Oct. 29, 1929. H. HIGGIN 1,733,877

METAL WINDOW SCREEN

Filed Jan. 31, 1924

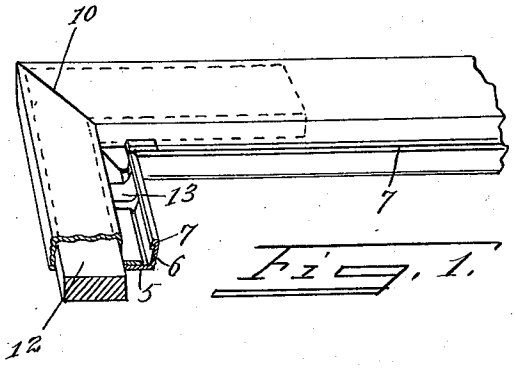


Fig. 1.

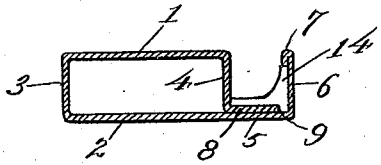


Fig. 2.



Fig. 4.

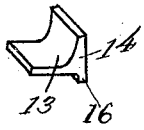


Fig. 3.

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UNITED STATES PATENT OFFICE

HENRY HIGGIN, OF NEWPORT, KENTUCKY, ASSIGNOR TO THE HIGGIN MANUFACTURING COMPANY, OF NEWPORT, KENTUCKY, A CORPORATION OF WEST VIRGINIA

METAL WINDOW SCREEN

Application filed January 31, 1924. Serial No. 689,803.

My invention relates to metallic window screens of the kind in which the frame is formed from a single strip of sheet metal folded lengthwise to form a hollow body portion with the sides of the strip extended laterally to form a side channel with a spline to hold the wire screening in the lateral channel.

In such constructions of frame it is customary to provide mitered corners for the frame, braced and supported by corner irons which are inserted in the adjacent tubular ends of the frame pieces and the corner parts then soldered together.

The greatest strain in handling the window screens and while in use, is necessarily at the corners, and it is found that there is an ever present tendency to fracture the solder and to open up at the corners. This is particularly noticeable with hollow molding frames which do not resist torsional strains.

It is the particular object of my invention to provide a very simple and effective construction to strengthen and brace the corners so that this liability to spring apart at the corners is reduced to a minimum.

My invention is particularly applicable to that type of window screen illustrated in my prior Patent No. 1,171,952, of February 15, 1916, in which a bead is provided along the outer lateral edge of the channel portion of the frame and in which the lateral edge of the molding strip for the base of the channel on the inside does not extend to the outer corner of the channel, so that a shoulder is left in the base of the channel.

The invention consists in the employment of angular-shaped clips to be inserted and braced in the channel in the manner to be hereinafter particularly pointed out and claimed.

In the drawings:

Figure 1 is a perspective view of one corner of the screen frame, with the clips in place.

Figure 2 is a cross section of one side of the frame.

Figure 3 is a perspective view of one form of clip.

Figure 4 is a similar view of a modified form.

The screen frame is formed from a single strip of metal folded into rectangular shape to form for the body of the frame, a hollow molding with top 1, bottom 2, and sides 3 and 4. The bottom portion is extended laterally to form a base 5 and side wall 6 for the channel and the outer edge is turned over to form a bead 7, while the inner side wall 4 in the construction, I prefer to use, is extended at 8 to lie over the outer base wall of the channel portion, but ends short of the corner to leave a shoulder 9 as in my prior patent above. The overlying extension 8 may, however, be extended along the side wall 6 and be folded in with the bead 7, as in other older constructions.

To construct the screen frame, strips of the molding are cut of the proper length and mitered at the ends as at 10, and corner irons 12 either hollow or solid are inserted in the ends to be jointed and the mitered ends then soldered together.

As heretofore stated, this joint has a tendency to work loose, especially with frames of considerable size. In order to avoid this I provide clips 13 or 15. The head of the clip 14 with the lip 16 is of a length to wedge into the channel bearing between the bead 7 and the base of the channel between the side edge of portion 8, and the lateral wall 6, where this construction of frame is employed, while the body of the clip against the wall 4, and the side 6 of the channel. I have also found that the L-shaped clip can be used effectively with the lip 16 omitted, and where the base of the channel is unbroken, the L-shaped clip will always be used.

I have found that by the insertion of these clips at or near the mitered corners of the frame, the construction is so stiffened and braced that there is no liability of the frame springing at the corners or breaking or loosening the soldered joint.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent, is:—

1. In a window screen, the combination with a molding frame member formed from a single strip of metal folded to form a hollow body portion, with the side edges extended

and folded to form a side channel, having the outer edge of the side channel turned over to form a bead, of a separate short L-shaped clip wedged into the channel to stiffen and brace the same at the corners.

2. In a window screen, the combination with a molding frame formed from single strip of metal folded to form a hollow body portion, the side edges extended and folded to form a side channel, with the outer edge of the side channel turned over to form a bead, of separate short L-shaped clips inserted in the channel adjacent the corners and spring-tensioned between the bead and the base of the chanel to stiffen the frame at the corners.

3. In a window screen, the combination with a molding frame of metallic strip formed into a hollow member with a channel along one side thereof, the outer edge of the channel having a bead along its edge, with the base of the channel formed with a depression, of separate rigid elements of L-shaped construction inserted in the channel adjacent the ends thereof and braced between the bead and the depression in the base of the channel to stiffen the frame at the corners.

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