Feb. 15, 1944. S. E. COWBOURNE 2,341,906

DOOR AND WINDOW FRAME

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Fig. 1.

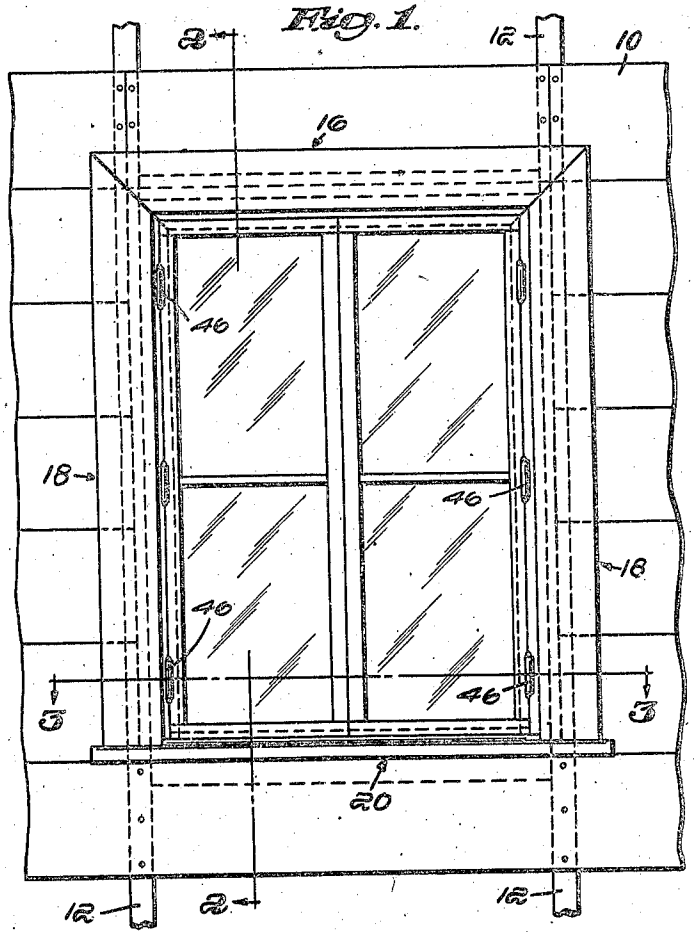


Fig. 2.

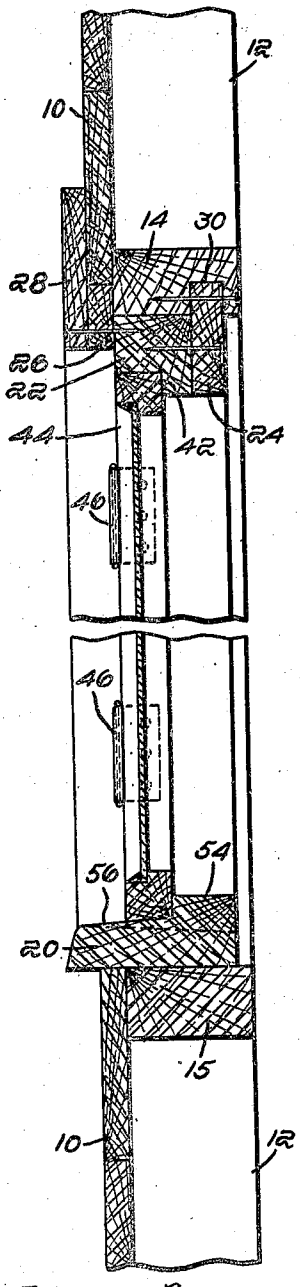
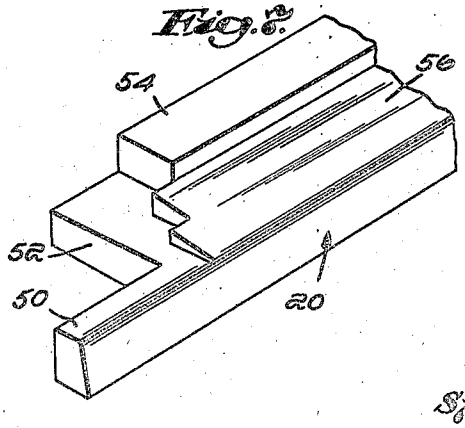


Fig. 3.



Inventor:
Spencer E. Cowbourne,
By Kenway & Witter
Attorneys

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Fig. 3.

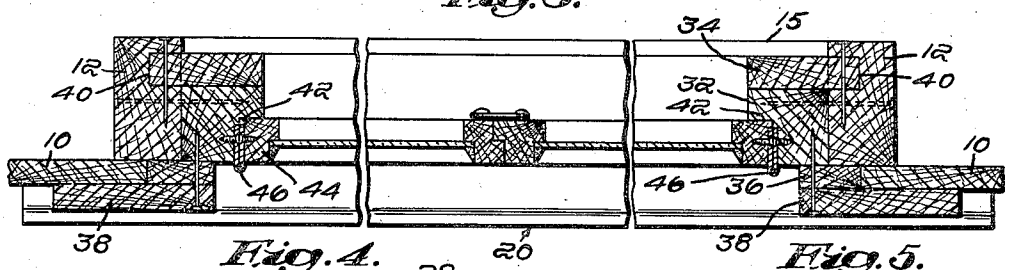


Fig. 4.

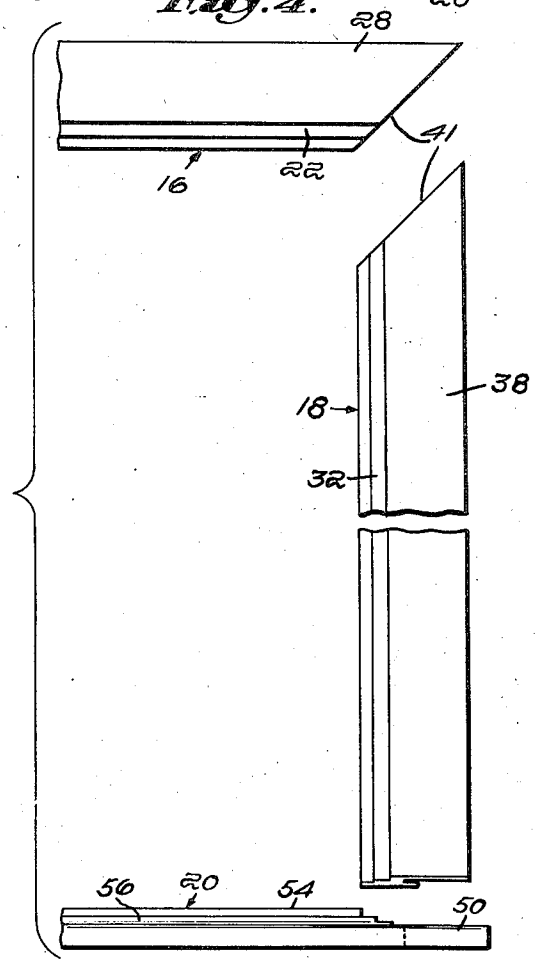


Fig. 5.

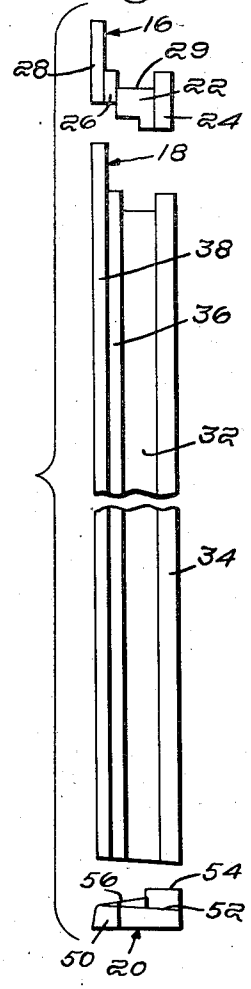
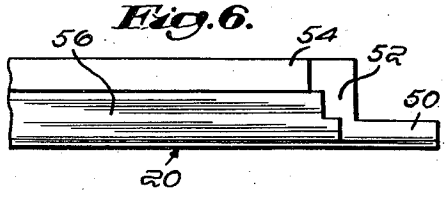


Fig. 6.



Inventor:
Spencer E. Cowbourne,
by Kenway & Witter
Attorneys

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UNITED STATES PATENT OFFICE

2,341,906

DOOR AND WINDOW FRAME

Spencer E. Cowbourne, Arlington, Mass.

Application April 16, 1942, Serial No. 439,215

3 Claims. (Cl. 20—11)

This invention relates to door and window frames and more particularly to such a frame simply and economically constructed in sections adapted to be conveniently transported and assembled in a building and, furthermore, adapted to be as conveniently disassembled in like manner. The invention contemplates a novel frame embodying four pieces adapted to be economically pre-fabricated in quantity production at the mill and transported as independent units to the building location. The four pieces comprise top, side and bottom frame portions which are adapted to be assembled in place merely by first locating the top piece in place in the door or window opening, then placing the side pieces in juxtaposed relation at the ends of the top piece, and finally placing the bottom piece which serves to wedge and hold the other pieces in place and form the bottom portion of the frame. The production of such an improved construction adapted to be conveniently and economically manufactured, easily assembled in place and as easily disassembled should occasion require comprises the primary object of the invention.

These and other features of the invention will be best understood and appreciated from the following description of a preferred embodiment thereof selected for purposes of illustration and shown in the accompanying drawings, in which:

Fig. 1 is a front elevation of a window embodying my improved frame,

Fig. 2 is a vertical sectional view taken on line 2—2 of Fig. 1,

Fig. 3 is a horizontal sectional view taken on line 3—3 of Fig. 1,

Fig. 4 is a fragmentary front elevation of the parts comprising the frame,

Fig. 5 is a side elevation thereof,

Fig. 6 is a fragmentary plan view of the bottom piece or stool of the frame, and

Fig. 7 is a fragmentary perspective view of the same.

In the drawings, 10 indicates the side wall of a building supported on vertical studs 12 and having a window opening located between the studs and between two horizontal headers 14 and 15 also supported on the studs.

My improved window frame comprises a top piece 16, two side pieces 18 and a bottom piece or stool 20. The top and side pieces are of similar construction, each preferably embodying a plurality of strip elements nailed or otherwise secured together. The top piece comprises a main body portion 22 having a strip 24 nailed to its rear face and two strips 26 and 28 nailed to its front face. The strips 24 and 26 project laterally beyond the body 22 to provide a rear channel 29 for receiving a portion of the header 14, the header being recessed longitudinally at 30 to receive the projecting portion of the strip 24. The strip 26 is adapted to rest against the front face of the header and abut against the side wall 10 as illustrated in Fig. 2. The strip 28 projects beyond the strip 26 to provide a casing resting against the outer face of the wall 10.

Each side piece 18 is of a construction similar to the top piece 16, each embodying a main body portion 32 and strips 34, 36 and 38, each stud being grooved at 40 to receive the projecting portion of the strip 34. The ends of the top piece 16 and the top ends of the side pieces 18 are mitre cut at 41 to form a tight joint when brought into engaging relation. The strips 28 and 38 provide the outer casing of the frame and the strips 24 and 34 in like manner provide the inner casing of the frame. The inner corner portion of the bodies 22 and 32 are recessed at 42 to receive the window frame 44 which is secured to the bodies 32 by hinges 46.

The fourth piece 20 of my improved frame comprises a block or stool having end portions 50, tapering portions 52 and an intermediate portion 54. The portions 52 and 54 are adapted to be received in the window opening between the studs 12, the tapering portions serving to wedge beneath the bottom ends of the side pieces 18 and hold them firmly in contact with the top portion 16 and the shoulders provided by the ends of the intermediate portion 54 being adapted to engage the side pieces and hold them outwardly in contact with the studs 12. The portion 54 forms the bottom part or stool of the frame and its front casement portion is tapered at 56 to form the sill.

It is believed that the simplicity and advantages of my improved frame will be readily apparent. The pieces 16 and 18 are conveniently adaptable to mass production in long strips from which the frame lengths can be mitre cut severed to provide the joints at 41 and the pieces 20 can be likewise formed either in one piece or in pieces comprising the three elements 54, 56 and the base portion. The four pieces comprising the frame are adapted to be transported as independent units to the place of use where they are assembled in the building opening merely by first placing the top piece 16, then the two

side pieces 18 and lastly the base piece 20 which wedges and holds the other pieces in place. The piece 20 can be nailed in place or it can be secured by other suitable means. When assembled, the four units form a complete frame including the marginal casings and sill. If occasion requires, the entire assembly can be readily disassembled intact merely by removing the bottom piece which serves to hold the units in assembled relation.

Having thus described my invention what I claim as new and desire to secure by Letters Patent of the United States is:

1. A prefabricated sectional frame for doors and windows, comprising one top and two side units adapted to fit the housing structure at the edges of a frame receiving opening, the ends of the top unit and one end of each side unit being miter cut to slide freely into tight frame forming contact at the top end of the opening, and a base unit freely slidable laterally into frame forming position beneath the bottom ends of the side units, the base unit having an intermediate portion forming the sill of the frame and adapted to engage and hold the side units in spaced relation and having end portions constructed to wedge beneath the bottom ends of the side units and hold the miter cut ends in frame forming contact when the bottom piece is slid laterally into the frame forming position.

2. A prefabricated sectional frame for doors and windows, comprising top and side pieces each embodying two strip-like elements extending longitudinally of the piece and secured in spaced relation to a body located therebetween and providing outer and inner casings, the elements projecting laterally beyond the body and providing therebetween and therealong a channel the width of said body adapted to receive and fit over the housing structure at the edges of a frame receiving opening, the ends of the top piece and adjacent ends of the side pieces being miter cut to a relation permitting the side pieces to slide longitudinally into tight frame forming contact with the top piece, and a bottom piece freely slidable laterally into frame forming position beneath the bottom ends of the side pieces, the bottom piece having an intermediate portion forming the sill of the frame and having end portions constructed to wedge beneath the bottom ends of the side pieces and hold the miter cut ends in tight frame forming contact when the bottom piece is slid laterally into the frame forming position.

3. In combination with a frame opening embodying two vertical studs and two horizontal headers all in frame forming relation at the borders of the opening, a sectional frame comprising a top piece recessed rearwardly therealong and embracing therein a portion of the top header, two side pieces recessed rearwardly therealong and embracing portions of the studs, and a bottom piece having lateral sliding contact with the bottom header and having wedge shaped end portions wedged beneath the bottom ends of the side pieces and holding them in frame forming contact with the top piece at their adjacent ends and having an intermediate portion forming the sill of the frame, said wedge shaped end portions tapering inwardly in a direction causing them to wedge and hold the side pieces in said contact with the top piece when the bottom piece is slid laterally inward of the opening to frame forming position.

SPENCER E. COWBOURNE.