

Jan. 19, 1954

L. L. LESTER, JR

2,666,234

TWO-PART PREFORMED WINDOW FRAME STRUCTURE

Filed Nov. 13, 1952

Fig. 1.

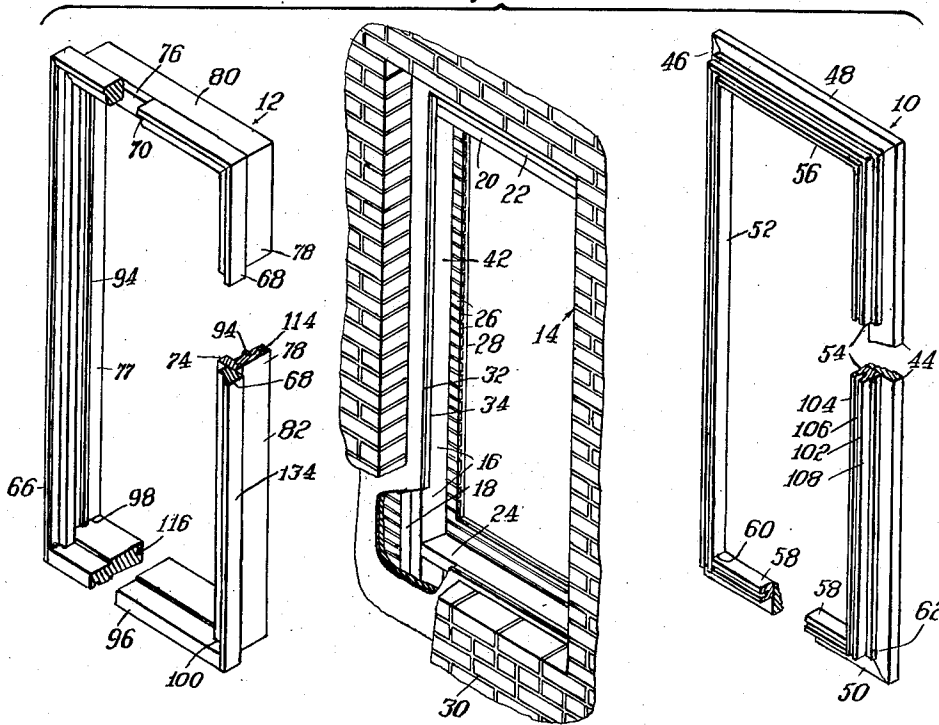


Fig. 2.

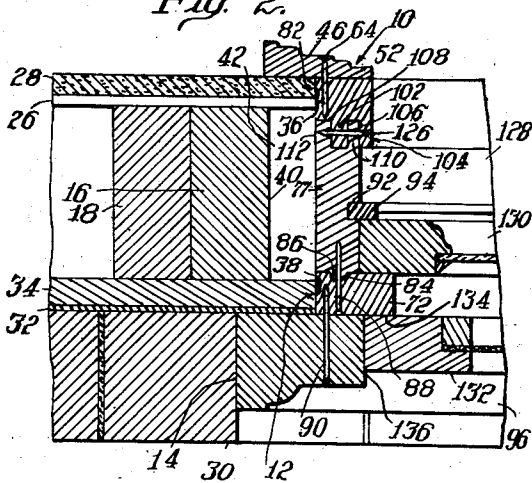
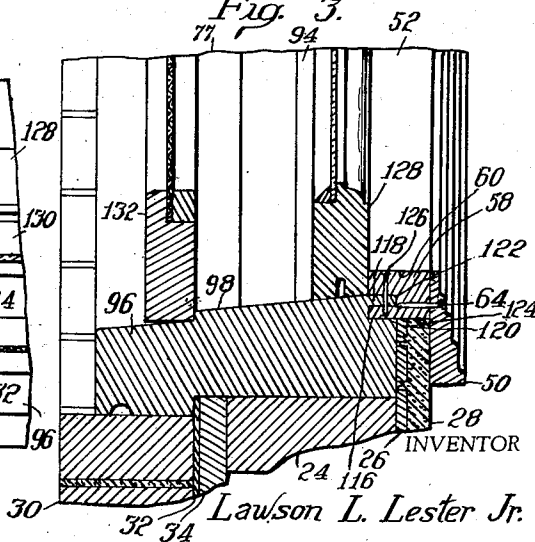


Fig. 3.



INVENTOR  
Lawson L. Lester Jr.

BY Shoemaker & Mattar

ATTORNEYS

# UNITED STATES PATENT OFFICE

2,666,234

## TWO-PART PREFORMED WINDOW FRAME STRUCTURE

Lawson L. Lester, Jr., Martinsville, Va.

Application November 13, 1952, Serial No. 320,187

2 Claims. (Cl. 20—11)

1

The present invention relates to improvements in window frame constructions and more particularly to an improved preformed window frame construction for adjustably fitting the window frame receiving opening of a building structure.

I am aware that heretofore attempts have been made to provide preformed window frame assemblies and in some cases these assemblies have been adjustable to accommodate the differences resulting from the variation in sizes of the standard 2 by 4 or other studding. The prior art has disclosed constructions which require substantial overlapping of material, tapered or inclined surfaces, rabbeted cooperating edges and other arrangements. In the prior art arrangements additional means is employed so as to provide channels for slidably receiving the window sashes. Such additional means has required added assembly work that increases the cost per unit of the individual preformed units. Also, the construction of the units has not been such that the joints prevent relative movement in any direction.

It is, accordingly, a primary object of the present invention to provide an improved preformed or prefabricated window frame which will overcome the difficulties and minimize the objectionable features heretofore present in the art.

A further object of the present invention is to provide an improved preformed window frame construction which requires a minimum of overlapping of the inner and outer sub-units and yet which will be adjustable within the usual required limits while effectively holding each of the side and end sections of one sub-unit from lateral movement relative to the corresponding side and end sections of the other sub-unit.

Still another object of the present invention is to provide an improved preformed window frame construction which is of such form as to be readily adjustably associated in the conventional window frame opening and which when assembled in the opening provides the channels necessary for the slidable sash without requiring the employment of special guide or molding strips to define the channels.

Various other objects and advantages will become apparent from the detailed description to follow. The best embodiment in which I have contemplated applying my invention is illustrated in the accompanying drawings wherein:

Fig. 1 is an exploded isometric view showing the inner and outer frame sub-units prior to assembly in the window opening of a building;

2

Fig. 2 is a horizontal sectional view showing the assembly at one of the jambs; and

Fig. 3 is a vertical transverse sectional view showing the assembly at the sill.

Referring more particularly to the drawings it will be seen that my improved preformed or prefabricated window frame construction is preferably formed of wood although the use of other materials would be within the realm of my invention. My frame construction includes inner sub-unit 10 and outer sub-unit 12 which are adapted to be associated in a conventional window opening such as shown at 14 in Fig. 1.

The window frame receiving opening 14 is formed, as here shown, by the double vertical studding 16, 18 at each side joined by upper horizontal plates 20, 22 and a lower horizontal plate at 24. Of course, other types of structural members could be employed to define the window opening. Fig. 2 shows that the interior wall surface is provided by lath 26 and plaster 28 while the exterior wall surface is shown to be formed of a brick veneer 30 over weather proofing paper 32 and a wood sheathing 34. The inner edges 36 and 38 of the interior and exterior wall surfacing, respectively, extend beyond the surface 40 of the vertical studding to define a vertical channel 42 at each side of the window opening, in which the sash weights can be received, as will be understood. If desired, sash balance in lieu of weights and cord can be utilized.

The inner window frame forming sub-unit 10 is comprised of a pair of longitudinal or vertical trim pieces 44, 46 joined at their ends by a pair of transverse upper and lower trim pieces 48 and 50, the usual miter joints being provided at the corners with glue or nails providing securement so as to define substantially a rectangle. The sub-unit 10 further includes a pair of inner jamb sections 52 and 54 joined at their upper ends by the transverse head piece 56 with miter joints at the corners and at their lower ends by a transverse sill piece 58 which underlies the bottom ends 60 and 62 of the longitudinal jamb sections 52 and 54. Here again, glue, nails, screws or other conventional means can be employed at the joints as desired.

The rectangle constituted of the trim pieces 44, 46, 48, 50 is secured to the rectangle constituted of the jamb sections 52, 54 and head and sill pieces 56, 58 by means of nails 64, or the equivalent, as shown best in the section of Fig. 2. This figure shows that the interior dimensions of the rectangle 52, 54, 56, 58 are less than or substantially equal to the corresponding dimensions

3

of the rectangle 44, 46, 48, 50, while the exterior dimensions of the former rectangle are substantially less than the corresponding dimensions of the latter rectangle. The latter relative dimensioning gives the L-shape cross-section that conforms to the interior wall surface at the end edges 36.

The outer window frame forming sub-unit 12 is comprised of a pair of longitudinal trim pieces 66, 68 joined with a miter joint at their upper ends by a transverse trim piece 70, thereby defining a substantially U-shape. The trim 66, 68, 70 differs in cross-sectional form from that of the trim 44, 46, 48, 50 as is conventional. The sub-unit 12 further includes a pair of outer longitudinal jamb sections 72, 74 joined with a miter joint at their upper ends by a transverse head piece 76 so as to define substantially a U-shape, the latter U-shape being of smaller interior and exterior dimensions than the corresponding dimensions of the U-shape of the trim pieces. The sub-unit 12 further includes a pair of relatively wide, longitudinal main jamb sections 77, 78 joined with a miter joint at its upper ends by the transverse main head piece 80, thereby providing a U-shape of interior dimensions substantially greater than that of the U-shape formed of the outer jamb sections and head piece as well as greater than that of the corresponding dimensions of the rectangle of the inner jamb sections and head and sill piece, the exterior dimensions of all portions of the inner and outer sub-units exclusive of the bottom portions and the trim being substantially the same and of such size as to provide a continuous surface 82, which with the trim pieces define a channel for embracing the window frame receiving structure, as will be understood more fully hereinafter.

The outer jamb sections 72, 74 and the head piece 76 are each formed with a longitudinally extending groove, as at 84, and the main jamb sections 77, 78 and main head piece 80 are each provided with a longitudinally extending tongue or rib, as at 86, which are engaged in the grooves 84. Nails 88 or other equivalent means are employed for securing the respective outer and main jamb sections together and the corresponding head pieces together. The trim U-shape is then secured by nails 90 to the U-shape of the outer jamb sections and head piece. The main jamb sections are grooved at 92 to receive the dividers 94. Next the sill 96 is secured by suitable means to the lower ends 98, 100, of the legs of the U-shaped structure, and the sill ends have been cut to conform with the inner surfaces of the legs, thereby providing the outer sub-unit 12.

The inner jamb sections 52, 54 and head piece 56 are formed with a double tongue, 102 and 104, and groove, 106 and 108, formation while the main jamb sections and main head piece are formed with a double tongue, 110 and 112, and single groove 114 formation. Similarly, the sill 96 is formed with a single groove at 116 which thereby provides a tongue 118 for cooperation with the tongue 120 and groove 122 of the sill piece 58. The tongue and groove formations are of sufficient size as to afford adjustment in the connection between the sub-units 10 and 12.

When it is desired to insert a preformed frame into a window opening as shown in Fig. 1, the inner sub-unit 10 is engaged in the window frame opening from the interior of the building, while the outer sub-unit 12 is engaged from the exterior of the building. The tongue and groove formations of the sub-units are cooperatively en-

4

gaged as shown in Figs. 2 and 3, with the trim abutting the interior and exterior wall surfaces and the surfaces 82 and 124 abutting the edges of the plaster and lath at 36. Nails 126, or the equivalent, are employed for securing the sub-units together in this relationship by engagement through the several overlapping tongues. Of course, if the wall thickness is too great to have the tongues fully inserted into their respective grooves, they need not be, but can be secured in the necessary adjusted relationship by the nails 126.

As seen best in Fig. 2, the tongue 102, divider 94 and outer jamb sections provide, with the inside surface of the main jamb piece, a pair of channels for slidably receiving the sashes 128 and 130 while a screen 132 can be engaged against the surfaces 134, and 136. It will therefore be apparent that I have provided a construction wherein it is unnecessary to additionally employ moulding or guide strips for forming the sash or screen receiving portions. Also the amount of overlap at the joint between the sub-units is minimized although the double tongue and groove arrangement provides the necessary strength.

Although the drawings show the use of a brick veneer, it is to be understood that clapboard or other types of siding could be employed without departing from the spirit of the invention.

I claim:

1. A prefabricated window frame comprising inner and outer window frame forming portions, said inner window frame forming portion including a pair of longitudinal trim pieces joined at their ends by a pair of transverse trim pieces to define substantially a rectangle, and a pair of inner longitudinal jamb sections joined by a transverse head piece and a transverse sill piece to define substantially a rectangle of interior dimensions substantially equal to the corresponding dimensions of the rectangle of said trim pieces and substantially less in outside dimensions than the outside dimensions of the rectangle of said trim pieces, and means joining said longitudinal and transverse trim pieces to the longitudinal jamb sections and head and sill pieces, respectively, so as to provide an inner sub-unit, said outer window frame forming portion including longitudinal trim pieces joined by a transverse trim piece so as to define a substantially U-shape, a pair of outer longitudinal jamb sections joined by a transverse head piece so as to define a U-shape of smaller inside dimensions than said U-shape of the last mentioned trim pieces, a pair of relatively wide longitudinal main jamb sections joined by a transverse main head piece so as to define a U-shape of inside dimensions greater than that of the U-shape defined by the outer jamb sections and transverse head piece and also greater than the inside dimensions of the U-shape defined by the inner jamb sections and transverse head piece, means joining the U-shape of the outer jamb sections and head piece to the U-shape of the main jamb sections and head piece, means joining the U-shape of the outer longitudinal and transverse trim pieces to the U-shape of the outer jamb sections and head piece, a sill joining the free ends of the U-shapes, so as to provide an outer sub-unit, means for adjustably joining the inner sub-unit, means to the main jamb sections at side edges thereof so as to provide an outside peripheral channel adapted to embrace the vertical studding and upper and lower horizontal plates defining a window frame

5

receiving opening, and with the inner and outer longitudinal jamb sections both projecting inwardly beyond the inner face of the main jamb sections and forming therewith inner longitudinal channels along opposite sides of the window frame, and a longitudinal divider carried by each of the main jamb sections dividing said longitudinal channels into separated channels for the upper and lower sashes.

2. A prefabricated window frame comprising inner and outer window frame forming portions, said inner window frame forming portion including a pair of longitudinal trim pieces joined at their ends by a pair of transverse trim pieces to define substantially a rectangle, and a pair of inner longitudinal jamb sections joined by a transverse head piece and a transverse sill piece to define substantially a rectangle of interior dimensions substantially equal to the corresponding dimensions of the rectangle of said trim pieces and substantially less in outside dimensions than the outside dimensions of the rectangle of said trim pieces, and means joining said longitudinal and transverse trim pieces to the longitudinal jamb sections and head and sill pieces, respectively, so as to provide an inner sub-unit, said outer window frame forming portion including longitudinal trim pieces joined by a transverse trim piece so as to define a substantially U-shape, a pair of outer longitudinal jamb sections joined by a transverse head piece so as to define a U-shape of smaller inside dimensions than said U-shape of the trim pieces, a pair of relatively wide longitudinal main jamb sections joined by a transverse main head piece so as to define a U-shape of inside dimensions greater than that of the U-shape defined by the outer jamb sections and transverse head piece and also greater than the inside dimensions of the

6

rectangle defined by the inner jamb sections and transverse head piece, means joining the U-shape of the outer jamb sections and head piece to the U-shape of the main jamb sections and head piece, means joining the U-shape of the outer longitudinal and transverse trim pieces to the U-shape of the outer jamb sections and head piece, a sill joining the free ends of the U-shapes, so as to provide an outer sub-unit, means for adjustably joining the inner jamb sections to the main jamb sections at side edges thereof to provide an outside peripheral channel adapted to embrace the vertical studding and upper and lower horizontal plates defining a window frame receiving opening and an inside peripheral channel, and a longitudinal divider carried by each of the main jamb sections so as to divide the inside channel along opposite sides of the frame into separated channels for the upper and lower sashes, said means for adjustably joining the inner jamb sections to the main jamb sections including a pair of tongues and a groove on the inner edge of each inner jamb section and on the inner opposing edges of the main jamb sections, the pairs of tongues on the inner jamb sections interfitting in overlapped relation with the pairs of tongues on the main jamb sections, and fastening members piercing the overlapping tongues, said tongues and grooves being of a length and depth, respectively, to afford the requisite adjustment of the sub-units toward and from each other.

LAWSON L. LESTER, JR.

## References Cited in the file of this patent

## UNITED STATES PATENTS

Number	Name	Date
1,995,233	Triller	Mar. 19, 1935
2,293,648	Horn	Aug. 18, 1942