

July 12, 1949.

E. F. TONEY
STORE FRONT MOUNTING

2,475,682

Filed May 26, 1945

2 Sheets-Sheet 1

Fig. 1.

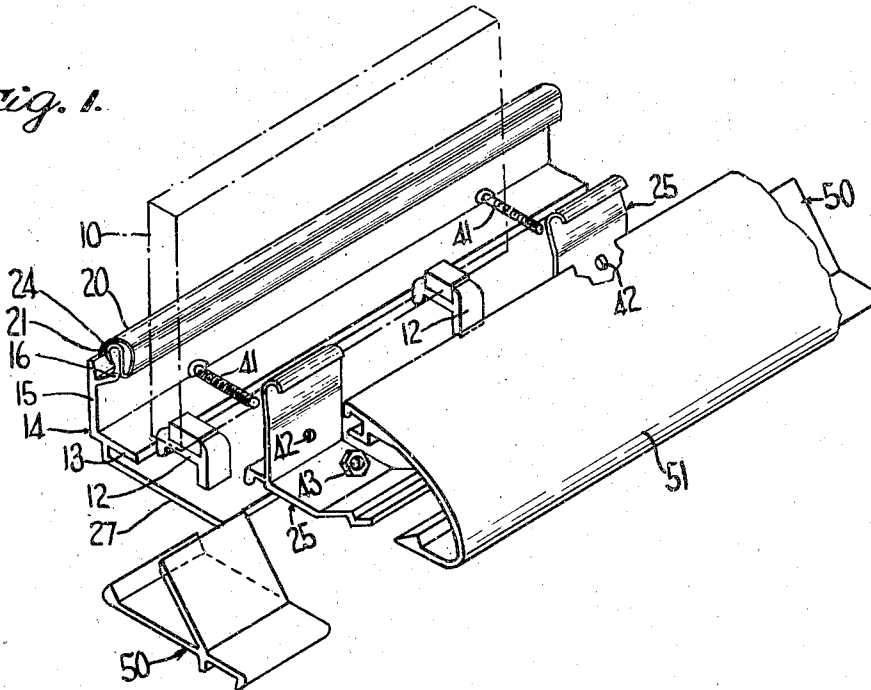
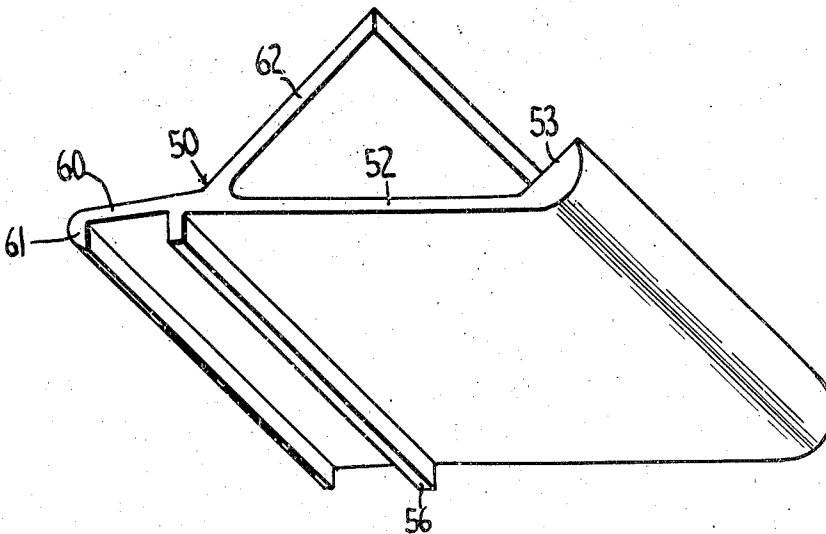


Fig. 2.



Inventor
Edward F. Toney

By

Olen E. Bee
Attorney

July 12, 1949.

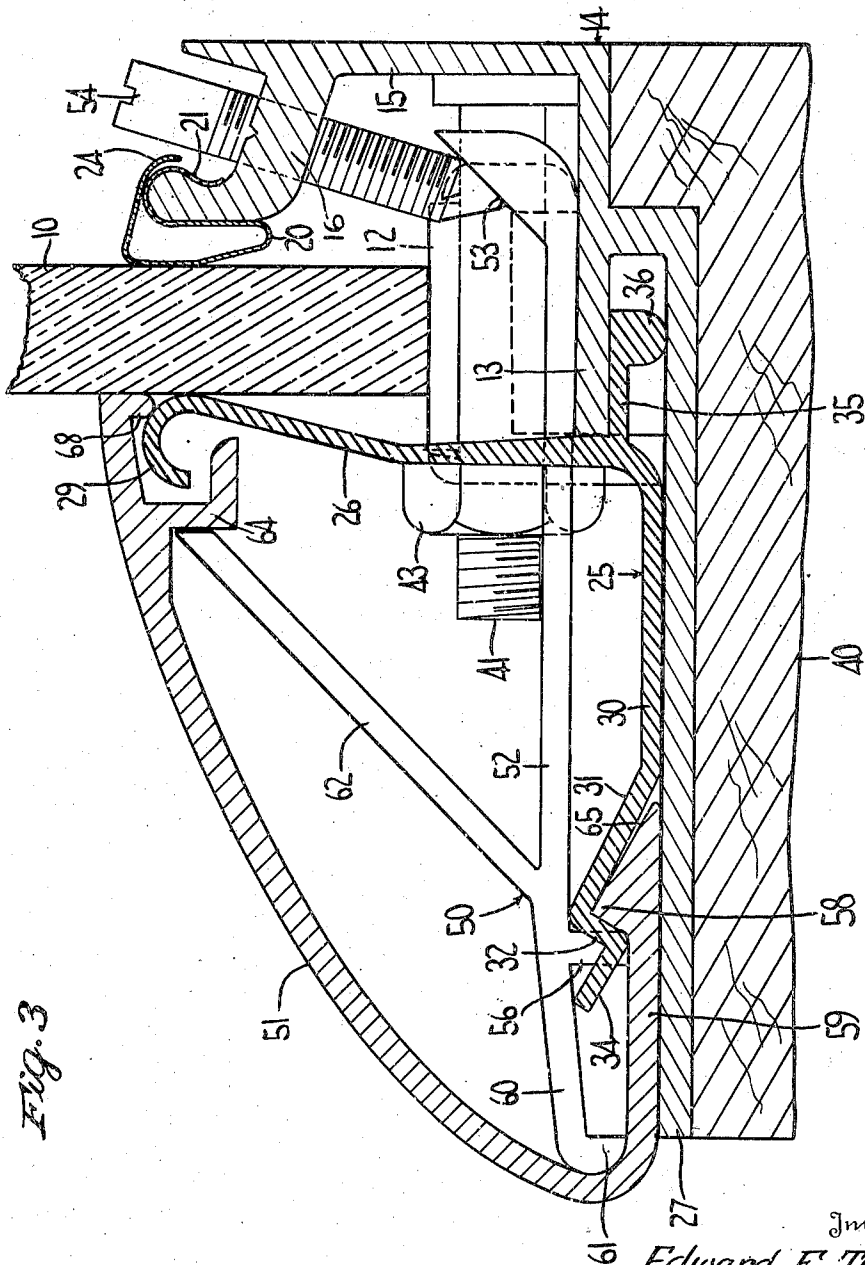
E. F. TONEY

2,475,682

STORE FRONT MOUNTING

Filed May 26, 1945

2 Sheets-Sheet 2



27 Inventor.
Edward F. Toney

By

Olen E Bee
Attorney

UNITED STATES PATENT OFFICE

2,475,682

STORE FRONT MOUNTING

Edward F. Toney, Pittsburgh, Pa., assignor to
Pittsburgh Plate Glass Company, Allegheny
County, Pa., a corporation of Pennsylvania

Application May 26, 1945, Serial No. 595,957

1 Claim. (Cl. 20—56.4)

1

This invention relates to store front installations and it has particular relation to molding and fastening constructions employed in mounting store front panels.

One object of the invention is to provide an improved arrangement of molding and fastening elements particularly designed to hold plate glass in proper position in a store front installation.

Another object of the invention is to provide improved demountable fastening elements for securing plate glass panels in a store front installation.

One form of structure in which the invention has been incorporated includes a series of setting blocks spaced along a gutter for supporting and centering a window panel that is held in place by angular clips that have upright flanges extending up the face of the panel and have substantially horizontal flanges extending outwardly from the panel to be connected to a face molding. Bolts also extend through the upright flange of each clip from the gutter and are anchored thereto. A series of locking lugs are formed with a plurality of flanges that engage the upper and lower inner portions of the molding. Each locking lug also has an arm extending underneath the panel to be engaged in camming or wedging relation by a bolt which is threaded at an angle through a stationary portion of the gutter at the rear of the panel. A cushioning channel of resilient metal is mounted on the gutter and engages the rear side of the panel.

In the drawing, Fig. 1 is a fragmentary perspective of elements of a store front installation arranged in partially disassembled relation; Fig. 2 is a perspective of one of the locking lugs employed in the mounting of the store front panel; and Fig. 3 is a vertical section, on a larger scale, of the assembled elements of the store front installation.

In practicing the invention, an upright panel 10, such as a plate glass store front window, is positioned upon setting blocks 12 which are disposed upon a horizontal ledge 13 of an angular gutter 14. An upright rear flange 15 of the gutter has at its upper extremity an angular integral section 16 turned toward the rear surface of the panel and upon which a cushion 20 in the form of a channel of resilient sheet metal is snapped. The metal channel has a reversely bent section 21 which facilitates snapping and retention thereof upon the upper edge portion of the section 16. A free marginal portion 24 of the channel overlaps the reversely bent section to insure free

2

springing action of the channel against the rear side of the window panel.

A plurality of angular clips 25 are disposed along the gutter and have upright resilient arms 26 which rest against the front side of the window panel 10. A lower horizontal flange 27 of the gutter is offset downwardly from the ledge 13 and extends forwardly a considerable distance beyond the edge of the ledge. The upper edge of the arm 26 of each clip has an outwardly turned flange 29 which is hook-shaped in cross section. A substantially horizontal resilient arm 30 of the clip 25 has an outer marginal portion 31 inclined upwardly and then inclined downwardly to form a locking shoulder 32. The outer extremity of the arm is also finally inclined upwardly to form a flange 34.

Adjacent the junction of the arms 26 and 30, a rearwardly projecting flange 35 having a bead 36 formed on its outer edge fits underneath the ledge 13 between such ledge and the lower flange 27. The arm 30 of each clip rests upon the lower offset flange 27 of the gutter. The flange and ledge thus prevent the clip from tilting after the projection 35 has been inserted in the space between them. The gutter is permanently mounted upon a frame or base 40 which surrounds the store front panel.

Horizontally disposed bolts 41 are secured at intervals to the upright flange 15 of the gutter by welding, or other conventional connections, and extend beneath the lower edge of the window panel 10. These bolts project through openings 42 in the upright arms 26 of the clips which are thus in position to be tightened against the front side of the window panel by means of nuts 43 threaded on the bolts. In this relation of the elements the lower portion of the clip abuts the outer edge of the ledge 13. This arrangement of elements provides a resilient clamping structure for maintaining the marginal portion of the window panel in properly aligned position. The panel is positively prevented from being displaced beyond the slight variations of movement permitted by the resiliency of the mounting.

A plurality of locking lugs 50 which serve to hold a face molding 51 in place, and together with this molding, they prevent access to the bolts 41 from the outside of the panel until released from the inside in a manner to be described. Each of these locking lugs includes a substantially horizontal arm 52 which rests at its rear portion upon the relatively narrow horizontal ledge 13 of the gutter and its rear extremity is formed with an upwardly and rear-

3

wardly inclined surface 53 which is engaged by a fastener 54, such as a screw bolt, threaded through the flange section 16 of the upright flange of the gutter. By tightening the fastener 54, it is wedged against the inclined surface 53 and draws the lug rearwardly until the elements connected thereto are firmly assembled. The locking lugs 50 can be inserted in the face molding 51 from the ends thereof before these two members are mounted in the assembly. In such an arrangement, a downwardly extending rib 56 engages behind a rib 58 of a lower inwardly turned flange 59 of the molding. A horizontal extension 60 of the arm 52 terminates in a bead 61 which fits into the lower corner or inwardly curved bottom of the molding 51. The locking lug is also formed with an upwardly inclined arm 62, the extremity of which fits behind an inwardly turned flange 64 adjacent the upper inside portion of the molding 51 but spaced back slightly from the extremity thereof. It will be observed that the locking lugs cannot be displaced laterally from the molding but must be inserted in and removed from the ends thereof.

In applying the molding and locking lugs fitted therein to the assembly, the lower inwardly turned molding flange 59 is forced underneath the outer marginal portions of the clips until the bead 58 snaps behind the shoulder 32. In this operation an inclined surface 55 leading to the extremity of the molding flange 59 springs the clip arm 30 upwardly until the rib 58 snaps behind the shoulder 32. During this operation, an inwardly turned bead 68 at the upper extremity of the molding snaps over the reversed and rounded flange 29 at the upper extremity of the clip arm 26.

After the molding has been snapped in place in this manner, the fastener 54 for each locking lug is tightened and the entire assembly of elements is then firmly secured together. These elements can be demounted only by first releasing the fasteners 54 from their engagement with the inclined surfaces 53. It is to be understood that the setting blocks 12, clips 25, and

4

locking lugs 50 are spaced from one another along the length of the gutter 14. It is also to be understood that, with the exception of the setting blocks 12, these members are applied entirely around the perimeter of the window panel.

Although only one form of the invention has been shown and described in detail, it will be apparent to those skilled in the art that the invention is not so limited but that various changes can be made therein without departing from the spirit and scope of the invention within the definitions contained in the appended claim.

I claim:

In a store front construction for supporting an upright window panel, a gutter having upright and horizontal sections, clips bolted to the upright section to hold the window panel between the clips and section, a channel molding having an inwardly turned bead at its upper extremity and having a flange spaced from the bead, said channel molding having an inwardly turned lower flange with a rib formed adjacent the extremity of said flange, a locking lug having an extension disposed along the lower flange of the channel molding and locked behind said rib, said lug having an upwardly inclined arm locked behind the flange on the channel molding to cooperate with said extension to lock the lug against lateral displacement from the channel, means for anchoring the locking lug to the upright gutter section, the bead on the upper extremity of the channel molding and the rib at the extremity of the lower flange of the channel molding resiliently engaging with the clip in snapped-on relation

EDWARD F. TONEY.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
2,015,769	Toney	Oct. 1, 1935
2,117,978	Oftedal	May 17, 1938
2,185,735	Peterson	Jan. 2, 1940