A. J. PADDACK.

HANGER FOR STORM WINDOWS AND THE LIKE.

APPLICATION FILED NOV. 4, 1912.

1,071,950. Patented Sept. 2, 1913.

Fig. 2.

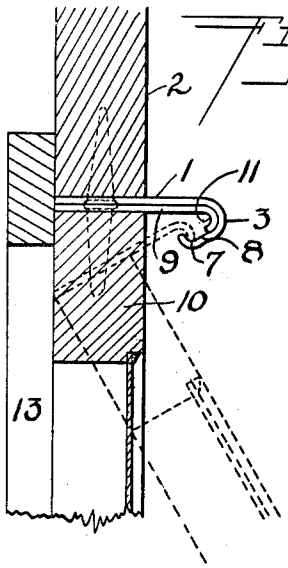
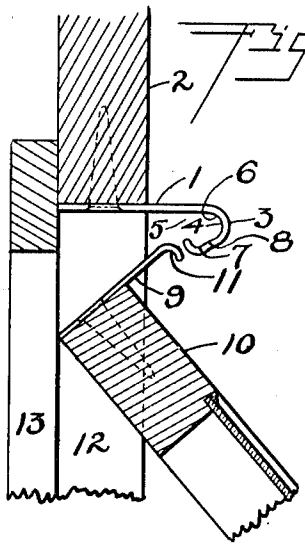


Fig. 3.



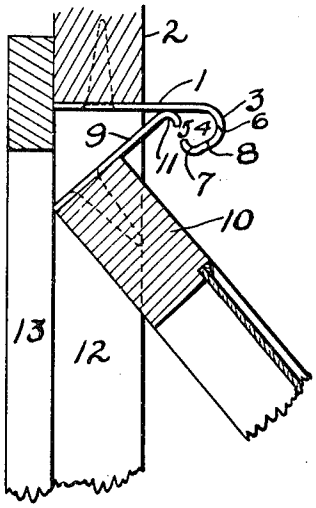


Fig. 4.

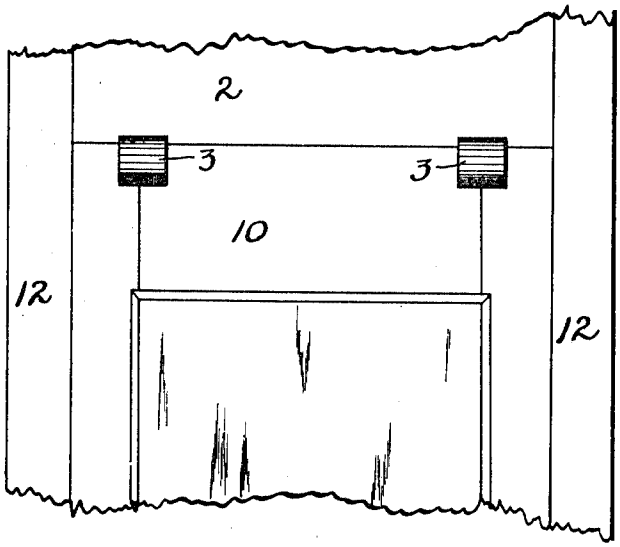


Fig. 1.

Witnesses

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HANGER FOR STORM-WINDOWS AND THE LIKE.

1,071,950. Specification of Letters Patent. Patented Sept. 2, 1913.

Application filed November 4, 1912. Serial No. 729,216.

To all whom it may concern:

Be it known that I, ARTHUR J. PADDACK, of the city of Omaha, county of Douglas, and State of Nebraska, have invented certain new and useful Improvements in Hangers for Storm-Windows and the Like, and have described the same in the following specification, illustrated by the accompanying drawings.

It is the chief novel object of the invention to render a storm-window hanger easy and convenient to be applied to the window by a person standing within the windowed building.

In the accompanying drawings, which illustrate the best manner in which I have contemplated applying the principles of the invention, Figure 1 is a partial front elevation of a window casing and a closed storm window therein, united by a pair of duplicate hangers which are constructed in accordance with these principles. Figs. 2, 3 and 4 are central vertical sections of the same in various operative positions.

In this illustrative structure the upper leaf of each of the duplicate hangers has a flat body 1, of general rectangular form, which is secured in a horizontal position to the under edge of the casing-head 2, and projects outward therefrom. The projecting margin of this leaf terminates in a lip 3, which is bent downward from the body 1, then slopingly backward, and then upward. Between this lip and the flat body 1 is thus formed a transverse horizontal recess, or pocket, 4, extending from edge to edge of the leaf and having a vertically contracted mouth 5 opening backward under the leaf. The interior surface of this pocket has a cylindrically concave curvature 6 continuous with the underside of the flat leaf body 1, a similar but sharper curvature 7 near the margin of the lip, and an intermediate reversed, or convex, curvature 8 continuous with these concave curvatures. Likewise the under leaf of each hanger has a flat body 9, of general rectangular form. This is secured to the top of the window sash 10, projects outwardly therefrom at a right angle to the face of the sash, and has along its projecting and free margin a transverse cylindrically curved lip or hook, 11, which is bent downward from the body 9 and then inward toward the window. The upper and lower leaves of each hanger are thus mounted in mutually registering positions on the casing head and the window sash respectively; and two hangers, alining with each other, are applied to each window as shown. The hangers, the casing and the window sash are relatively so proportioned as to be operable in the following manner.

To hang the window, the sash, after being grasped at its right and left margins near the bottom by both hands of the operator standing inside the building, is first lifted and transferred through the open casing to the outside position shown in Fig. 3; in that position the sash is inclined from the vertical at an angle of about thirty degrees, contacts loosely at its upper and inner edge with the vertical sides 12 of the casing, and leans inward against the vertical blind stops, or reveals, 13, while supported in that position by the hands of the operator extended from within the building. Without other change of position, the sash, sliding upward against and between the vertical members just mentioned and guided thereby, is next by translation lifted by the hands of the operator into the position shown in Fig. 4, where it is stopped by the mutual contact of the upper and lower leaves. Then the operator, by merely drawing the foot of the sash inward a short distance toward himself, and without any need of seeing any part of the hangers above, produces an engagement between the upper and lower leaves, first in the position indicated by broken lines in Fig. 2 and then, as the movement continues, in the position shown by full lines in the same figure. During this movement the extreme outer edge of the lip 11, as it slides on the curve 8 of the upper leaf, moves continually in directions tangent to that curve, and rises easily, carrying the sash to the position last mentioned with little friction. Whenever the window is swung open to the extent indicated by broken lines in Fig. 2, the lip 11, supporting the weight of the window, slides automatically down within the pocket 4 to the position there shown.

This improved hanger is of general applicability, regardless of the shape of the front face of the casing-head: as the upper leaf is seated on the under edge of the latter, it makes no difference what shape the front face of the casing-head may have, or whether that face has or has not a brick mold. Furthermore this hanger, which has no exposed recesses opening upward, and es-

pecially the underside pocket 4, are self protected from ice, snow and other accumulations which might otherwise obstruct the free operation of the mechanism in the manner described.

I claim as my invention—

1. A hanger of the specified class, comprising a pair of mutually engaging and disengaging hinge leaves having reflexed marginal interlocking curved lips pivotally oscillable about a movable axial line common to both leaves and slidable one within the other in different directions at right angles with the axial line.

2. A hanger of the specified class, comprising two mutually engaging and disengaging hinge leaves having downwardly reflexed marginal interlocking curved transverse lips slidable one within the other in different directions and pivotally turning on each other about a movable transverse axial line common to both leaves.

3. A hanger of the specified class, comprising two mutually engaging and disengaging hinge leaves having downwardly and inwardly reflexed marginal interlocking curved lips in sliding contact with each other; the lips turning pivotally on each other about a movable transverse axial line common to both leaves; and the lip of the upper leaf forming therewith a pocket which extends across the leaf, opens backward under the leaf, and has an obliquely disposed front wall on whose inner surface the contained lip of the subjacent and sash-carrying leaf may slide upward as the leaves are closed together, and downward as they are opened apart.

4. A hanger of the specified class, comprising two mutually engaging and disengaging hinge leaves having downwardly reflexed marginal interlocking curved lips in sliding contact with each other; the upper leaf being normally fastened in a generally horizontal position; the lips turning pivotally on each other about a movable transverse horizontal axial line common to both leaves; and the lip of the upper leaf forming with the body thereof a transverse horizontal pocket which opens backward under that leaf and has a reëntrantly curved and obliquely disposed front wall on whose inner surface the contained lip of the under leaf slides obliquely when the opposite margin of that leaf is raised or lowered in a vertical plane.

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Witnesses:
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