May 13, 1952 R. L. LEIGH 2,596,569

WINDOW SHUTTER

Filed Nov. 15, 1946

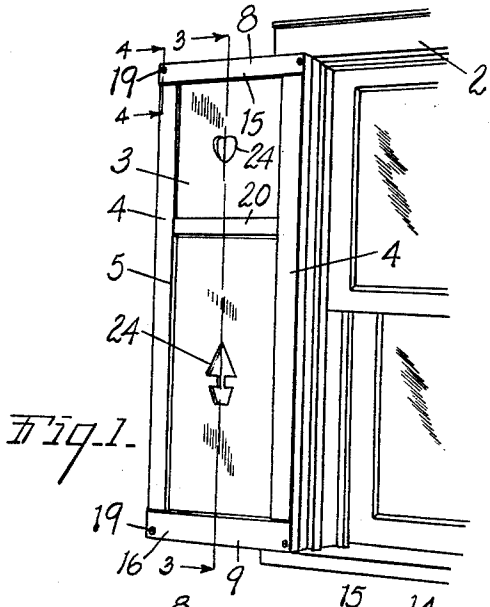


Fig. 1.

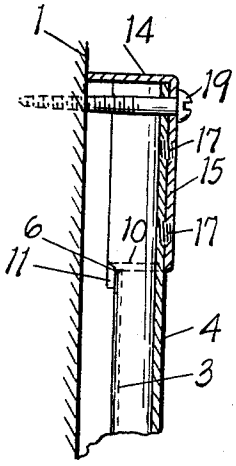


Fig. 4.

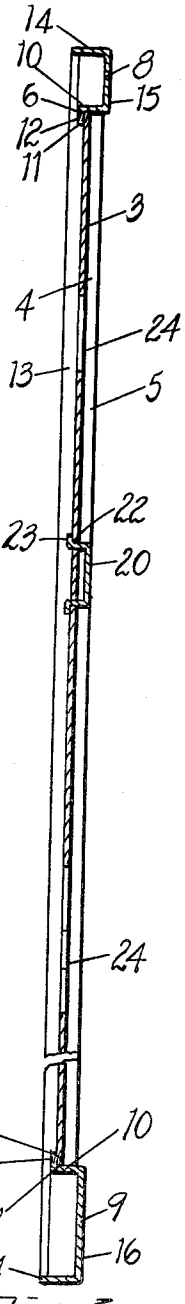


Fig. 3.

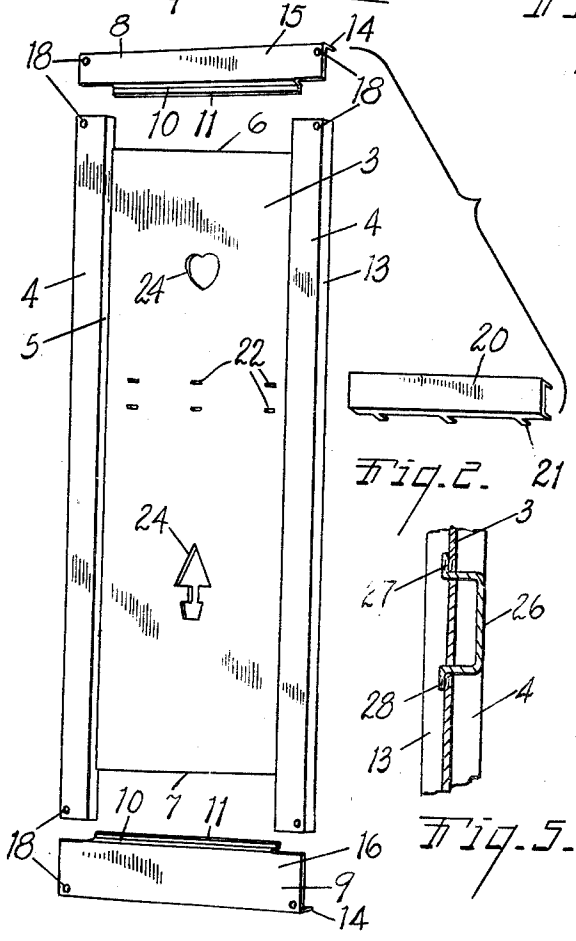


Fig. 2.

Fig. 5.

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WINDOW SHUTTER

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2 Claims. (Cl. 189—54)

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This invention relates to improvements in window shutters.

The main objects of this invention are:

First, to provide an ornamental window shutter or blind structure formed entirely of metal and at the same time one which simulates a shutter or blind formed of wood.

Second, to provide a structure of this character which is attractive in appearance, strong and rigid, and at the same time may be economically produced.

Objects relating to details and economies of the invention will appear from the description to follow. The invention is defined and pointed out in the claims.

A preferred embodiment of the invention is illustrated in the accompanying drawing, in which:

Fig. 1 is a fragmentary perspective view of a shutter or blind structure embodying my invention mounted in operative relation to a window.

Fig. 2 is an exploded view of the parts constituting the shutter or blind of the invention in a practical commercial embodiment thereof.

Fig. 3 is an enlarged fragmentary view in vertical section on a line corresponding to line 3—3 of Fig. 1.

Fig. 4 is an enlarged fragmentary view in section on line 4—4 of Fig. 1.

Fig. 5 is a fragmentary perspective view of an alternative form of mullion.

In the accompanying drawing, 1 represents the wall of a building and 2 a window thereof. The embodiment of the invention illustrated comprises a panel 3 and side walls 4 of inwardly facing channel section formed integrally of sheet metal. The inner arms 5 of the side rails project forwardly from the panel so that the side rails have the appearance of members of substantial thickness projecting forwardly from the panel. The ends of the side rails project substantially beyond the upper and lower edges 6 and 7 of the panel.

The top bar 8 and bottom bar 9 are both of inwardly facing channel section. The inner arms 10 of the top and bottom members are of such length as to fit between the projecting ends of the side rails. These inner arms of the top and bottom bars are provided with out-turned flanges 11 upon which the ends of the panel are disposed and to which the panel is secured by means of spot welds 12. These parts are arranged so that the ends of the panel abut the inner arms of the top and bottom bars.

The outer arms 13 of the side rails and the

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outer arms 14 of the top and bottom bars project substantially rearwardly of the plane of the panel so that when the structure is arranged upon a wall there is a substantial space at the rear of the panel and also this gives the appearance of a frame of substantial thickness.

The ends of the webs 15 and 16 of the top and bottom bars are superimposed upon the webs of the side rails and permanently secured thereto as by the spot welds indicated at 17. The webs of the side rails and of the top and bottom bars are provided with registering holes 18 adapted to receive screws 19 for attaching the blind members to the wall of the building as shown at 1 and 4.

The mullion 20 is of rearwardly facing channel section, the arms of the mullion being provided with lugs 21 disposed through holes 22 in the panel and clamped or clinched as indicated at 23 to secure the mullion in position with its ends abutting the inner edges of the side rails.

The openings 24 provide ventilation and are desirably of ornamental design. While some ventilation for the space at the rear of the blind is desirable, in most instances there would be ventilating space between the walls and the edges of the frame members or elements due to irregularities in the wall space.

In the structure shown in Fig. 5, the mullion 26 has inturned flanges 27 which are secured to the panel by spot welding as indicated at 28.

I have illustrated my invention in a highly practical embodiment thereof. I have not attempted to illustrate various adaptations which I contemplate as it is believed that this disclosure made will enable those skilled in the art to embody or adapt my invention as may be desired.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent, is:

1. A shutter structure comprising a panel and side rails of inwardly facing channel section integral therewith, the inner arms of the side rails projecting forwardly from the panel and projecting beyond the top and bottom edges of the panel, top and bottom bars of rearwardly facing channel section and having out-turned flanges on their inner arms, said bars being disposed with their webs upon and welded to the webs of the side rails and extending to the outer side edges of the side rails and with their inner arms between the side rails, the ends of the panel being disposed outwardly of and upon the said top and bottom bar flanges and welded thereto with their edges abutting the inner arms of the top and bot-

tom bars, the outer arms of the top and bottom bars overlapping the end edges of the outer arms of the side rails and closing the upper and lower ends of the channels of the side rails, the outer arms of the side rails and bars extending substantially rearwardly of the plane of the panel, and a mullion of rearwardly facing channel section disposed upon said panel intermediate said top and bottom bars with its ends abutting the inner sides of the side rails, said mullion having rearwardly projecting bendable lugs on its arms, said panel having holes receiving said lugs, the lugs being clamped on the rear side of the panel.

2. A shutter structure comprising a panel and side rails of inwardly facing channel section integral therewith, the inner arms of the side rails projecting forwardly from the panel and projecting beyond the top and bottom edges of the panel, top and bottom bars of rearwardly facing channel section and having out-turned flanges on their inner arms, said bars being disposed with their webs upon and welded to the webs of the side rails and extending to the outer side edges of the side rails and with their inner arms between the side rails, the ends of the panel being disposed outwardly of and upon the said top and bottom bar flanges and welded thereto with their edges abutting the inner arms of the top and bottom bars, the outer arms of the top and bottom bars overlapping the end edges of the outer arms of the side rails and closing the upper and lower ends of the channels of the side rails, the outer arms of the side rails and bars extending substantially rearwardly of the plane of the panel, and a mullion of rearwardly facing channel section disposed upon said panel intermediate said top and bottom bars with its ends abutting the inner sides of the side rails and secured to said panel.

ROBERT L. LEIGH.

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