

PATENT SPECIFICATION

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- (21) Application No. 1596/77 (22) Filed 14 Jan. 1977
(31) Convention Application No. 51/003 875U (32) Filed 16 Jan. 1976 in
(33) Japan (JP)
(44) Complete Specification published 28 June 1978
(51) INT. CL.² E04B 7/00
(52) Index at acceptance
E1W 4B2 4B90

(19)



(54) PENTHOUSE ASSEMBLY

- (71) We, YOSHIDA KOGYO K.K., a corporation duly organized under the laws of Japan and existing at No. 1, Kanda Izumi-cho, Chiyoda-ku, Tokyo, Japan, do hereby declare the invention, for which we pray that a patent may be granted to us, and the method by which it is to be performed, to be particularly described in and by the following statement:—
- 10 The present invention relates to a hood or canopy assembly, hereinafter referred to as a penthouse assembly for attachment to a building wall and used as a hood over a window or door.
- 15 Penthouses or projecting hoods mounted over windows or doors to protect them from rain are generally made of wood and roofed with metal boards. Construction of the conventional penthouses requires the cutting, shaping and assembling of wood and metal materials on the job site, and therefore is tedious and time-consuming.
- 20 The present invention seeks to provide a penthouse assembly having a projecting hood formed of an extrusion.
- 25 The invention further seeks to provide a penthouse assembly having means for attaching the projection hood easily and reliably to a building.
- 30 According to the invention, there is provided a hood or canopy assembly comprising a hood member formed of a single hollow extrusion with a vertical mounting fin along one edge thereof and an L-shaped attachment member for attachment by one arm to the hood member and for attachment by the other arm to a building structure.
- 35 Further according to the invention, there is provided a penthouse assembly for attachment to a building frame above a window or door, comprising: an overhanging hood made of a single hollow extrusion having an extended length, said overhanging hood including a vertical mounting fin on and along one edge thereof; and an L-shaped attachment bracket having horizontal and vertical legs, said vertical leg being fixed to said vertical mounting fin, and said horizontal leg being adapted to be fixed to the building frame.
- 50 The invention will now be described in greater detail, by way of example, with reference to the drawings, in which:—
- 55 Figure 1 is a vertical cross-sectional view of a penthouse assembly constructed in accordance with the invention, the assembly being attached to a wooden building framework;
- 60 Figure 2 is an enlarged perspective view of the penthouse assembly shown in Figure 1; and
- 65 Figure 3 is a vertical cross-sectional view of a penthouse assembly provided in accordance with another embodiment, the assembly being attached to a concrete building wall.
- 70 In Figures 1 and 2, a penthouse assembly generally designated at 10 is attached to wooden building frames such as a head 11 and a stud 12 on the head 11, the head 11 cooperating with an unshown sill and an unshown pair of side jambs in bounding a rough opening 13 in which a window unit 14 is mounted. The window unit 14 includes a window frame having a head 15 fixed to the wooden head 11 by means of nails 16, and a pair of window sashes 17, 18 horizontally slidable in closely spaced planes along a pair of guide flanges 19, 20, respectively, on the window head 15.
- 75 The penthouse assembly 10 generally comprises a projecting hood or overhanging structure 21 protruding outwardly from the building, and an attachment member 22 secured to the wooden head 11 and supporting the projecting hood 21. The hood 21 is a single hollow aluminum extrusion having an extended length corresponding to the width of the window opening.
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ponding at least to the width of the window unit 14. The hood 21 comprises a pair of spaced top and bottom plates 23, 24, a vertical mounting fin 25 on and along their inner edges, and a drip flange 26 on and along their outer or distal edges. The top plate 23 is sloped downwardly toward the outer edge. The mounting fin 25 has a pair of upper and lower nailing margins 27, 28 extending upwardly beyond the top plate 23 and downwardly beyond the bottom plate 24, respectively. A plurality of parallel rims 29 are formed on the surface of the mounting fin 25 that faces away from the plates 23, 24, the rims 29 extending along the length of the mounting fin 25. A medial web of the mounting fin 25 which extends between the top and bottom plates 23, 24 is formed with a plurality of paired raised portions 30 spaced along the length of the fin 25, the raised portions 30 having tapped holes 31 therethrough. The extruded hood 21 is provided with a plurality of integral sockets 32 for the reception of screws that affix side coverings to the ends of the hood 21.

The attachment member 22 is in the form of an L-shaped bracket. A first or horizontal leg 33 has a pair of apertures 34 for the passage therethrough of screws 35, and a second or vertical leg 36 has a pair of parallel vertical slots 37 spaced widthwise of the bracket 22. The spacing between the slots 37 is made equal to the spacing between any paired tapped holes 31 in the mounting fin 25 so as to provide alignment of the slots 37 with the tapped holes 31.

To install the penthouse assembly 10 on the building, a plurality of the attachment brackets 22 are fastened by the screws 15 to the head 11 at spaced intervals along the latter. The horizontal legs 33 of the brackets 22 are positioned so as to cause the vertical legs 36 of the brackets 22 to lie as flush with the outer face of the head 11 as possible. Then, the hood 21 is fixed to the brackets 22 by screws 38 extending through the slots 37 threadedly into the tapped holes 31. Vertical adjustment of the hood 21 to accommodate a variety of thicknesses of the head 11 can be made by shifting the screws 38 along the slots 37, and tightening the screws 38 at desired positions. The upper margin 27 of the mounting fin 25 is fixed to the stud 12 by means of nails shown as at 39, and the lower margin 28 of the mounting fin 25 is fixed to the head 11 by means of nails shown as at 40, thereby providing added support for the hood 21. The rims 29 are held forcibly against the outer surfaces of the vertical arms 36 and the outer surface of a flange of the attached window head 15, and can mount the hood 21 stably in

place if the vertical legs 36 of the brackets 22 are out of alignment with the outer face of the head 11. The rims 29 also serve to add increased rigidity to the mounting fin 25. After installation of the penthouse assembly 10, the building frames are furnished with an exterior wall 41 of mortar and an interior wall 42 of a suitable decoration board in order to conceal the attachment brackets 22 from external view.

According to another embodiment illustrated in Figure 3, a penthouse assembly 45 can be attached to a concrete building wall 46. The penthouse assembly 45 generally comprises a projecting hood 47 formed of extruded aluminum, and an attachment unit 48 anchored to the concrete wall 46. The extruded hood 47 is a hollow structure having a vertical mounting fin 49 on and along its inner edge. The mounting fin 49 has an upper margin 50 extending upwardly beyond the sloped top plate 51, the upper margin 50 being provided with a channel 52 that opens away from the top plate 51 and extends along the upper margin 50. Fitted in the channel 52 is an insert 53 that is retained in and slidable along the channel 52. A first welding arm 54 is drawn out of the insert 53 and is directed away from the hood 47.

The attachment unit 48 comprises the insert 53, an L-shaped bracket 55, and a pair of T-shaped anchors 56, 57. The bracket 55 has a horizontal leg 58 with a pair of tapped apertures 59 therethrough, and a vertical leg 60 with a vertical slot 61 therethrough. A window frame includes a head 62 which is to be secured to the horizontal leg 58 of the bracket 55 by means of screws 63 threaded into the tapped holes 59. A second welding arm 64 is drawn out of the horizontal leg 58 and is directed away from the head 62 of the window frame.

When the penthouse assembly 45 is to be installed, a plurality of the paired anchors 56, 57 are embedded in the concrete building wall 46, the pairs of the anchors 56, 57 being spaced apart along the width of an opening in which the window frame is to be mounted. The anchors 56 have their distal ends 65 projecting outwardly, and the anchors 57 have their distal ends 66 projecting downwardly. A plurality of the brackets 55 are fixed to the hood 47 by means of screws shown as at 67, the brackets 55 being located at spaced intervals along the mounting fin 49. The channel 52 is equipped with a plurality of the inserts 53 that are positioned at locations spaced along the length of the channel 52. The hood 47 and bracket 55 thus assembled together are affixed to the building wall 46 by welding the arms 54, 64 to the distal ends 65, 66 of the anchors

56, 57, respectively. Finally, the head 62 of the window frame is screwed to the horizontal legs 58 of the brackets 55. The concrete wall 46 is finished with exterior coverings of mortar, which also fill up the space between the concrete wall 46 and the brackets 55 and inserts 53.

WHAT WE CLAIM IS:—

1. A penthouse assembly for attachment to a building frame above a window or door, comprising: an overhanging hood made of a single hollow extrusion having an extended length, the overhanging hood including a vertical mounting fin on and along one edge thereof; and an L-shaped attachment bracket having horizontal and vertical legs, the vertical leg being fixed to the vertical mounting fin, and the horizontal leg being adapted to be fixed to the building frame.

2. A penthouse assembly according to claim 1, wherein the vertical leg has a vertical slot, and the mounting fin has a tapped hole therein, a screw passing through the slot threadedly into the tapped hole.

3. A penthouse assembly according to either one of claims 1 and 2, wherein the horizontal leg has an aperture for the passage therethrough of a screw.

4. A penthouse assembly according to any one of claims 1 to 3 wherein the mounting fin includes a pair of upper and lower nailing margins for nailing to the building frame.

5. A penthouse assembly according to any one of claims 1 to 4, and further including a pair of anchors to be embedded in the building frame, and a pair of welding arms extending from the mounting fin and the horizontal leg, respectively, the anchors being welded to the welding arms.

6. A penthouse assembly substantially as herein described with reference to the drawings.

7. A hood or canopy assembly comprising a hood member formed of a single hollow extrusion with a vertical mounting fin along one edge thereof and an L-shaped attachment member for attachment by one arm to the hood member and for attachment by the other arm to a building structure.

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