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2,244,136

WINDOW SCREEN AND STORM SASH FIXTURE

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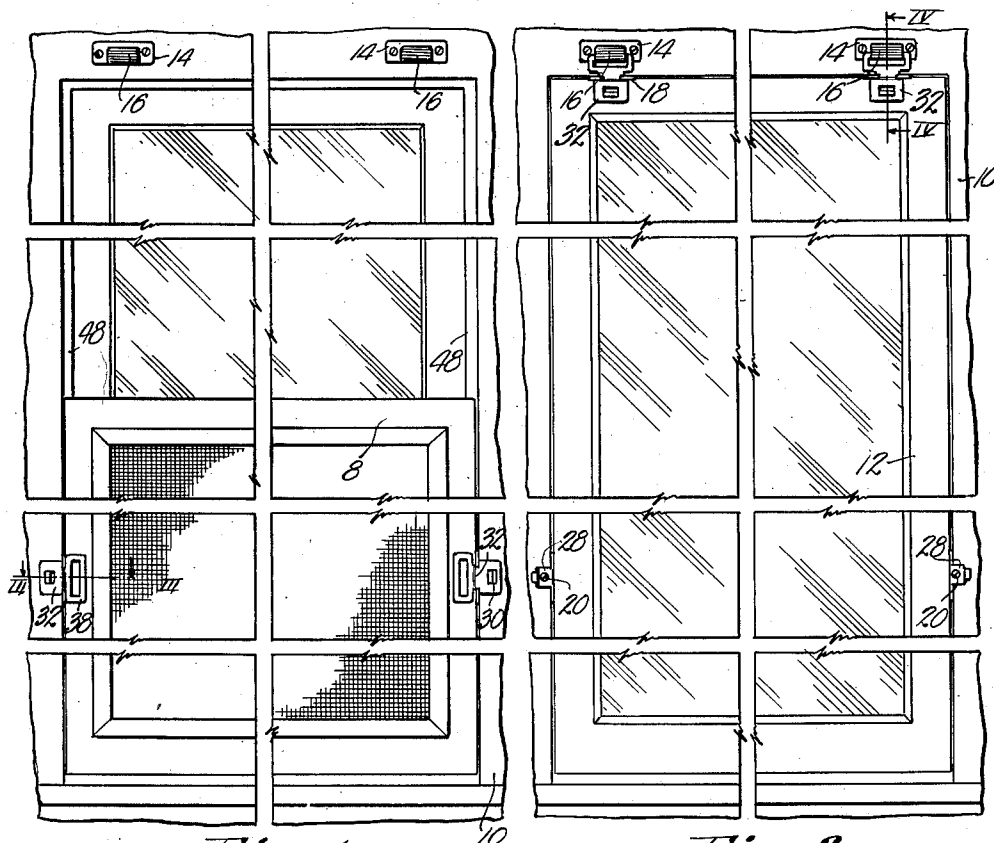


Fig. 1.

Fig. 2.

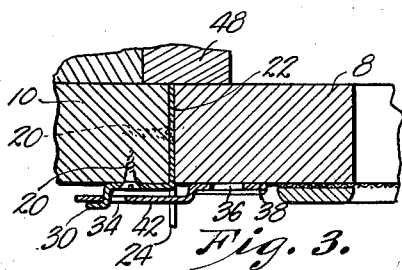


Fig. 3.

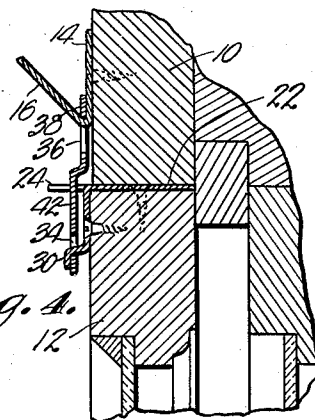


Fig. 4.

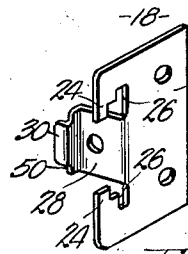


Fig. 5.

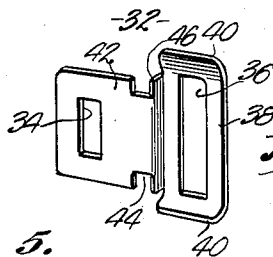


Fig. 6.

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WINDOW SCREEN AND STORM SASH
FIXTURE

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2 Claims. (Cl. 16—172)

This invention relates to window screen and storm sash and particularly, means for securing said members in place through the use of novel and unique parts, certain of which are interchangeable to function with either a half or full length frame.

One of the important aims of this invention is to provide attaching elements for window screens or storm sash so that the former may be slidably arranged in the conventional window frame, and the latter hingedly mounted thereon by the employment of a specially formed fixture the nature of which allows it to be used with either the half or full length frame.

The invention has for a still further object the provision of a new article of manufacture, which may be combined with standard window frames and conventional screens and storm sash, usually associated therewith, so that both the screen and sash may be operatively positioned and interchanged without the employment of special tools and without the necessity of removing or affixing units in the nature of those now used.

Minor objects of the invention will appear during the course of the following specification, referring to the accompanying drawing wherein:

Figure 1 is a plan view of a window frame and half screen showing parts associated therewith made in accordance with the present invention.

Fig. 2 is a similar view illustrating the manner of supporting a full length storm sash.

Fig. 3 is an enlarged fragmentary detailed sectional view taken on line III—III of Fig. 1.

Fig. 4 is a similar view taken on line IV—IV of Fig. 2.

Fig. 5 is a perspective view of the specially formed bracket; and,

Fig. 6 is a perspective view of the fixture made to cooperate with the bracket.

In a vast majority of cases, it is desirable to interchange window screens and window sash, and an advantage to have the screen slidably mounted while the window sash is swingably carried for movement toward and from the operative position.

The screens now in use domestically, are usually half frames so that they may be slid vertically and while the storm sash is full length with the means for supporting them at the top thereof, this invention contemplates the use of an interchangeable fixture and a series of identical brackets so that a slidable half screen, for example, may be substituted in a window frame for a swingable full length storm sash.

When the parts are placed in accordance with the invention, it is unnecessary to employ tools for the elements that are permanently affixed to window frame, half screen, or full length storm sash, remain in place while the fixture embodying the invention is shifted from one position to another.

The numeral 8 designates the frame of a half screen which covers the lower portion of window frame 10 and which is vertically slidable when mounted as illustrated.

The full length storm sash frame 12 positioned in window frame 10, swings outwardly at the bottom when mounted as illustrated in Fig. 2, and suitable hooks or latches, not here shown, are employed to hold the slidable half frame 8 against upward movement and the swingable full length frame 12 against outward movement.

When equipping window frame 10, hangers 14 having upwardly and outwardly inclined ears 16 are fastened to the outer surface of the structure immediately above the opening defined by frame 10. One of the brackets 18 illustrated, clearly in Fig. 5, is attached to the inner longitudinal vertical edge of window frame 10 at a point substantially midway between the upper and lower edges of half frame 8. Bracket 18 is so formed as to have portions thereof engaging the outer face of window frame 10 and the inner face thereof so that screws or analogous securing means 20 may pass into the material forming window frame 10 from two directions, as seen in Fig. 3.

Each bracket is formed of sheet metal and the body 22 thereof is notched inwardly from one edge to present overhanging ears 24, the inner edges of which, forming notches 26, are stepped for the purpose hereinafter set down.

The laterally disposed portion 28 of body 22 terminates in an L-shaped head 30. This bracket 18 is so formed as to be interchangeable from right to left side of window frame 10 and its attachment to the upper edge of frame 12 is as shown in Fig. 4. The head 30 of bracket 18 is on the outer face of frame 12 when the bracket is serving as means for swingably carrying the storm sash.

Fixture 32 is generally T-shaped and made of sheet metal. The stem has a slot 34 formed therethrough near the base and the crosshead of body 32 has an opening 36 which receives ear 16 of the hanger 14. The ends of cross-head 38 are outturned as at 40 and stem 42 is reduced in width by the provision of opposed

notches 44 at the zone of juncture with cross-head 38. Shoulder 46 forming a connection between stem 42 and crosshead 38 maintains the former in a plane slightly offset but parallel to the major plane of crosshead 38.

When the fixture contemplated is constructed as just set forth, it may be affixed to brackets 18 on frame 12 or to brackets 18 that are secured to window frame 10. When serving as a part of the hinge mechanism forming a connection between window frame 10 and frame 12, fixture 32 receives head 30 in slot 34 and opening 36 receives inclined ear 16 of hanger 14. The reduced portion of fixture 32 at notches 46 lies between the steps of notches 26 in bracket 18 that are close together and displacement of fixture 32 is thereby precluded. The relation of parts is as shown in Fig. 4 and frame 12 may be swung to and from the operative position as desired.

When fixtures 32 are removed from full length storm sash frame 12 and fitted over brackets 18 on the vertical sides of window frame 10, the crosshead 38 thereof is extended outwardly into the space to be covered by screen 8 and this head 38 cooperates with strip 48 in establishing a groove wherein vertical movement on the part of screen 8 may occur. L-shaped head 30 of body 18 enters slot 34 and the form of notches 26 is such as to maintain the fixture in operative position.

The distance between the outermost steps of notches 26 is slightly greater than the greatest width of stem 42 and the distance between the innermost steps of notches 26 is substantially the same as the distance between the inner edge of stem 42 forming notches 44. Thus, stem 42 may be moved into notches 26 to a point where L-shaped head 30 may enter slot 34 after which time lateral movement will draw the reduced part of stem 42 between steps of notches 26 that are close together.

Shoulders 50 bear against one face of stem 42 while one leg of L-shaped head 30 bears against the other face thereof. Sufficient binding occurs through the relation of elements to maintain fixture 32 in operative position. Crosshead 38

slidably engages the outer face of frame 8 and outturned portions 40 insure that no edges of fixture 32 will scratch the surface of the frame.

From the foregoing, it is obvious that fixtures 32 are interchangeable and serve as parts of the means for hingedly carrying frame 12 and as parts for slidably mounting frame 8. When fixtures 32 are removed from the positions shown in Fig. 1 no overhanging obstructions are present to avoid placement of frame 12.

Manifestly a complete set of parts for interchangeably mounting window screens and storm sash consists of two hangers 14, two fixtures 32 and four brackets 18. When the members are formed and disposed as shown and described, the frames may be interchanged whenever desired.

Having thus described the invention, what is claimed as new and desired to be secured by Letters Patent is:

1. Means for holding sashes in operative position in window frames comprising a sheet metal bracket having notched, undercut, ears; a laterally disposed portion integral with the body extending from the edge of said body forming the bottom of said notch; an L-shaped head on the free end of said portion; and a fixture having a T-shaped sheet metal body provided with a slot therethrough adjacent to the base of the stem thereof for receiving the L-shaped head of the bracket, and an opening through the crosshead thereof, said body having a reduced portion in the stem at its zone of juncture with the crosshead for engagement with the notched ears of the bracket.

2. As a new article of manufacture, an interchangeable fixture for window screens and storm sash, comprising a stem provided with at least one slot therein intermediate its edges for the reception of a support; a crosshead, joined to the stem, intermediate its ends and having an opening formed therethrough for the reception of a hanger; and outturned marginal edges on the crosshead along opposite ends thereof, said crosshead being longer than the portion of the stem joined thereto.

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