F. HAUSER.

SASH FRAME.

APPLICATION FILED MAR. 29, 1920.

1,420,099. Patented June 20, 1922.

FIG. 1

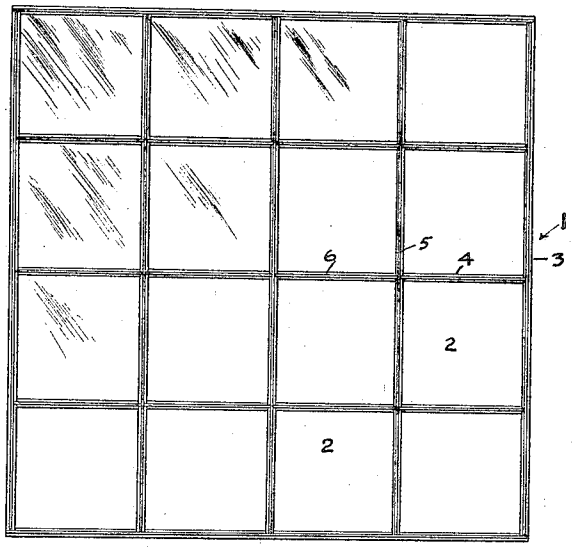


FIG. 2

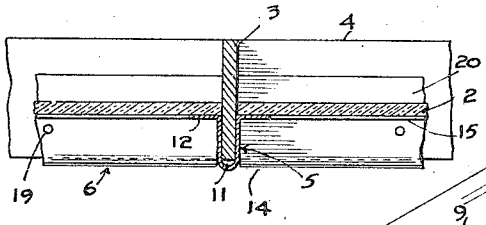


FIG. 3

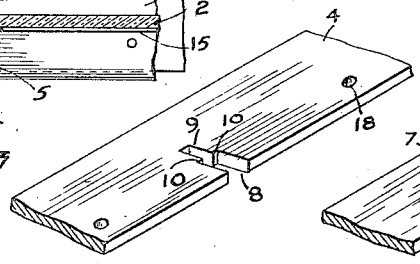


FIG. 4

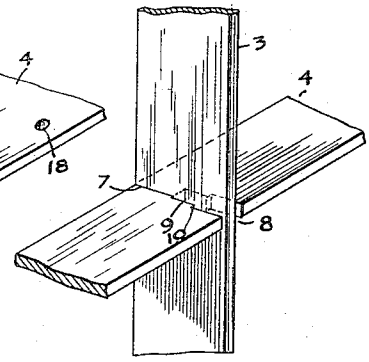


FIG. 5

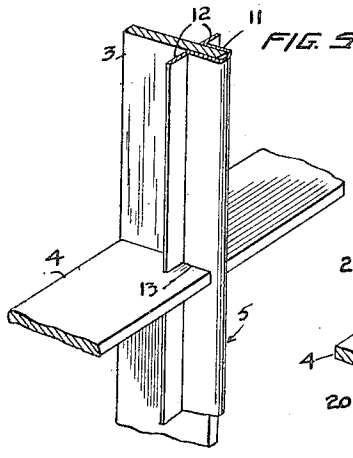
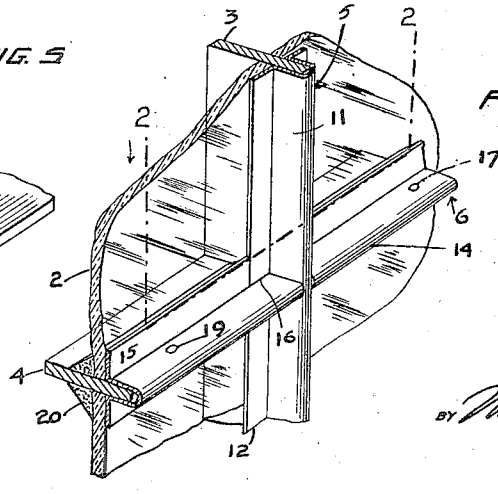


FIG. 6



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SASH FRAME.

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To all whom it may concern:

Be it known that I, FREDERICK HAUSER, a citizen of the United States, residing at San Francisco, in the county of San Francisco and State of California, have invented new and useful Improvements in Sash Frames, of which the following is a specification.

This invention relates to improvements in metallic sash frames and resides in the provision of a relatively cheap, light, strong, and durable frame, which can be easily and quickly assembled or dissembled and when dissembled may be packed or stored in small compass.

An object of the invention is to provide a frame of the character described made up of light, inexpensive, metal parts which parts are constructed so as to interlock and form a rigid strong durable and rust proof sash frame.

The invention possesses other advantages and features, some of which, with the foregoing will be set forth at length in the following description where I shall outline in full, that form of the invention which I have selected for illustration in the drawings accompanying and forming a part of the present specification. In said drawings I have shown one form of the construction of my invention but it is to be understood that I do not limit myself to such form, since the invention as expressed in the claims may be embodied in a plurality of forms.

Referring to the drawings:

Figure 1 is a front elevation of a frame constructed in accordance with this invention.

Figure 2 is a sectional view taken on the line 2—2 of Figure 6.

Figure 3 is a fragmentary perspective view of one of the frame members.

Figure 4 is a fragmentary perspective view of certain frame members shown interfitted.

Figure 5 is a fragmentary perspective view showing certain frame members interfitted and certain members removed.

Figure 6 is a fragmentary perspective view showing the members assembled and supporting glass panes.

The present embodiment of the invention comprises, as shown in Figure 1, a frame 1 supporting glass panes 2, the frame being made up of one piece upright bars 3, one piece cross bars 4, locking strips 5 on the bars 3 and similar strips 6 on the bars 4. These members serve to lock the bars together and with the bars and suitable fastening means, which means in this instance is putty, secure the panes 2 in place, as shown in Figures 1 and 6.

The bars 3 and 4 are formed of flat inexpensive light strap metal and are interfitted to provide frames for the glass panes. The upright bars 3 are provided with a series of suitably spaced horizontal notches or recesses 7, said notches extending substantially one-half the width of the bars and being substantially equal in width to the thickness of the bars. The cross bars 4 are provided at spaced points corresponding to the spacing of the notches or recesses 7 with similar notches or recesses 8. These notches or recesses 8 are wider than the thickness of the metal of the bars, for the most part, but at their inner ends are reduced, as at 9, and are of a width at such reduced portions corresponding to the thickness of the bars, there being provided shoulders 10 by the reducing of said recesses.

In assembling these bars, they are moved into position with the notches 7 and 8 in line with one another so that the notches 7 receive the bars 4 and the notches 8 the bars 3, both of said bars having their longitudinal edges disposed in flush relation, as shown in Figures 2, 5, and 6, of the drawing.

The locking strips are preferably made of galvanized sheet metal bent to provide channels 11 and laterally extending flanges 12, which flanges extend in opposite directions from the open sides of the channels at right angles thereto. At suitably spaced points the flanges 12 are recessed or notched on opposite sides, as at 13. These members 5 are mounted upon the upright bars 3 so that the channels 11 receive said bars, as shown in Figures 2 and 5, and the bars 4 extend through the notches 13 in the flanges 12. The sides of the channels extend into the wider part of the notches 8 between the sides of the bars 3 and sides of said notches. The members 5 clip over and enclose the outer edges of the frame bars 3 and protect said bars against the elements.

The locking strips 6 are made of the same material as the ones 5, but in short sections adapted to fit between the upright bars 3 and members 5. These members 6 are provided with channel portions 14 and flanges 15 corresponding to the members 5. At the ends of the members 6, the channel por-

tions are extended beyond the flanges, as at 16. The members 6 are mounted upon the bars 4 so that the channels 14 clip upon and receive the outer edges of the bars 4 and the end edges of the flanges 15 abut the outer edges of the flanges 12 as shown in Figures 2 and 6. The extended portions 16 of the channels engage upon and overlie the outer faces of the flanges 12 and abut the channel portions 11 of the members 5, thus bringing the outer edges of the channel portions into flush relation with one another and practically covering the entire outer surface of the bars 5 as to protect them against the elements. The portions 16 of the members 6 in engaging upon the members 12 of the members 5, lock said members 5 and the upright bars 3 against withdrawal from interfitting relation with the bars 4. To secure the members 6 in place, there are provided openings 17 in the channel portions 14 thereof, which openings aline with openings 18 in the bars 4. Suitable fastening elements 19 are inserted through said openings so as to secure the members 6 upon the bars 4. The glass panes 2 are mounted with their edges resting upon and engaging the bars 3 and 4, back of the flanges 12 and 15 and by use of putty 20 in the ordinary manner, the panes are secured in position. Any other suitable fastening means, not shown, may be used to secure the panes in place.

It will be seen with reference to the foregoing description and the accompanying drawings, that I have provided a sash frame capable of being readily put together and taken apart, and in which the metal parts which would have a tendency to rust are completely covered by non-rusting metal strips, the latter being constructed so as to lock the frame parts together to provide a light strong and durable sash construction.

I claim: —

1. A metallic sash frame, comprising upright bars, cross bars interfitted with the upright bars, strips extending continuously along outer edges of the upright bars, flanges on said strips disposed on opposite sides of upright bars, strips extending along corresponding edges of the cross bars being separated by said first-named strips with their ends overlying and engaging said flanges, and flanges on the last-named strips, disposed on opposite sides of the cross bars.

2. A metallic sash frame comprising upright bars, having notches therein, cross bars withdrawably mounted in the notches, strips mounted on the upright bars and extending uninterrupted thereon, and strips secured to the cross bars and engaging and overlying opposite sides of the first named strips to lock the bars together.

3. A metallic sash frame comprising upright bars having notches therein, cross bars engaging in the notches, channel strips, receiving the certain longitudinal edges of the upright bars and extending uninterrupted along said upright bars where joined with said cross bars, flanges extending from opposite sides of the strips, similar strips mounted on the cross bars and having flanges terminating short of the ends of the strips and engaging the edges of the first-named flanges, said last named strips having its ends overlying and resting upon the first named flanges and means for securing the last named strips in position.

4. A metal sash frame comprising upright bars, cross bars interfitted with said upright bars, channeled sheet metal strips receiving certain longitudinal edges of the upright bars, lateral flanges on opposite sides of the strip, said flanges being notched, and receiving said cross bars, channelled strips receiving certain longitudinal edges of the cross bars and having their ends overlying the flanges of the first-named strips, means to secure said last-named channeled strips to said cross bars and lateral flanges on said last named strips abutting at their ends the edges of the first named flanges.

FREDERICK HAUSER.