Sept. 28, 1937. J. GARRITSEN 2,094,294

CASEMENT WINDOW CONSTRUCTION

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Fig. 1.

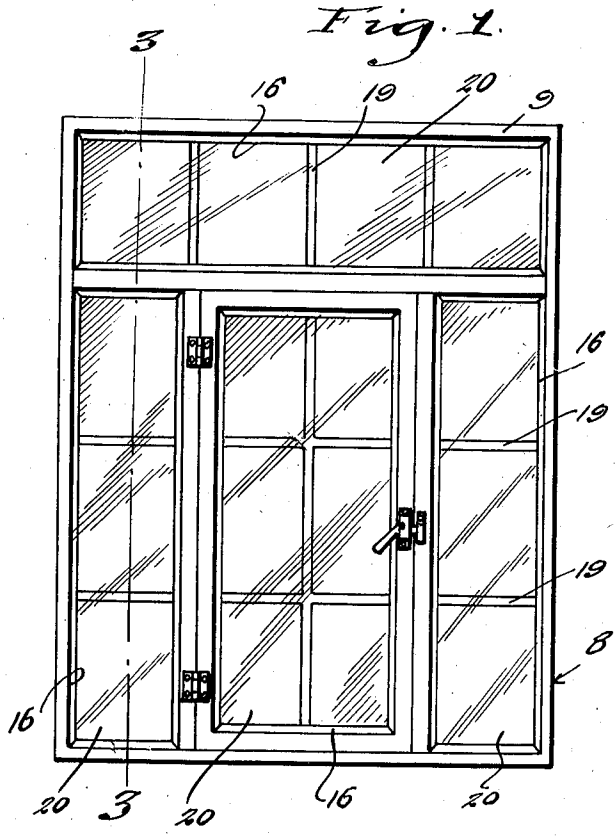


Fig. 5.

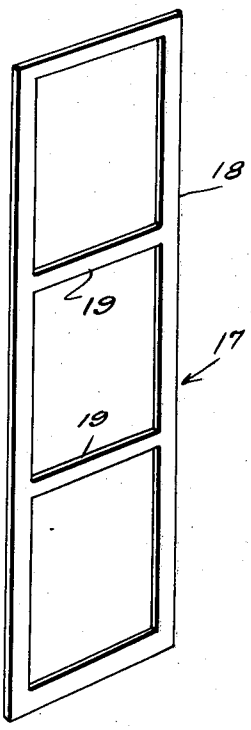
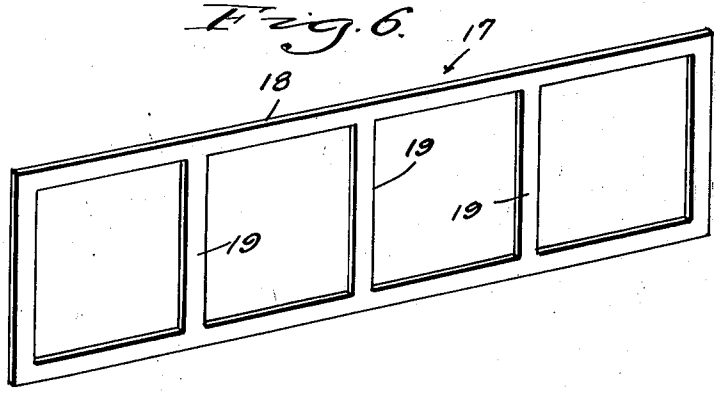


Fig. 6.



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CASEMENT WINDOW CONSTRUCTION

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Fig. 2.

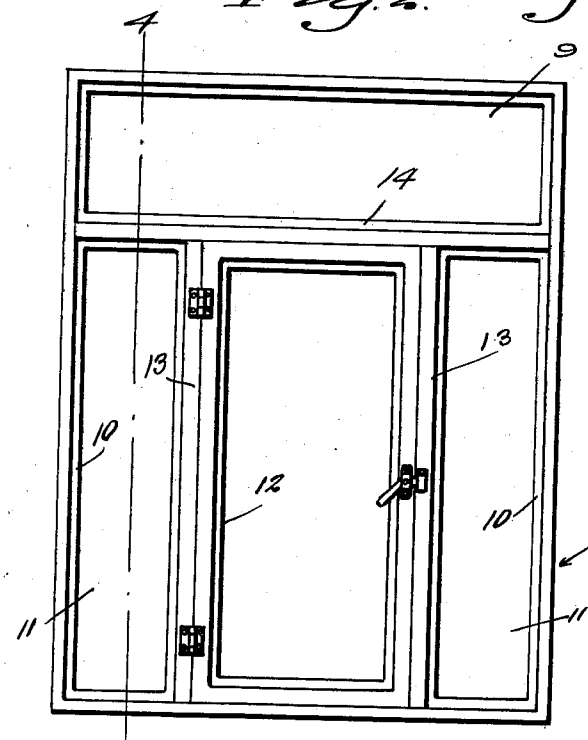


Fig. 3.

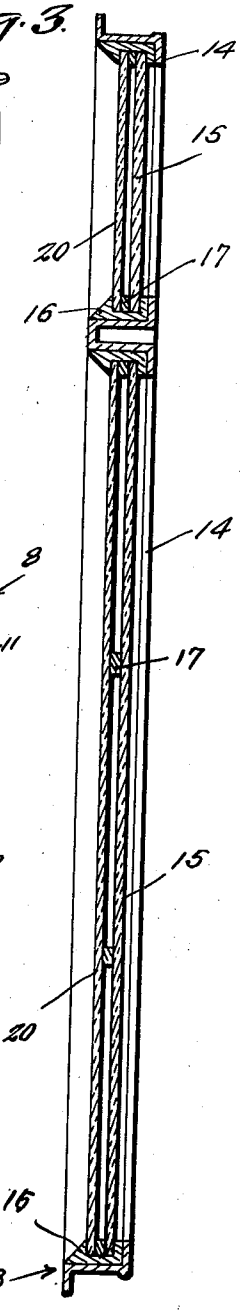


Fig. 4.

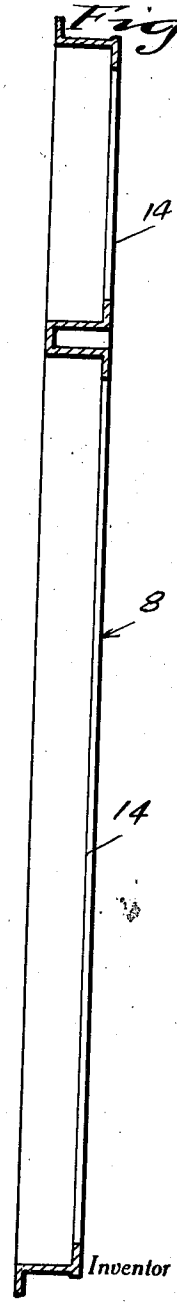
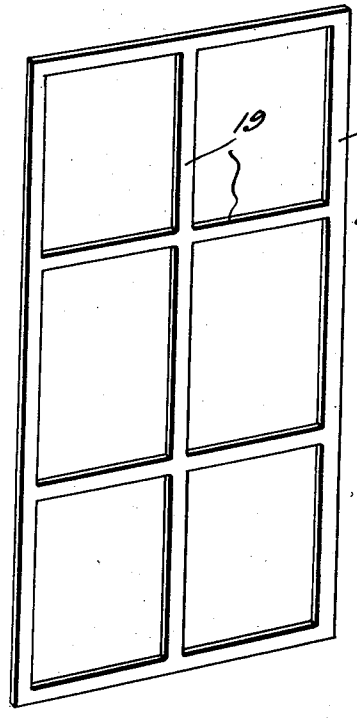


Fig. 7.



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CASEMENT WINDOW CONSTRUCTION

John Garritsen, Detroit, Mich.

Application November 20, 1935, Serial No. 50,782

1 Claim. (Cl. 189—64)

This invention relates to building and construction lines of endeavor and is devoted more particularly to the construction and perfection of a new type casement window of the double glazed variety.

It goes without saying that there are various types of so-called dual and duplex glazed window structures. These are used primarily for insulation purposes due to the development of a dead air space between the complemental panes of glass, the result being such as to render the glass substantially frostproof.

In the field of invention which has to do with the construction and provision of so-called casement windows it is well known that the window lights are made up of multiplicity of comparatively small window panes these being separated or divided by jointing bars commercially known as muntins. It stands to reason that these types of windows are difficult to paint and tax one's patience when cleaning or washing. Then too, there is considerable accumulation of dirt and moisture in the various corners defined by the frames which surround a multitude of small individual window lights.

My invention, in addition to incorporating therein the frost-proof feature, is primarily ingenious in that special metal inserts are located between the respective pairs of window glasses and are fashioned to define the outlines of a multiplicity of individual window panes. Thus, in a sense, I have perfected a more or less imitation or artificial window construction wherein the inserts will serve as spacing elements and as imitation muntins.

It is evident that with this form of construction a new method of assembling and manufacturing is involved and the final product is such that there are unobstructed window panes which are susceptible of being easily washed without encountering obstructions, whereby to overcome the disadvantages heretofore met from the use of windows of the multiple lattice-bar type.

Other features and advantages will become more readily apparent from the following description and accompanying illustrative drawings.

In the drawings, wherein like numerals are employed to designate like parts throughout the views:

Figure 1 is what may be designated as an outside elevational view of a complete casement window constructed in accordance with the principles of the present inventive conception.

Figure 2 is a similar view with the glass plates or panes removed to show the bare metal frame structure.

Figures 3 and 4 are enlarged vertical sectional views taken approximately on the planes of the lines 3—3 and 4—4 respectively of Figures 1 and 2.

Figures 5, 6 and 7 are perspective showings of the sheet metal insert or spacers adapted to be located between the complemental pairs of window glasses, the type shown in Figure 5 being usable in one of the vertical panels, the type shown in Figure 6 being usable in the transom and the remaining form in Figure 7 used in the door.

Referring now to the drawings by distinguishing reference numerals attention is conveniently called first to Figure 2 which shows the all metal framework construction. The frame as a unit is denoted by the numeral 6 and is more or less conventional in outline and general make up. The elongated horizontal portion at the top defines the stationary transom 9 and the vertical stiles 10 define the so-called vertical panel, that is opeings 11 for the panel. They also function and cooperate with the remainder of the frame members in defining an appropriate opening for the hingedly mounted door 12, this cooperating immediately with the central vertical battens or stiles 13. All of these various frame members are of general angular cross sectional form as shown in Figures 3 and 4 to define assembling and retention flanges 14. The glass assemblage in each panel or door, as the case may be is the same and a description of one unit will suffice for all. Attention is therefore invited for example to Figure 3. Here we find an inner plate glass or pane 15 whose marginal portions are anchored in a sealing compound such as putty 16. This particular glass is forced into close proximity against the backing flange 14. When this is in place the brass insert or spacer unit 17 is brought into play. This comprises a rectangular frame 18 with cross pieces 19. The frame 18 serves as the retaining and spacing means and the cross pieces and end pieces serve in defining the imitation muntins. This insert or spacer frame 17 is held in place partially by the surrounding putty. The outer pane of glass 20 is placed flatly against the metal and anchored appropriately in the putty and the putty is finished off in the usual beveled manner as shown. It is evident therefore that this makes one complete panel with spaced window panes separated by the intervening metal units or inserts 17. The outer faces of both glasses are unobstructed and may be easily washed. Moreover

the marginal portions of the main frame work can be more readily painted or otherwise conditioned. The space between the glasses is a dead air space and provides the requisite insulating properties. The essential thing however is the provision of the vertical and horizontal elements 19 in the various metal inserts which define the imitation muntins and give the finished casement window as a whole the desired lattice or open work effect. As a matter of fact a casement window thus constructed is quite as ornamental as any on the market and possesses the additional advantages of easy cleaning and painting and equal ornamentation or design.

It is thought that persons skilled in the art to which the invention relates will be able to obtain a clear understanding of the invention after considering the description in connection with the drawings. Therefore, a more lengthy description is regarded as unnecessary.

Minor changes in shape, size, and rearrangement of details coming within the field of invention claimed may be resorted to in actual practice, if desired.

Having thus described the invention, what is claimed as new is:

In a structure of the class described, a rectangular main frame having an inturned edge flange surrounding the same, a pane of glass fitted at its edges into said main frame adjacent to said flange, a spacing frame of the same size as said pane formed of flat bar like metal and comprising right angularly related cross bars simulating the appearance of a multi-frame window sash, said spacing frame being disposed flat against said pane, a second pane of glass similar to the first pane fitted into the main frame flat against said spacing frame, and sealing material securing the edges of said panes and said spacing frame together and in said main frame for removal separately from the latter.

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