C. O. WHITNELL.

WINDOW CONSTRUCTION.

APPLICATION FILED FEB. 21, 1917.

1,267,612.

Patented May 28, 1918.

2 SHEETS—SHEET 1.

Fig. 1.

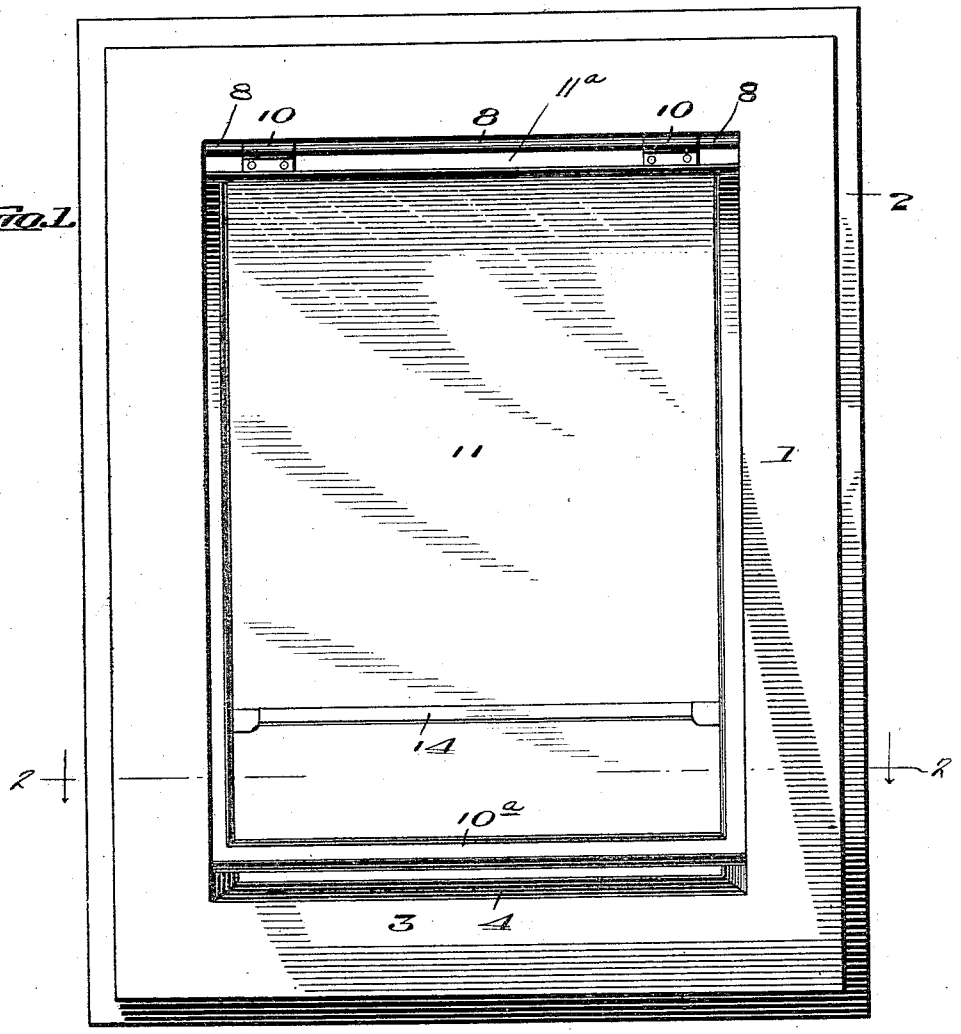
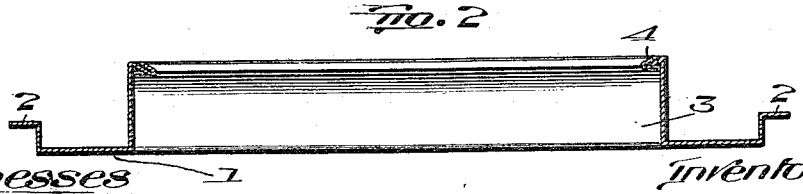


Fig. 2.



Witnesses

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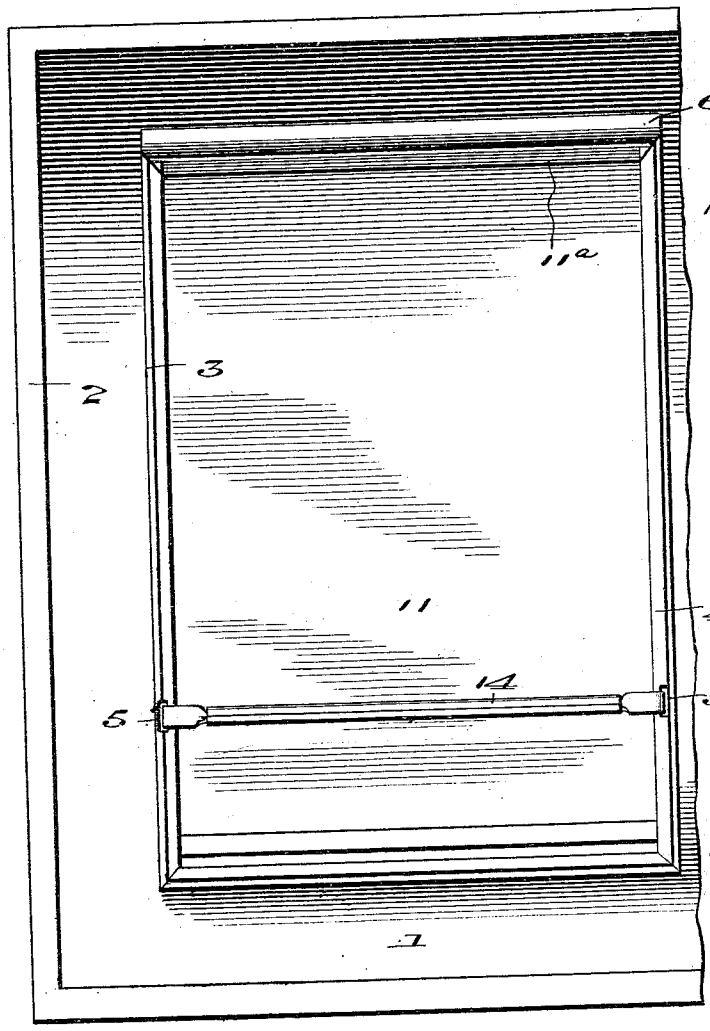


Fig. 3

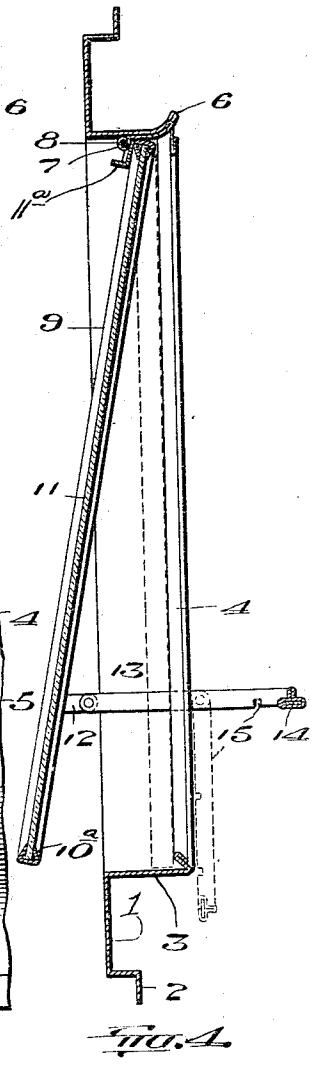


Fig. 4

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UNITED STATES PATENT OFFICE.

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WINDOW CONSTRUCTION.

1,267,612. Specification of Letters Patent. Patented May 28, 1918.

Application filed February 21, 1917. Serial No. 150,091.

To all whom it may concern:

Be it known that I, CHARLES O. WHITNELL, a citizen of the United States, residing at Kingsley, in the county of Plymouth and State of Iowa, have invented new and useful Improvements in Window Constructions, of which the following is a specification.

My present invention pertains to window frames and sashes; and it has for its object to provide a peculiar and advantageous metallic window frame and sash, designed more particularly for incorporation in barns and other farm buildings, and constructed with a view to being readily adjusted for ventilation purposes and to lock or fasten the sash in its closed position.

The sash frame or window frame and the sash are preferably constructed of galvanized sheet iron, and will be fully understood from the following description and claims when the same are read in connection with the drawings accompanying and forming part of this specification, in which:

Figure 1 is a front elevation illustrating my novel construction as it appears from the outside of a building when the sash is secured in an open position.

Fig. 2 is a horizontal section of the window frame taken in the plane indicated by the line 2—2 of Fig. 1 looking downwardly.

Fig. 3 is a broken interior view showing the sash partly open as in Fig. 1.

Fig. 4 is a vertical section illustrating by full lines the manner of adjustably fastening the sash in its open position, and also illustrating by dotted lines the sash as fully closed and as secured in the closed position by the bail-shaped handle.

Similar numerals of reference designate corresponding parts in all of the views of the drawings.

As stated the window frame of my novel construction is preferably formed of sheet metal, and it comprises a face plate 1, a marginal flange 2, of angular form in cross-section, on the same, a flange 3 that reaches inwardly from the face plate and constitutes the sill of the window opening, a stop flange 4 that extends from the lower and side portions of the flange 3, and a flange 6, Fig. 4, that extends upwardly and inwardly from the upper portion of the flange 3 to facilitate the placing of a pane of glass in the sash, the said flange 6 being formed by sheet metal bent upon itself as illustrated and having tubular hinge members 8 at its free edge, as shown in Figs. 1 and 4. In each of the side flanges 4 is an aperture 5, Fig. 3, for a purpose hereinafter set forth.

Connected by a pintle 7 with the tubular hinge members 8 of the window frame are tubular hinge members 10 at the upper end of the sash 9. The said sash 9 is of the vertically swinging type, is preferably formed of galvanized sheet iron, and is provided with lower, side and upper portions of channel-form in cross section, as indicated by 10^a, designed to receive and hold a pane of glass 11. When deemed expedient, however, the upper portion of the sash 9 may be left open so as to permit of the dropping or lowering of a pane of glass into the channel-form side and lower portions. It will also be seen by comparison of Figs. 1, 3 and 4 that the upper portion of the flange 3 is provided with a lip 11^a which depends outside or in front of the upper edge of the pane of glass 11 and is designed to protect said edge as well as to prevent rain beating past the same.

Fixed to the side portions of the swinging sash 9 are lugs 12, and hinged to the said lugs are the arms 13 of a bail-shaped handle 14, which arms 13 are provided in their lower edges with notches 15. The said arms 13 extend loosely through the apertures 5 of the flange 4, and by reason of the notches 15 coöperating with the lower walls of the apertures 5 the sash 9 may be adjustably fixed in open positions. It will also be apparent that when the sash is open as best shown in Fig. 4 air is permitted to freely pass through the window opening without liability of rain beating through said opening. It will further be apparent that when the sash is fully closed, as shown by dotted lines in Fig. 4, and the bail-shaped handle 14 is swung into the pendent position shown against the inner edge of the frame flange 3, the said handle will serve to securely fasten the sash against outward movement.

It will be gathered from the foregoing that my novel window frame and sash is susceptible of being expeditiously and easily manufactured, and while light in weight is well adapted to withstand the rough usage to which devices of corresponding character are ordinarily subjected. It will also be gathered that said window

frame and sash are advantageous because of their fire-proof quality and their capacity to effectually exclude the air when the sash is fully closed and fastened, as shown by dotted lines in Fig. 4. The construction is further advantageous because when the sash is closed it is disposed in the inner portion of the frame flange 3 and is protected to a considerable extent by the frame.

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

1. The combination of a window frame having inwardly-directed upright flanges provided with apertures, a vertically-swinging sash hinged at its upper end to the frame, inwardly extending lugs on the sash; said lugs being constructed and arranged when the sash is closed to extend inwardly through said apertures and beyond said flanges, and a vertically-swinging bail-shaped handle having arms hinged at their ends to the lugs on the sash; said handle being constructed and arranged to rest in pendent position against the flanges of the frame when the sash is closed and thereby fasten the sash against outward movement.

2. The combination of a window frame having apertures in its upright portion, a vertically swinging sash hinged at its upper end to said frame and adapted to close against said upright portion, inwardly extending lugs on the sash constructed and arranged to extend inwardly through said apertures when the sash is closed, and a handle hinged to said lugs and constructed and arranged to rest in pendent position against said frame portion when the sash is closed and thereby fasten the sash against outward movement.

3. The combination of a window frame formed of sheet metal and having a face plate in which is a window opening and also having flanges extending inwardly from the face plate above and below and at opposite sides of said opening and also having stop flanges extending laterally from the inner edges of the lower and side inwardly-extending flanges and further having a downwardly and forwardly extending lip on the upper inwardly-extending flange, a vertically-swinging sash formed of sheet metal and hinged at its upper end to the inner edge of the upper inwardly extending flange of the frame and arranged when closed to bring up against the said stop flanges of the frame; and glass carried by the said sash; the upper end of the sash being disposed back of and above the lower edge of the said lip, for the purpose set forth.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

CHARLES O. WHITNELL.

Witnesses:
JOHN B. PHELPS,
RUTH SMITH.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."