P. LA FRAMBOISE.

WINDOW CONSTRUCTION.

APPLICATION FILED NOV. 18, 1911.

1,125,504. Patented Jan. 19, 1915.

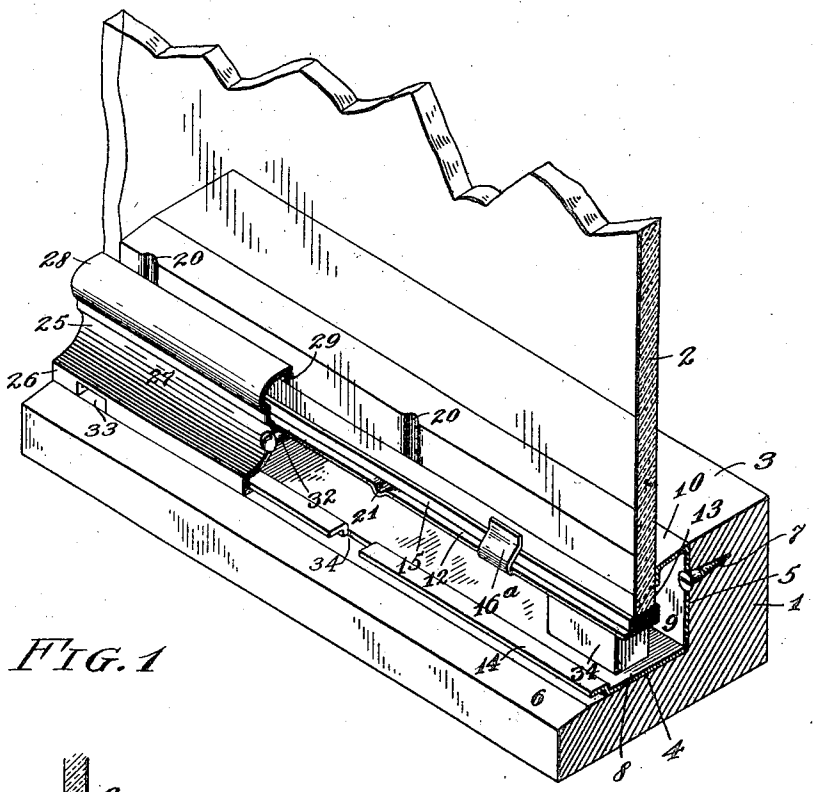


FIG. 1

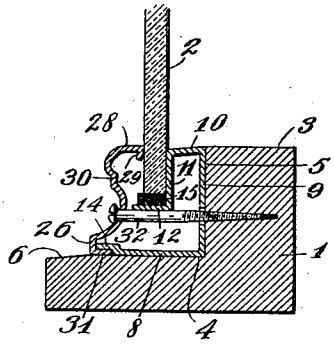


FIG. 2

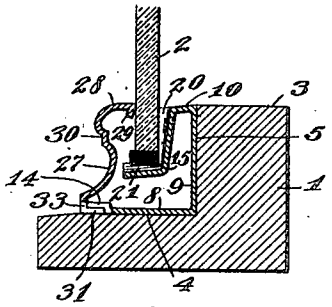


FIG. 4

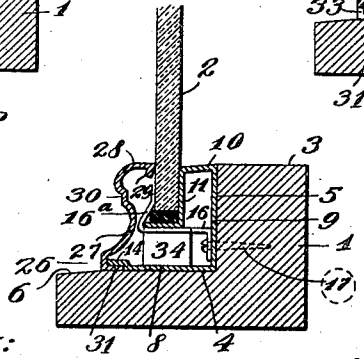


FIG. 3

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WINDOW CONSTRUCTION.

1,125,504. Specification of Letters Patent. Patented Jan. 19, 1915.

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To all whom it may concern:

Be it known that I, PHILIP LA FRAMBOISE, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented a certain new and useful Improvement in Window Construction, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings.

This invention relates to window, show case, or store front constructions, and has for its object the provision of a device whereby the sheet of plate or other heavy glass ordinarily used in such cases can be rapidly, and economically installed and securely supported.

Another object is to provide a supporting and fastening device comprising a minimum number of parts, which parts shall be adapted for cheap and rapid production, and in which provision shall be made for discharging water condensing upon the inner surface of the glass or applied thereto in washing the same, and for permitting such circulation of air as shall prevent decay or corrosion of the parts or of articles adjacent thereto, while shielding the same from the action of the elements.

Other objects and advantages of my invention will appear from the following description and claims.

One embodiment of my invention is illustrated in the accompanying drawings in which:

Figure 1 is a perspective view of a portion of a window frame, showing the glass in place, a part of the covering being broken away; Fig. 2 is a cross-sectional view taken along the line of the covering retaining screw; Fig. 3 is a similar cross-sectional view taken immediately adjacent one of the glass retaining clips; and Fig. 4 a similar cross-sectional view taken through one of the drainage and ventilation notches.

Although my invention is illustrated and described in connection with a window, it will be obvious that it may be employed in connection with show cases, store fronts, mirrors, metallic wainscoting, or other similar situation and the following description and claims should be read with this in view.

Describing the drawings by reference characters, 1 denotes the base or side casing of a window, store front, show case, or mirror frame in which a plate glass or other flat member 2 is to be secured, the inner surface of such frame or casing being indicated at 3. The forward edge of this casing is formed with a right angular recess having a horizontal base 4 and a vertical rear wall or shoulder 5, the base of such recess preferably terminating in a forwardly sloping portion 6. In this recess is secured, as by screws 7 a hollow metallic molding which forms a seating for the member 2 and constitutes one of the important features of my invention. This molding comprises a flat base 8 adapted to rest upon the base 4 of the recess having at its rear edge the upwardly extending rear wall 9 adapted to rest against the shoulder 5 of said recess and having perforations therein for the screw 7. At a point not higher than the inner surface 3 of the casing this rear wall is provided with a forwardly projecting downwardly inclined flange 10 having at its forward edge a skirt or apron 11 substantially parallel with the wall 9 terminating in a forwardly projecting shelf 12 parallel to the base 8 and spaced thereabove. This construction provides a second smaller recess having its walls parallel to the first recess and spaced therefrom. The skirt or apron 11 is preferably provided with perforations 13 opposite the screws 7 so as to permit the insertion thereof, and the forward edge of the base 8 is preferably provided with an upwardly offset portion 14 for a purpose to be hereinafter explained. This molding having been secured in the recess in the casing as above indicated is then in condition to receive the plate glass or flat member 2, a cushion 15 of leather, rubber, or the like being interposed between the edge thereof and the top of the shelf 12. This plate or member is then secured in place by means of clips 16 secured to the rear wall 9 of the molding by means of screws 17 projecting into the casing, and having their forward edges turned upwardly to form fingers 16^a passing around the forward end of the shelf and engaging the outer surface of the member or plate.

In order to permit drainage from the trough formed between the inclined upper wall 10 of the molding and the rear surface of the plate 2 at the bottom of the window and to permit ventilation at other points, grooves or channels 20 are formed at intervals in the skirt or apron 11 of the molding, said notches merging with like notches 21 formed in the shelf 12, the bottoms of the latter notches preferably being inclined out-

wardly, as shown in Fig. 4, so that moisture passing therethrough may be discharged from the forward edge thereof instead of running along the bottom of said shelf. These grooves or channels are preferably formed by pressing the metal in dies and without perforating the same.

In order to complete the sash supporting rail and form a finished and attractive exterior to the window or show case, a metallic covering 25 is now applied to the molding and plate, said covering preferably comprising a vertical edge 26, concave wall portion 27, and flat top 28, said top being provided with a downturned angular lip 29 which is bent at a slightly acute angle, as shown. The transition from the curved portion 27 to the flat portion 28 is preferably made by means of a plurality of steps or beads 30, as shown, both for elegance and for the purpose of rendering the covering slightly stiffer at this point. The relation between the top and bottom edges of this covering is such that, with a plate 2 of normal thickness, the edges of the covering will contact the surface of the plate and the edges of the bent portions 14 simultaneously. If the plate varies from this thickness such variation is taken up by the flexibility of the concave portion 27 of the covering, since the flat top 28 and the ribs or corrugations 30 prevent distortion at any other point. The variation in thickness of the plate may serve to tilt the surface 28 slightly out of horizontal, but the acute angular character of the lip 29 maintains a clean joint at the surface of the glass, notwithstanding such tilting. The height of the covering 25 is preferably substantially equal to that of the bottom of the trough formed by the flange 10 but may vary above or below this point without materially affecting the device. It is desirable, however, that it be high enough to hide the perforations 13 and not so high as to show the bottom of the lip 29 through the inside of the glass. Within these limits its height is largely a matter of choice though it is preferable to have the tops of the molding and of the covering substantially even.

The lower edge of the vertical portion 26 is formed with a horizontal lip 31 adapted to fit beneath and interlock with the portion 14 as illustrated, thereby efficiently preventing the warping or springing of the covering 25 and providing a casing that cannot become distorted or unsightly. The lip 31 also decreases the tendency of the covering to warp and twist during transportation. This covering is secured in place by means of long screws 32 passing through the concave portion 27 thereof and beneath the shelf 12 into engagement with the casing 1, the rear wall 9 of the molding being suitably perforated for the passage of the screws. This position of the screws utilizes the flexibility of the covering to its fullest extent. Slots or perforations 33 are formed through the portion 26 of the covering to permit the discharge of water and the circulation of air. These slots may, if desired, take the form of simple apertures through the vertical wall of the covering, but are preferably formed as notches passing through the lip 31. The portion 14 is also formed with notches 34 adapted to register therewith, these notches being formed opposite to the grooves or channels 21, and being continued as far as the flat base 8 of the molding so that the same may be thoroughly drained.

Inasmuch as a sheet of plate glass is very heavy it is usually necessary to support or brace the shelf 12, especially in view of the fact that such bracing or supporting permits the use of thinner or lighter metal than could otherwise be employed. For this purpose, I employ blocks which may be either of solid metal, as shown, or may be made in skeleton form where lightness is particularly desired. The same result could be attained by making the bracing means integral with the molding as by bending downwardly the edge of the shelf.

The major part of the duty of securing the plate in place is performed by the clips 16, which are made of comparatively stiff metal, thus permitting the use of lighter, thinner, cheaper and more easily worked metal for the covering than would otherwise be the case, while the covering 25 serves more particularly for shielding and concealing the joints between the plate, molding and seat. Furthermore, the use of these clips markedly facilitates the securing of the glass in place since the workman has but a single small member to fix in place while supporting the plate instead of being compelled to manage a long and awkward strip. It will be understood, however, that the device would be entirely operative even without these members and that their omission would not of itself avoid the scope of my invention. It will also be understood that, while I have necessarily described my invention in detail, I do not propose to be limited to such details except as the same may be positively included in the claims hereto annexed or may be rendered necessary by the prior state of the art.

Having thus described my invention, what I claim is:

1. The combination, with a casing having a seat and a perpendicular shoulder adjacent to said seat, of a molding shaped to fit in the angle between said seat and said shoulder and having a recess, the sides of which are substantially parallel with said seat and shoulder respectively, means for securing said molding in said seat and

clamping the rear face thereof against said vertical shoulder, a plate in said recess and parallel with said shoulder, and clips attached to said molding beneath said recess and engaging the front surface of said plate and clamping said plate against the rear wall of said recess.

2. In a device of the character described, in combination, a metallic molding comprising a pair of angularly related outer sides, a top at the edge of one of said sides, a skirt or apron at one edge of said top and parallel to one of said first sides, and a shelf at the edge of said skirt or apron and substantially parallel to the other of said first sides, said skirt or apron and said shelf forming a plate receiving recess, and a plate securing clip adapted to be secured against one of the outer sides of said molding and to pass beneath said shelf, and having its end bent to engage said plate adjacent to said shelf.

3. The combination, with a casing having a seat and a perpendicular shoulder adjacent to said seat, of a metallic molding having sheet metal sides shaped to fit in the angle between said seat and said shoulder and having a top not higher than the inside of said casing, said top being inclined downwardly and forwardly and terminating in a skirt or apron substantially parallel with said shoulder, a shelf secured to the inner edge of said skirt or apron substantially parallel with said seat and spaced therefrom, means bracing said shelf away from said seat, a plate on said shelf and engaging said skirt or apron, a metallic covering embracing said plate opposite said skirt or apron and inclosing said plate securing means, and means independent of said covering for securing said plate in position.

4. A metallic molding for the purpose described, comprising a pair of right angularly related outer members and a pair of right angularly related inner members parallel to and spaced from said outer members, respectively, and an inclined top member connecting the edges of similar outer and inner members, said inner members defining a plate receiving recess, a plate holding clip adapted to be secured against one of said outer members and to engage the surface of a plate to hold the same in said recess, and a metallic covering adapted to engage the plate opposite said top member and cover said holding clips.

5. The combination, with a casing having a seat and an abrupt shoulder adjacent to said seat, of a metallic molding having sheet metal sides adapted to fit in the angle between said seat and said shoulder and having a downwardly inclined top projecting forwardly from one of said sides and terminating in a depending skirt or apron substantially perpendicular to said seat, a shelf secured to the lower edge of said skirt or apron substantially parallel to said seat and spaced therefrom, the edge of the molding side which is parallel with said shelf being extended farther than said shelf and formed with an upwardly offset portion, a plate on said shelf and engaging said skirt or apron, a metallic covering member embracing said plate opposite said skirt or apron and having a lateral lip inserted beneath said offset portion, and means for drawing said covering against said plate and against the edge of said molding.

In testimony whereof, I hereunto affix my signature in the presence of two witnesses.

PHILIP LA FRAMBOISE.

Witnesses:

BRENNAN B. WEST,

HAROLD E. SMITH.