a nail or screw driven through the window unit installation device into the framing. The use of a screw is preferred for use with structures using metal framing.

[0008] In one or more embodiments of the inventive disclosures made herein, the window unit installation device is secured to the window unit by slidably mounting onto the nail fin of the window unit, whereby the window unit installation device supports the window in the window opening by the nail fin.

[0009] In another embodiment of the inventive disclosures herein, the window unit installation device is provided with two slots separating three legs with the legs sized and configured for slideably securing the device onto the nail fin of a window unit.

[0010] In another embodiment of the inventive disclosures herein, the window unit installation device has a hole through the upper portion which is sized to frictionally retain the molly in the hole, and the molly has a void therethrough sized to frictionally retain the nail or screw within the molly so as to hold the nail in position in the body of the window unit installation device in preparation for driving the nail or screw into the window opening framing. This feature eliminates the need for the installer to hold the window unit in position while

driving nails or screws through the window unit nail fin and into the window rough framing, thereby freeing the use of one hand for other tasks.

[0011] In another embodiment of the inventive disclosures herein, the window unit installation device is made of metal.

[0012] In another embodiment of the inventive disclosures herein, the window unit installation device is made of plastic.

[0013] These and other objects of the invention made herein will become readily apparent upon further review of the following specification and associated drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

[0014] The drawings show a form of the invention that is presently preferred, however, the invention is not limited to the precise arrangement shown in the drawings.

[0015] FIG. **1** depicts a rear perspective view of a window unit installation device in accordance with the inventive disclosures herein.

[0016] FIG. **2** depicts a sectional view along section lines **2-2** of FIG. **1** showing the nail and molly received into the hole in the upper body of the window unit installation device and the position of the middle leg extending towards the front side of the window unit installation device.

[0017] FIG. **3** depicts a rough window opening in a sidewall of a structure together with a window unit to be mounted into the window opening.

[0018] FIG. **4** depicts a front view of the window installation device installed onto a nail fin of a window unit.

DETAILED DESCRIPTION OF THE DRAWINGS

[0019] In preparation for explaining the details of the present inventive disclosure, it is to be understood by the reader that the invention is not limited to the presented details of the construction, materials and embodiments as illustrated in the accompanying drawings, as the invention concepts are clearly capable of other embodiments and of being practiced and realized in various ways by applying the disclosure presented herein.

[0020] Turning now to FIG. **1**.

[0021] FIG. **1** depicts a rear perspective view of a window unit installation device **10** in accordance with the inventive disclosures herein. The window unit installation device **10** includes two side legs **12** and a middle leg **14** separated by two slits **16** (only one slit visible in FIG. **1**), the legs **12**, **14** and slits **16** are sized and positioned to be received over a window nail fin (shown in FIG. **4**). A nail **18** is received through a plastic molly **20** inserted through a hole in the window unit installation device **10**.

[0022] Turning now to FIG. **2**.

[0023] FIG. **2** depicts a sectional view along section lines **2-2** of FIG. **1** showing the nail **18** and plastic molly **20** received through the hole in the upper body **22** of the window unit installation device **10**. The lower body **24** of the window unit installation device **10** has two side legs **12** (only one visible in this view) with a middle leg **14** positioned between the side legs **12**. The middle leg **14** is offset towards the front side (see illustration in FIG. **4**) of the window unit installation device **10**.

[0024] Turning now to FIG. **3**.

[0025] FIG. **3** depicts a rough window opening **26** in a sidewall **28** of a structure together with a window unit **30** to be mounted into the window opening **26**. The window unit includes nail fins **32** secured onto sides of the window unit **30**, the nail fins **32** configured for securing the window unit **30** into the rough window opening **26**. Portions of the framing **34** surrounding the rough window opening **26** are visible in FIG. **3**. For illustrative purposes, one shim **36** is depicted. It is to be understood that multiple shims **36** may be required to position the window unit **30** within the rough opening **26**. Dashed lines **38** illustrate how the window unit **30** may be transitioned into the rough opening **26** for installation.

[0026] Turning now to FIG. **4**.

[0027] FIG. **4** depicts a front view of the window installation device **10** installed onto a nail fin **32** of a window unit **30**. The middle leg **14** of the window unit installation device **10** extends over the front of the nail fin **32** with the side legs **12** (see FIG. **1**) positioned about a rear portion of the nail fin **32** so as to compressibly hold the nail fin between the legs **12** and **14**. The window unit installation device **10** includes a hole for receiving a molly **20** and nail **18** (both shown on FIG. **1**) therein.

[0028] During window unit installation, typically four or more window installation devices **10** are installed onto the nail fin **32** of the window unit **30** to temporarily support the window unit **30** in place in the rough opening **26** (see FIG. **3**) during installation while still permitting the window unit **30** to be positioned side to side, raised, lowered and otherwise worked into proper position in the rough opening **26** by the installer.

[0029] The discussed construction, illustrations and sequence of operation are for one embodiment of the invention, but is in no way limiting to other embodiments. The operating modes may be changed and enhanced without deviating from the intention of this inventive disclosure.

[0030] In the preceding detailed description, reference has been made to the accompanying drawings that form a part hereof, and in which are shown by way of illustration specific embodiments in which the invention may be practiced. These embodiments and certain variants thereof have been described in sufficient detail to enable those skilled in the art to practice the invention. It is to be understood that other suitable embodiments may be utilized and that logical, material, and mechanical changes may be made without departing from the spirit or scope of the invention. To avoid unnecessary detail, the description omits certain information known to those skilled in the art. The preceding detailed description is, therefore, not intended to be limited to the specific forms set forth herein, but on the contrary, it is intended to cover such alternatives, modifications, and equivalents, as can be reasonably included within the spirit and scope of the appended claims.

What is claimed is:

1. A window unit hanging device for safely supporting a window unit in place during window unit installation into a rough opening, the device securable to the window unit and configured to support and retain the window unit in a framed rough opening.

2. The window unit hanging device of claim **1**, wherein the window unit hanging device supports the window unit in the framed opening by use a nail driven through the window unit hanging device into framing surrounding the rough opening.

3. The window unit hanging device of claim **1**, wherein the device is secured to the window unit by slideably mounting onto a nail fin of the window unit.

4. A window unit installation safety device for supporting a window unit in place during installation into a rough opening, the window having a nail fin, the window installation device comprising:

a substantially flat rectangular body having a hole, the body comprising:

an upper portion with said hole through said upper portion; and

a lower portion having a plurality of substantially parallel slits opening through a lower edge of said lower portion, the slits dividing the lower portion into a plurality of spaced legs;

a tubular plastic molly received into said hole of said body, said molly having a cylindrical void through a central portion of the molly, and

a nail received into said molly, the nail for securing said window installation device to window opening framing;

wherein said legs are sized and adapted to be supportively received onto an edge of a window nail fin;

wherein said legs are positioned to be received over an outside edge of the nail fin of the window, said legs and slots are sized and adapted to supportively grip the nail fin so as to temporarily support the window frame in a rough window opening during installation of the window.

5. The window installation device of claim **4**, wherein said plurality of slots is two slots and wherein said plurality of legs is three legs.

6. The window installation device of claim **5**, wherein said nail is frictionally retained in said molly, holding said nail in position in said body in preparation for driving of said nail into the window opening framing.

7. The window installation device of claim **6**, wherein said body comprises metal.

8. The window installation device of claim **6**, wherein said body comprises plastic.

9. A window unit installation safety device for supporting a window unit in place during installation into a rough opening, the window having a nail fin, the window installation device comprising:

a substantially flat rectangular body having a hole, the body comprising:

an upper portion with said hole through said upper portion; and

a lower portion having a plurality of substantially parallel slits opening through a lower edge of said lower portion, the slits dividing the lower portion into a plurality of spaced legs;

a tubular plastic molly received into said hole of said body, said molly having a cylindrical void through a central portion of the molly; and

a screw received into said molly, the screw for securing said window installation device to window opening framing;

wherein said legs are sized and adapted to be supportively received onto an edge of a window nail fin;

wherein said legs are positioned to be received over an outside edge of the nail fin of the window, said legs and slots are sized and adapted to supportively grip the nail fin so as to temporarily support the window frame in a rough window opening during installation of the window.

10. The window installation device of claim **9**, wherein said plurality of slots is two slots and wherein said plurality of legs is three legs.

11. The window installation device of claim **9**, wherein said screw is frictionally retained in said molly, holding said screw in position in said body in preparation for driving of said screw into the window opening framing.

12. The window installation device of claim **11**, wherein said body comprises metal.

13. The window installation device of claim **11**, wherein said body comprises plastic.

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