

C. S. THORNE.
METAL WINDOW SILL.
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932,190.

Patented Aug. 24, 1909.

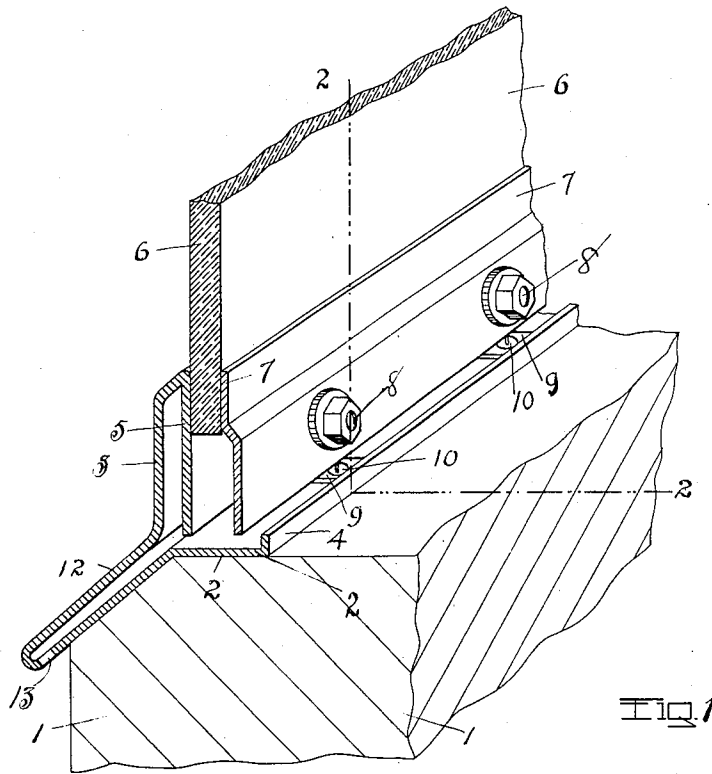


Fig. 1

Fig. 2

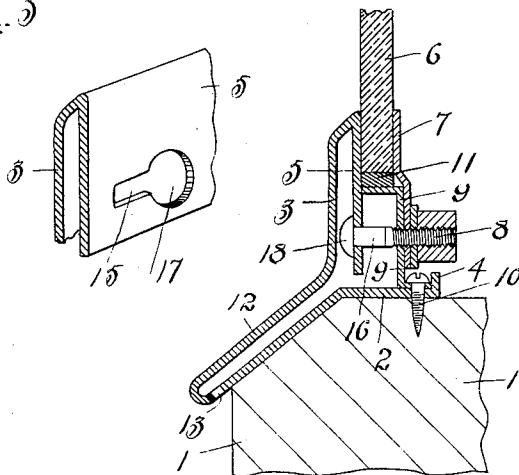


Fig. 2

WITNESSES

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UNITED STATES PATENT OFFICE.

CHARLES S. THORNE, OF TROY, NEW YORK, ASSIGNOR TO THE THORNE HOLD-FAST METAL BAR COMPANY, A CORPORATION OF NEW YORK.

METAL WINDOW-SILL.

932,190.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, CHARLES S. THORNE, a citizen of the United States, residing at Troy, county of Rensselaer, and State of New York, have invented certain new and useful Improvements in Metal Window-Sills, of which the following is a specification.

The invention relates to such improvements and consists of the novel construction and combination of parts hereinafter described and subsequently claimed.

Reference may be had to the accompanying drawings, and the reference characters marked thereon, which form a part of this specification. Similar characters refer to similar parts in the several figures therein.

Figure 1 of the drawings is a view in isometrical perspective of my improved window-sill, showing a piece of window-glass clamped thereupon. Fig. 2 is a vertical cross-section of the same taken through one of the screw-bolt connections. Fig. 3 is a view in perspective of a broken-away portion of the metal sill, illustrating the means for connecting the head of the fastening bolt with the retrovert-portion of the outer flange of the sill.

Certain objects of the invention are to suitably support along its lower edge a plate of window-glass, and to permit the free escape of liquid, due to condensation upon the inner surface of said glass.

Other objects of the invention will appear in connection with the following description.

The invention is applicable to window-sills of various kinds, and is particularly adapted for the sills of show-windows of store-fronts.

Referring to the drawings wherein the invention is shown in preferred form, 1, represents the sub-structure of wood or other material of an ordinary show-window of a store-front. Upon the sub-structure is shown mounted my improved sill. The sill-proper comprises a plate of metal of channeled or trough form, having the bottom or base-plate, 2, and projecting upward therefrom along its opposite edges the outer vertical flange, 3, and inner vertical flange 4. The outer vertical flange, 3, has a retrovert-portion, 5, extending downward, nearly to the base-plate, 2, and is adapted to engage along its upper edge with the front surface

of a plate of glass 6. The plate of glass, 6, 55 is adapted to be held firmly against the retrovert-portion, 5, of the flange, 3, by means of a clamp-plate, 7, and screw-bolts and nuts, 8, inserted through, and adapted to draw toward each other, the retrovert-portion, 5, of 60 the flange, 3, and the clamp-plate, 7, as shown in Fig. 2, and to clamp therebetween the plate-glass 6. The bolts, 8, pass below the plate-glass, 6, and said plate-glass is supported and prevented from contact with the 65 bolts by means of a Z-shaped metal-plate, 9, one end of which underlies the plate-glass, and the other end of which bears upon the base-plate, 2, and is held by a screw, 10, inserted therethrough, and through said base-plate into the sub-structure, 1, thereby retaining both said Z-shaped plate and the sill-proper in position upon the sub-structure. A packing, 11, of leather or other yielding 75 material may be interposed between the bottom edge of the plate-glass, 6, and said Z-shaped plate. Said Z-shaped plates are disposed beneath the plate-glass at suitable intervals to properly support the same.

The clamp-plate, 7, extends to within a 80 short distance of the base-plate, 2, leaving in the intervals between the Z-shaped supporting plates, 9, a free space just above the base-plate, 2, between the flanges, 4 and 3, thereof. The flange, 4, which is the inner 85 flange of the base-plate, 2, projects upward a sufficient distance to catch and retain any liquid drip resulting from condensation of moisture upon the inner surface of the plate-glass, and said liquid is free to flow beneath 90 the clamp-plate, 7, and retrovert-portion, 5, of the outer flange, 3, to the outer end of the base-plate, 2, whereat means for the escape of such liquid is provided. As a preferred 95 means for the escape of such liquid, I have shown as an integral part of the sill a gutter, 12, projecting downwardly and outwardly to a point slightly beyond the sub-structure, 1, and provided at its outer and lower end with one or more outlet-openings, 13, for the 100 free escape of such liquid.

By the construction above described, the plate-glass is substantially yet yieldingly supported, suitable ventilation is afforded to the show-window, and a free escape is provided for any liquids of condensation. By 105 thus providing for proper ventilation of the structure, and for the escape of any liquids

of condensation, I am able to greatly prolong the life of the immediate sub-structure, if made of wood.

To facilitate the connecting of the head of the fastening bolt, 8, with the retrovert-portion, 5, of the outer flange, 3, I have shown said retrovert-portion provided with a slotted seat, 15, adapted to receive a square portion, 16, of the fastening bolt, said slot opening into an enlarged aperture, 17, adapted to freely receive the head, 18, of said bolt. In applying the bolt, the head is thrust through the aperture, 17, and the shank of the bolt adjacent to the head is slid along the slot, 15, to the end thereof. By connecting the attaching bolt with the retrovert-portion of an outer flange on the sill, as shown, I am able to securely clamp the glass in position without the use of exteriorly exposed fastening mechanism.

What I claim as new and desire to secure by Letters Patent is—

1. A metal window-sill comprising in an integral structure a base-plate, a flange projecting upward therefrom along the outer edge thereof having a retrovert terminal-portion engageable with the outer side of a plate of glass mounted upon said sill, in combination with a clamp-plate engageable with the inner side of said plate of glass, said clamp-plate and said retrovert terminal-portion depending below the lower edge of said glass; and horizontal connections between the so-depending portions of said clamp-plate and of the retrovert terminal-portion of said flange.

2. A metal window-sill comprising in an integral structure a base-plate, a flange projecting upward therefrom along the outer edge thereof having a retrovert terminal-portion engageable with the outer side of a plate of glass mounted upon said sill, said termi-

nal-portion depending below the lower edge of said glass, and being provided in its so-depending portion with a screw-head aperture and a slot leading therefrom, in combination with a clamp-plate engageable with the inner side of said plate of glass, and having a portion depending below the edge of said glass; a screw extending transversely beneath the lower edge of said glass, with its head seated in the slotted retrovert terminal-portion of said flange; and a nut fitting said screw and engageable with the depending portion of said clamp-plate.

3. In a window-construction, and in combination, a sub-structure; a metal sill mounted upon said sub-structure, and comprising in integral form a base-plate, a flange projecting upward therefrom along the inner edge thereof, a flange projecting upward therefrom along the outer edge thereof having a retrovert-portion adapted to engage the outer side of a plate of glass mounted upon said sill, and a gutter extending obliquely downward and outward from the base of said outer flange to a point beyond said sub-structure whereat it is provided with a drip-outlet; a clamp-plate adapted to engage the inner side of said plate of glass; and horizontal screw-connections beneath said glass between said clamp-plate and the retrovert-portion of said outer flange, said clamp-plate and retrovert-portion of said outer flange lying between the vertical planes of said inner and outer flanges, and a free drip-space being provided between said inner flange and said gutter.

In testimony whereof, I have hereunto set my hand this 9th day of February, 1909.

CHARLES S. THORNE.

Witnesses:

FRANK C. CURTIS,
J. DONSBACH.