E. JOHNSON.

METALLIC WINDOW SASH.

APPLICATION FILED FEB. 4, 1910.

1,012,138. Patented Dec. 19, 1911.

Fig. 1

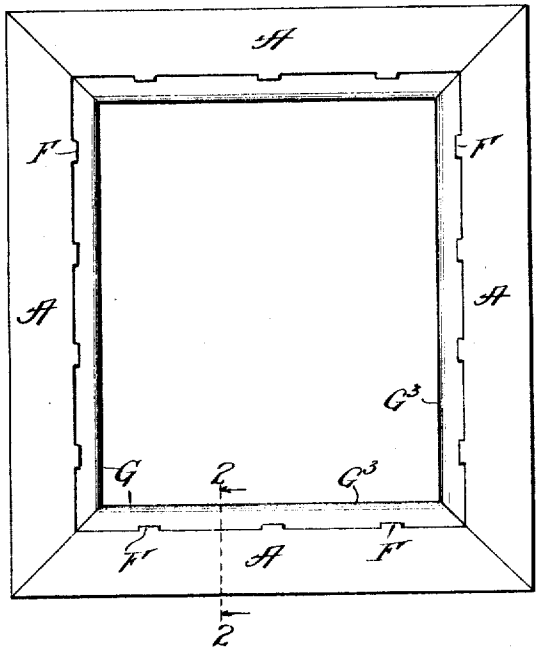


Fig. 2

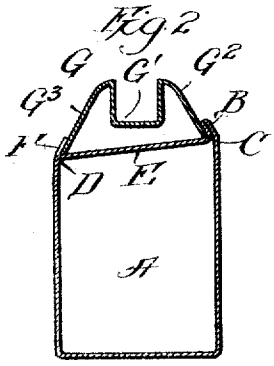
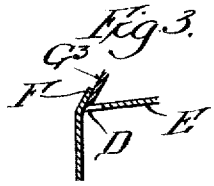


Fig. 3.



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UNITED STATES PATENT OFFICE.

EDWARD JOHNSON, OF CHICAGO, ILLINOIS, ASSIGNOR TO FORSYTH BROTHERS COMPANY, OF CHICAGO, ILLINOIS, A CORPORATION OF ILLINOIS.

METALLIC WINDOW-SASH.

1,012,138. Specification of Letters Patent. Patented Dec. 19, 1911.

Original application filed January 29, 1909, Serial No. 474,988. Divided and this application filed February 4, 1910. Serial No. 542,094.

To all whom it may concern:

Be it known that I, EDWARD JOHNSON, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Metallic Window-Sashes, of which the following is a specification.

My invention relates to metallic window sash constructions of the general character disclosed in my co-pending application No. 474,988, filed January 29, 1909, and of which this application is a division.

The object of my invention is to provide a window sash so constructed that the window glass can be readily inserted and removed from the sash from the inside thereof, and without damage to the glass or injury to the sash.

A further object is to provide a sash which shall be simple in construction and cheap to manufacture, and which shall consist of but two parts, *i. e.*, the main body of the frame and an inside removable strip slidably detachable from the frame and adapted to be held in position in the frame by resilient fastening means, whereby a tight and elastic joint is secured.

A preferred embodiment of my invention is described in the following specification and illustrated in the accompanying drawings, in which—

Figure 1 is an inside elevation of the sash frame and the glass positioned therein. Fig. 2 is a vertical cross-section on the line 2—2 of Fig. 1, and, Fig. 3 is a detail sectional view of part of the body and removable strip showing the manner of striking up the retaining lips.

In the drawings, A indicates the main body of the frame which is formed of four sections of angular tubing joined in any suitable way at the corners, as shown in Fig. 1. The outer edge of this frame is folded as shown in Fig. 2 and forms a projecting flange B, inclined upwardly and inwardly to form an acute angle C with the upper face E. The inside corner D of the frame is pierced at intervals along the inner face E, as shown in Fig. 3, to form a lip F. These lips are struck up from the face E to form an acute angle therewith. These lips are spaced at intervals along the edge D of the frame; the number depending upon the size of the frame and of the glass to be held therein, it being only necessary that the lips be located near enough together to hold the glass firmly in position.

Supported upon the face E of each side of the frame, and adapted to be held in position thereon by the lip F and the flange B, are the four glass-holding strips G, as shown in Fig. 2. These strips are preferably composed of sheet-metal folded at or near its center to form a channel G′ adapted to receive and hold the edge of a glass plate. The lower edges of the faces G^2 and G^3 of this strip are adapted to be supported upon the face E of the frame. The face G^2 is inclined to fit in the angle C formed by the outside flange B and the face E of the frame, while the outer edge G^3 is inclined in the opposite direction to fit into the angle formed by the face E and the lips F, as shown in Figs. 2 and 3. It will be apparent that the strip G may be inserted into operative position relative to the frame A either by bending the faces G^2 and G^3 toward each other so that they may be slipped under the flange B and the lip F, or the strip may be slid longitudinally into its operative position from one end of the frame before the side pieces of the frame are assembled.

This construction provides a sash which is easy to manufacture and which is made entirely from sheet metal, and which can be readily and quickly put together. The lip F and the flange B securely hold the glass-holding strip in position and produce between the frame and the strip a weather-tight joint.

It will be obvious that minor mechanical variations may be made in this construction without departing from the spirit of the invention or sacrificing any of the material advantages thereof.

What I claim is:

1. A metallic sash consisting of a rectangular main body, said body being folded at one corner to form a flange projecting at an acute angle from the inner face of said body and a series of lips struck up from said inner face of said body adjacent the inside edge thereof and inclined at an acute angle with said face, and a glass-holding strip folded to form a centrally disposed longitudinal channel to receive and hold the edge of a glass, the edges of said strip being adapted for in-

sertion in the angle of the outside flange and the angle under said lips, respectively, said sash consisting only of said main body and said glass-holding strips as described.

2. A metallic sash consisting of a rectangular tubular body folded to form a flange on the outside edge of its inner face, said flange forming an acute angle with said inner face, a series of lips on the inside edge of said inner face forming an acute angle therewith and disposed in a line parallel with said flange, and a glass-holding strip having a central longitudinal channel adapted to receive and hold a window glass, one edge of said strip being inserted under said lips whereby said strip is removably secured on the inner face of said body as described.

3. A metallic sash consisting of a main body, a longitudinal flange on the outer part of its inner face forming an acute angle therewith, a series of lips struck up from the inner part of said face and inclined toward said flange, and a glass-holding strip detachably inserted in the angles formed by said flange and lips with the face, said strip having a longitudinal central channel adapted to receive and hold a glass, said face consisting of only the body part and the strip as described.

4. A metallic window sash consisting of a body part flanged on the outer edge of its inner face and having a series of lips on the inner edge of said face, said flange and said lips forming acute angles with said face and being thereby adapted for the insertion therein of a glass holding strip; and an elastic glass holding strip folded to form a longitudinal central channel adapted to hold a window glass, and the edges of said strip adapted to be inserted in and removed from the angles formed by said face, flange and lips by transverse pressure applied to said strip as described, said sash consisting only of said body part and said strip as described.

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