May 8, 1928. 1,668,564

R. W. JENKINS

FRAME FOR WINDOWS, SKYLIGHTS, AND THE LIKE

Filed Jan. 26, 1927

Fig. 1.

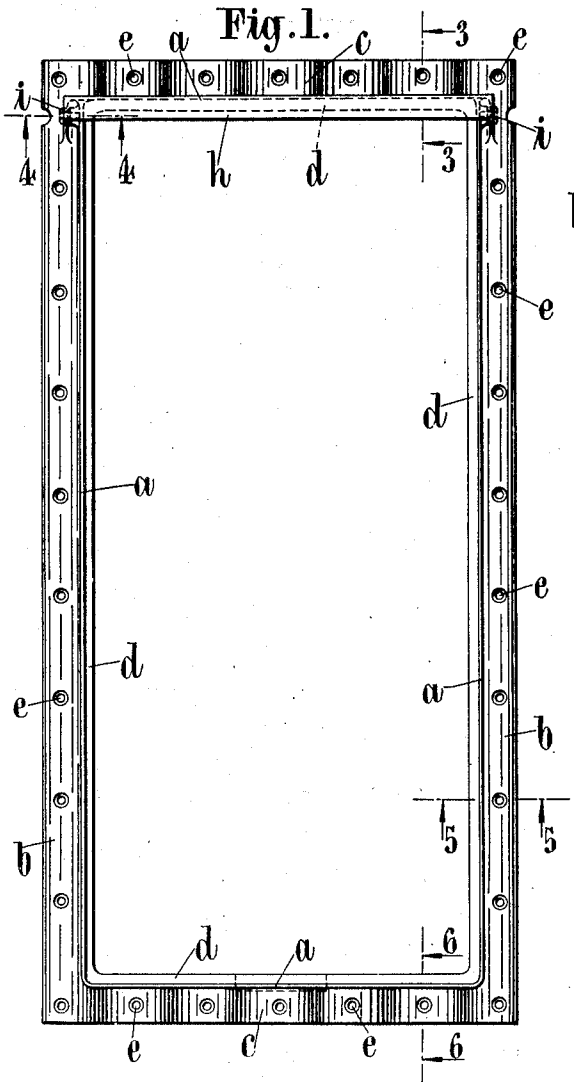


Fig. 2.



Fig. 3.

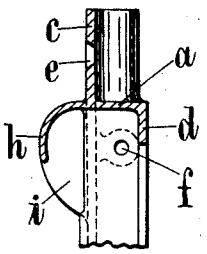


Fig. 4.

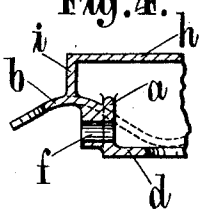


Fig. 5.

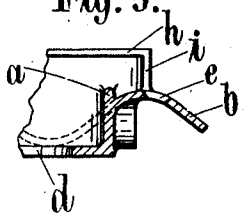
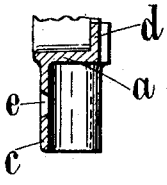


Fig. 6.



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UNITED STATES PATENT OFFICE.

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FRAME FOR WINDOWS, SKYLIGHTS, AND THE LIKE.

Application filed January 26, 1927, Serial No. 163,788, and in Great Britain February 18, 1926.

This invention relates to a metal frame intended to be inserted in or around an aperture in a sheet of corrugated sheet metal or other sheet material for the purpose of holding a pane of glass, to form, for example, a window or skylight, or of holding a flange or like part of a structure to be associated with the said aperture.

According to this invention, the frame is adapted for attachment to a corrugated sheet by providing at the top, bottom or sides of this frame, ledges which are respectively of corrugated form of suitable pitch to fit to the corrugations of the sheet into which the said frame is to be inserted. Beads or ledges with surfaces of flat or other convenient form are provided around the interior walls of the frame to hold the bed on which the panes of glass or the like can be held.

When this frame is used as a skylight or window frame provided with means for allowing the skylight or window to be opened, rain is liable to collect in the joint between the upper edge of the sash and the frame, and in order to guard against entrance of rain at this joint a hood may be provided formed integrally with the frame, or riveted or brazed thereto.

The accompanying drawing shows how the said invention can be conveniently carried into practice:—

Figure 1 is a plan view of a frame constructed in accordance with this invention.

Figure 2 is an end view thereof.

Figures 3, 4, 5 and 6 show sections taken on the line 3—3, 4—4, 5—5, 6—6, respectively, drawn to a larger scale.

As shown in this drawing, the sides and ends of the improved frame comprise ribs *a* having on their outer sides flanges *b* and *c* which are curved so that they can fit closely or be secured to or in ridges or grooves of the corrugated sheet to which the frame is to be attached. The side flanges *b* are corrugated in the direction of their length as shown in Figures 4 and 5, whilst the end flanges *c* are corrugated in a direction transverse to their length as shown in Figure 2. On the insides of the ribs, flat flanges *d* are provided as a bed for the glass or sash to be held therein. The exterior flanges *b* and *c* can conveniently be provided with holes *e* so that the frame can be riveted or bolted in the aperture in the corrugated sheet, or these parts can be attached together by electric or spot welding, brazing or in any other convenient manner. The space enclosed within the frame can be divided by longitudinal and transverse ribs or beads so as to hold separate sheets or panes of glass, sashes or other structures to be associated with the opening bordered by the frame.

When the frame is to be used as a skylight or window frame it is sometimes required to mount the sash in such a manner that it can be opened. For this purpose, at convenient parts of the frame, holes *f*, Figures 3 and 4, can be provided in the sides of the frame to receive pivot studs on which a sash can be mounted to rotate to open and close the same. Alternatively the sash may be rotatably mounted on hinges fixed to the flanges *d*, or in any other convenient manner. With this arrangement, in some cases, the joint between the upper edge of the sash and the frame cannot be made weatherproof, and in order to guard against the entrance of rain-water into the interior of the chamber in the wall or roof of which the frame is fitted, a hood *h* is provided which may be formed integrally with the frame, as shown in Figure 3, extending outwardly from the exterior face of the frame. This hood may be of any convenient form, curved or straight in cross-section, and end webs *i* may be provided supporting the hood *h* or curtain web extending between them. If desired the frame can be made without the hood *h*, both ends of the frame being made like that shown in the lower part of Figure 1.

The frame can conveniently be fitted to sheets of galvanized iron, asbestos protected metal, composition coated or cement asbestos, or like material, such as is used for the roofs or walls of buildings, and the frame itself can be made of cast, rolled or pressed metal, or of similar material to that of the sheet into which it is to be fixed.

Instead of being employed to hold a pane or panes of glass, the frame may be made of suitable shape to serve as a foundation or support for a shutter, ventilator, air-trunk or other structure associated with the opening through the corrugated sheet, the space within the ribs *a* being subdivided as may be required.

The invention can moreover be applied for use with sheets of other than corrugated

form, for example, flat sheets having longitudinal, transverse or oblique stiffening or reinforcing beads or ridges formed therein, and in this case, the outer flanges *b*, *c* at the sides, top and bottom of the frame are made of appropriate contour to correspond with the shape of the said sheet at the parts in which they are to be inserted.

I claim—

1. A supporting frame of the character described having top, bottom and side ribs or walls forming an opening through which a glass or the like is capable of being inserted bodily, flanges extended inwardly from said ribs or walls to form a bed for said glass, flanges extended outwardly from said ribs or walls and provided with corrugations to co-operate with the corrugations of a supporting member having an opening to which said frame is fitted.

2. A supporting frame of the character described having top, bottom and side ribs or walls forming an opening through which a glass or the like is capable of being inserted bodily, flanges extended inwardly from said ribs or walls to form a bed for said glass, flanges extended outwardly from said ribs or walls and provided with corrugations to co-operate with the corrugations of a supporting member having an opening to which said frame is fitted, and a hood attached to the top of said frame and projecting outwardly therefrom and below the top rib or wall thereof.

3. A supporting frame of the character described having top, bottom and side ribs or walls attached to one another to be handled as one piece and forming at the front of the frame an opening extending from top to bottom and from side to side through which a glass or the like of substantially the size of the opening is capable of being inserted bodily and unobstructedly into the frame, flanges extended inwardly from said ribs or walls to leave the opening at the front of the frame of the full internal area of the frame and to form at the rear of the opening a bed for said glass, flanges extended outwardly from said ribs or walls, and a hood projecting from said frame at the top thereof.

In testimony whereof, I have signed my name to this specification.

REGINALD WILLIAM JENKINS.