May 13, 1958 P. B. MIMS 2,834,441

WINDOW CONSERVATORY

Filed Dec. 31, 1954 3 Sheets-Sheet 1

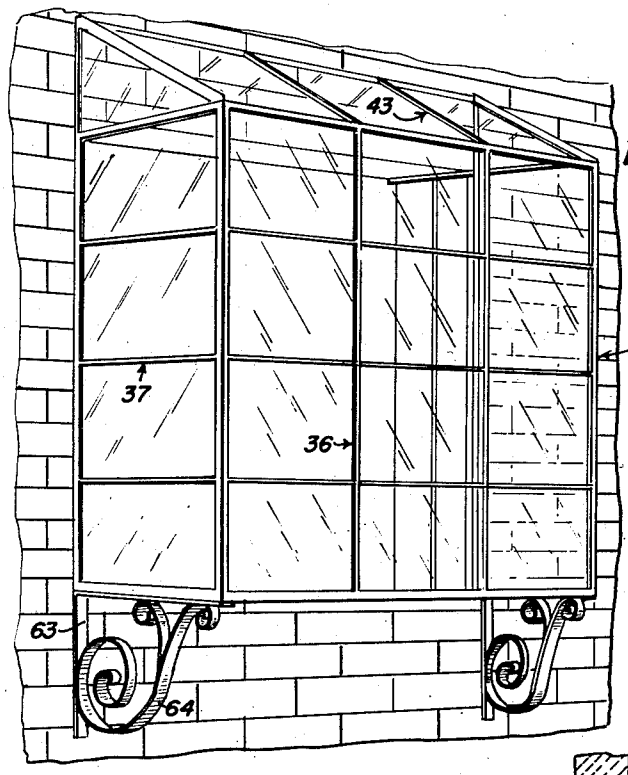


FIG. 1

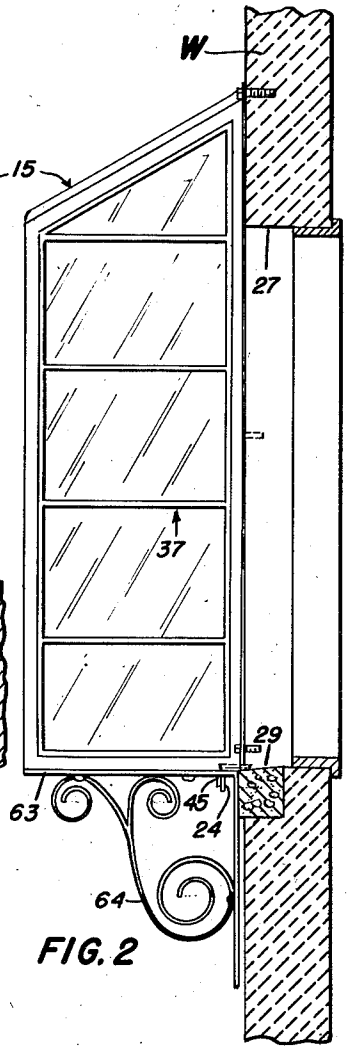


FIG. 2

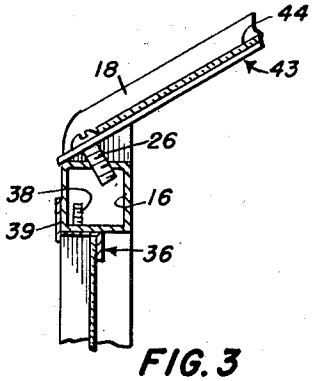


FIG. 3

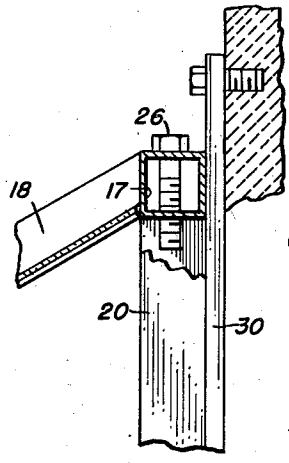
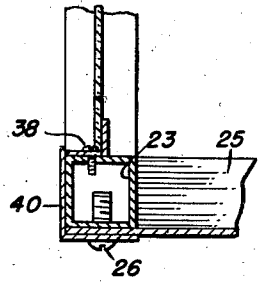


FIG. 4



INVENTOR

PHILIP B. MIMS

BY Raymond N. Matson

ATTORNEY

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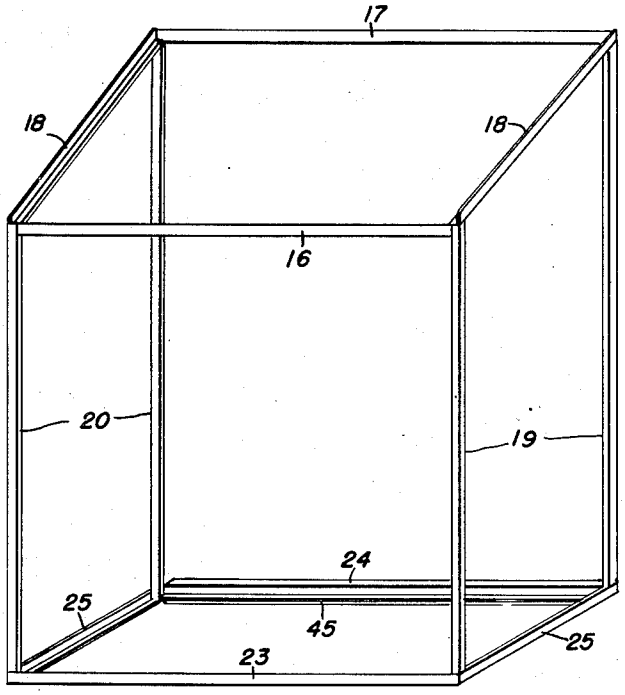


FIG. 5

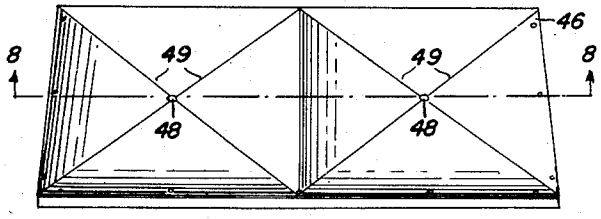


FIG. 6

INVENTOR

PHILIP B. MIMS

BY Raymond N. Matson

ATTORNEY

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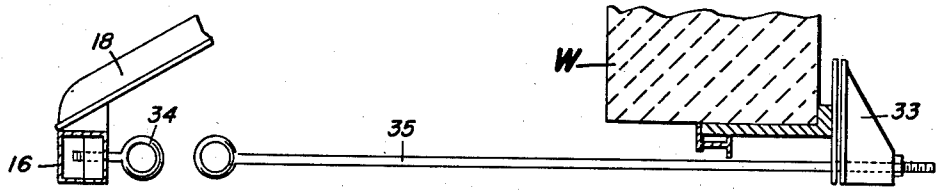


FIG. 7

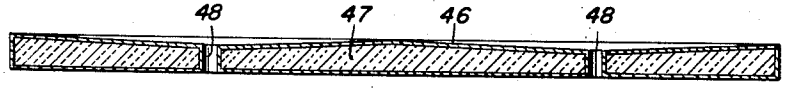


FIG. 8

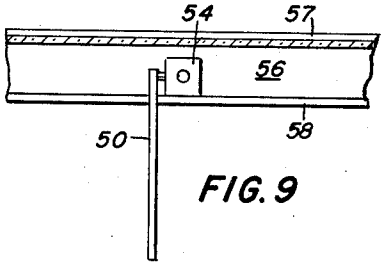


FIG. 9

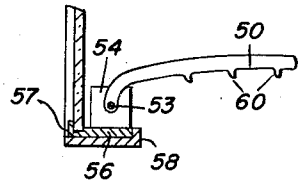


FIG. 10

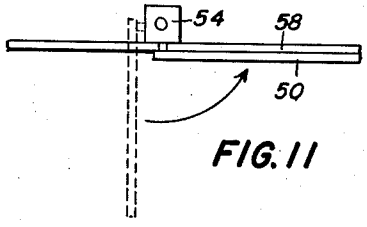


FIG. 11

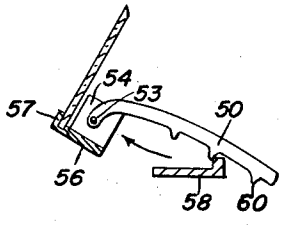


FIG. 13

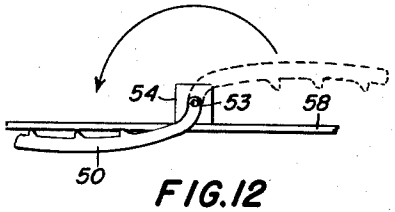


FIG. 12

INVENTOR
PHILIP B. MIMS

BY Raymond N. Matson

ATTORNEY

United States Patent Office 2,834,441
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2,834,441

WINDOW CONSERVATORY

Philip Burns Mims, Alexandria, Va.

Application December 31, 1954, Serial No. 479,005

1 Claim. (Cl. 189—64)

This invention relates generally to greenhouses and more particularly to a conservatory adapted to surround and enclose the window of a dwelling, etc.

Conservatories of this type are known in the art and are usually characterized by a number of inherently disadvantageous features. Among these are an unsightly appearance so as to detract materially from the normal appearance of the home, an excessive weight requiring it to be ground supported rather than wall supported in the manner of a bay window, an inflexibility of design permitting no variation in the type of windows and frames used, and an unnecessarily high cost.

Accordingly, the chief object of the present invention is to provide a novel window conservatory which will obviate the aforementioned and other objectionable features characterizing known structures.

Another important object of the present invention is to provide an improved window conservatory which may readily be permanently or temporarily attached to a dwelling, etc. about a window whether of the steel sash or double hung type.

A further important object of the present invention is to provide an improved window conservatory which may be shipped to the dwelling, etc. site in knocked down condition and readily bolted together for installation.

A still further important object of the present invention is to provide an improved window conservatory adapted to rest on a window sill which embodies a basic frame structure that enables the use of various combinations of window frames and vents.

Another object of the invention is to provide an improved window type conservatory having novel locking means for the vents.

Other objects and advantages of the present invention will become apparent during the course of the following descriptions.

In its broadest aspect, the invention contemplates a knocked down window conservatory, the weight of which rests on the window sill and which is designed to receive a great variation of stock window sizes in its frame.

In the drawings, I have shown one embodiment of the invention. In this showing:

Figure 1 is a perspective view of the window conservatory comprising the present invention in installed position on a window sill;

Figure 2 is a side elevational view thereof;

Figure 3 is a vertical sectional view of the outer basic frame portion thereof, parts being shown in elevation;

Figure 4 is a fragmentary elevational detail view, parts being broken away, of the connection of the inner basic frame with a dwelling, etc.;

Figure 5 is a perspective view of the basic frame comprising a part of the present invention;

Figure 6 is a plan view of the floor of the window conservatory;

Figure 7 is an exploded diagrammatic view of a form of temporary wall securing means;

Figure 8 is a central vertical sectional view of the floor of the invention taken on the line 8—8 of Figure 6;

Figure 9 is a fragmentary plan view of a novel window catch and lock forming a part of the present invention;

Figure 10 is a side elevational view thereof;

Figure 11 is a plan view thereof showing the catch turned in readiness to be swung to locking position;

Figure 12 is an elevation view showing the catch swung to locking position behind the vent frame; and

Figure 13 is an elevational view showing the vent held in open position by the combined catch and lock.

Referring to the drawings, numeral 15 indicates the window conservatory as a whole which includes a basic frame (Figure 5) formed primarily of hollow, rectangular tubing which is preferably of steel or aluminum although it may be formed of plastic, etc.

An inclined roof frame is formed of a front member 16, a rear member 17 and side members 18 which are connected with a floor frame by vertically extending spaced, side frame members 19 and 20. The floor frame comprises a front member 23, a rear member 24 and side members 25 to complete the basic frame structure which is held rigidly together by means of main frame assembly machine screws 26 (Figures 3 and 4). It is to be noted that the roof side members 18 and the rear floor member 24 are formed of angle irons for purposes which will become apparent.

When the basic frame described is assembled and rigidly screwed together, it is mounted in position in and around a window-opening 27 with the bottom rear angle frame member 24 resting on the sill 29 which thus bears the weight of the basic frame. The frame may be maintained in position by means of anchor bolts or screws extending through the frame member 17 into the abutting wall. Preferably however, a pair of flat bars 30 are fixed to the wall W behind the frame members 19 and 20 and the latter in turn are suitably affixed thereto as by screws.

Where a permanent installation is undesirable as in the case of rental property, temporary clamps 33 are provided (Figure 7) and connected to eyes 34 screwed to each end of the upper front frame member 16 by means of heavy threaded rods 35. The clamps engage the inner window frame, are relatively inconspicuous, and the rods 35 are substantially concealed during use of the conservatory by the growing plants.

An important feature of the present invention resides in the fact that the size of the frame of a casement window and the opening defined by the front frame members 16, 20, 23 and 19 are identical. Thus, the user of the conservatory, having installed the basic frame as described, may remove his casement window 36 and install it in the front of the basic frame as shown in Figure 1.

The side openings of the basic frame defined by the members 18, 20 and 25 and 18, 19 and 25 are of the same dimensions and adapted to receive stock metal window sizes whether vented or not, such as the 4 light panel 37 (Figures 1, 2 and 3). The panels 37 and the casement window 36 are fixed in position in the basic frame by means of screws as is conventional.

As shown in Figure 3, the transferred casement window 36 or any desired style of window is inserted in the opening defined by the front frame members and fixed thereto by screws 38 at spaced points about its periphery. These screws and the junction of the side and front frame members are adequately hidden by means of an upper outer flat bar 39 and a lower angle bar 40, each fixed to the front and sides of the conservatory and both comprising trim strips.

A standard 3 light casement window 43 is mounted by means of screws in the inturned flanges 44 of the inclined roof frame members 18 or alternatively, a vented case-

ment window may be installed. Thus, the front, sides and roof of the conservatory may have fixed lights or be vented as desired in accordance with the climatic conditions of the area wherein the conservatory is installed.

An angle 45 is fixed to the front of the floor frame angle 24 and this and the other frame members 23 and 25 have fixed thereto a floor 46 comprising an expanded metal duck board the interior of which contains insulation material 47. The substantially flat floor is provided with a pair of weep holes 48 for drainage of condensation and crimped as at 49 to insure drainage thereto.

Where the casement windows installed in the front, top or sides of the basic frame include vents, a novel locking handle 50 (Figures 9–13 inclusive) is provided therefor, the handle including catches for holding the vents in various positions of open adjustment.

The handle 50 is curved and pivotally connected at 53 to a swivel block 54 which is pivoted at 55 to a small rearwardly projecting ledge or flange 56 formed on the inner face of the vent frame 57. When the vent is to be locked, the vent flange 56 is pulled against the vent casement frame 58 (Figure 9) by the handle 50 which is then swung to the right (Figure 11) in a horizontal plane. The handle, being spaced from the swivel block 54 the thickness of the casement frame 58, is now vertically swung 90° counterclockwise (Figure 12) to engage behind the frame 58 and lock the vent in closed position.

When the vent is unlocked and ready to be moved to any of several open positions (Figure 10), the handle 50, which has a plurality of longitudinally spaced projections 60 formed on its underside, is moved to the left (Figure 13) until the desired angle of opening of the vent is obtained whereupon the handle 50 is depressed until one of the projections 60 engages the casement frame 58. Thus the handle 50 serves not only as a simple but efficient window lock but also as a window catch.

The conservatory comprising the present invention, by resting on the sill 29 while overlapping the sides and top of the window opening 27, is attractive as a conventional bay window while being much more economical in cost. Additional and decorative supports when desirable may be provided in the form of L-shaped bars 63 having decorative scrolls, etc. 64, and fastened to the wall W and to the bottom of the conservatory 15.

The interior of the conservatory may be readily equipped with a plurality of adjustable shelves for the support of the various plants to be grown. Automatically controlled heating, humidifying and ventilating means (not shown) are readily installed so that ideal growing conditions for plant life may be maintained the year around.

Thus the conservatory comprising the present invention provides a basic frame unit which may be provided in knocked down form and readily assembled and bolted together. The basic frame unit cooperates with a casement or other window opening to act as a bay window therefore without modification thereof and the casement window may be installed in the outer frame or such a window may act as a storm window therefor or for a double hung window. The basic frame comprises a strong box type frame while permitting ready cooperation with the supporting sill for permanent or temporary installation.

It is to be understood that the form of the invention herewith shown and described is to be taken as a preferred example of the same and that various changes in the shape, size and arrangement of parts may be resorted to without departure from the spirit of the invention or the scope of the subjoined claim.

I claim:

A knock-down type conservatory detachably connected to a wall having upper, lower or sill and side elements which define a window opening; said conservatory comprising a metal box frame of rigidly connected members which members when united form panel openings for a top panel, a bottom panel, a front panel and side panels; glass panels placed in said top, side and front openings; and a metal panel having drainage holes placed in the bottom panel opening; said metal box frame and its panels resting on the sill element and projecting outwardly therefrom to support the entire box frame against the wall; said bottom panel with its rigidly connected members resting flush on the sill while the top panel member and its rigidly connected members rest against the wall above the window opening, and the side panel members with their rigidly connected members rest against the wall beyond the window opening; and bolt means securing the rigidly connected box frame members to the wall.

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