

V. ROSS.  
SHEET METAL WINDOW.  
APPLICATION FILED APR. 8, 1905.

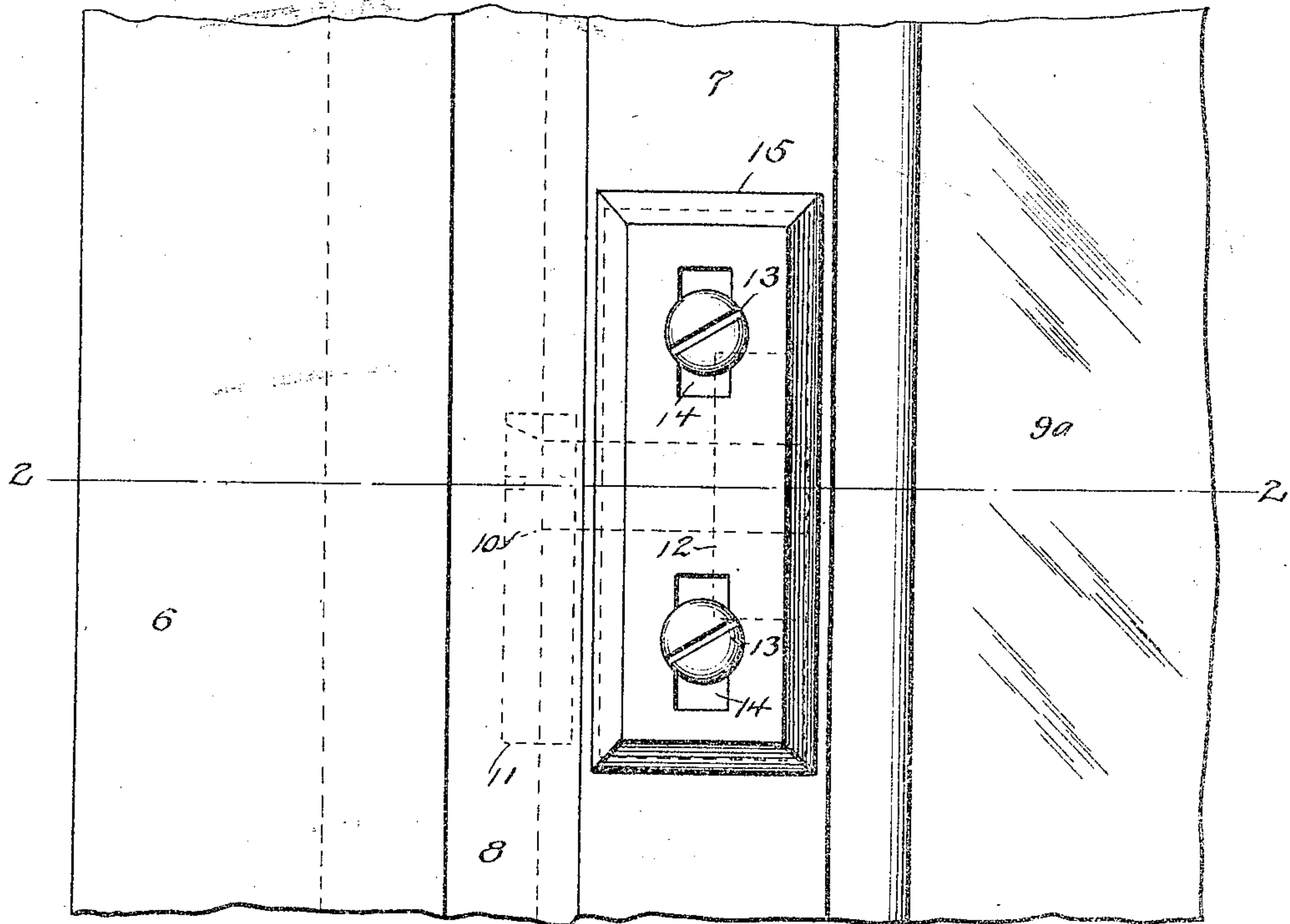


Fig. 1.

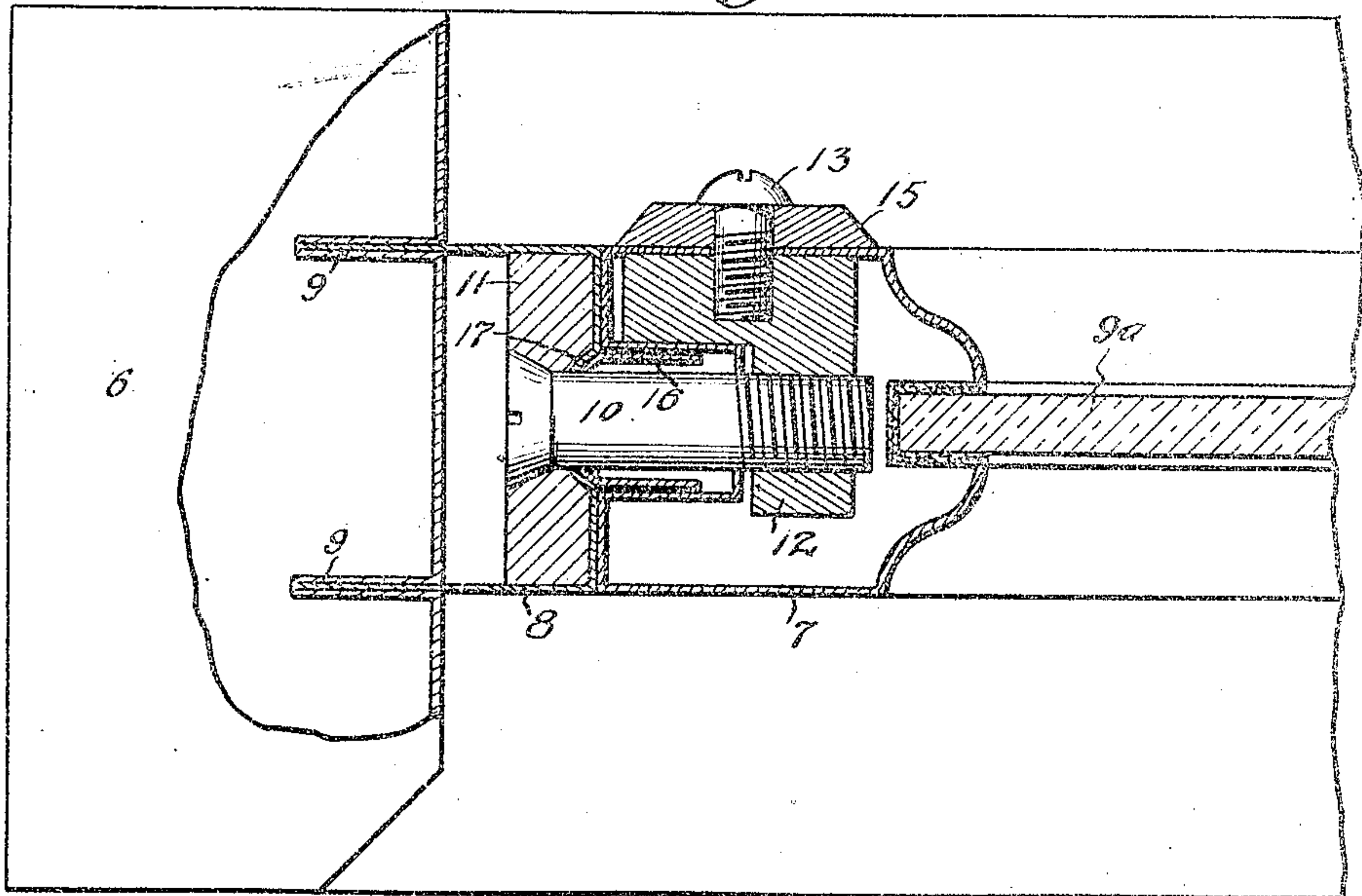


Fig. 2.

Witnesses  
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# UNITED STATES PATENT OFFICE.

VERNON ROSS, OF KANSAS CITY, MISSOURI.

## SHEET-METAL WINDOW.

No. 816,126.

Specification of Letters Patent.

Patented March 27, 1906.

Application filed April 8, 1905. Serial No. 254,521.

*To all whom it may concern:*

Be it known that I, VERNON ROSS, a citizen of the United States, residing at Kansas City, in the county of Jackson and State of Missouri, have invented new and useful Improvements in Sheet-Metal Windows, of which the following is a specification.

This invention is an improved pivotal connection for sheet-metal window-sashes which swing to open the same.

The object of the invention is to provide a simple device of the kind having the particular characteristics that the pivot-bolt is set at the middle vertical line of the sash-stile and is concealed. An adjustment is also permitted to make the sash fit properly.

In the accompanying drawings, Figure 1 is an elevation of a portion of the stile of the window-sash provided with my improvement. Fig. 2 is a section on the line 2 2 of Fig. 1.

Referring specifically to the drawings, 6 indicates the window-frame, and 7 the stile of the sash. 8 is a side stop which fits between the edge of the sash-stile and the casing. Its flanges are fitted and fixed in grooves 9 formed in the sash-frame. These parts are made of sheet metal and are accordingly hollow, as shown. The stile has a groove to receive the edge of the glass 9<sup>a</sup>.

A pivot-bolt is indicated at 10. This bolt extends horizontally through the side stop and into the stile, and its head is seated in a plate 11, fitting within the side stop. This gives the necessary support and backing for the pivot-bolt. This bolt screws into an angular lug or block 12, which is located within the hollow stile and is clamped against one side thereof by screws 13, which extend through slots 14 in a plate 15 on the outside of the stile. The screws clamp the plate and block together and give the necessary strength and solidity to support the sash as it swings on the pivots. The slots 14 allow the sash to be raised or lowered to a limited extent to adjust it to its proper position in the frame.

On its inner edge the stile is grooved to receive the metal weather bar or strip 16. This extends lengthwise in the groove, and its outer curved surface fits in a shallow channel 17, formed in the edge of the stop 8. When the sash is swung on its pivots, this weather strip or bar is forced back into the recess by the wedge action of the stop on the curved surface of the strip. When the sash is closed, the strip is forced into position by springs near its ends in a known manner.

The pivotal devices, to which this application is directed, provide a cheap and effective means for pivoting metal sash. The plates 11 and 15 and the angular block 12 can be cheaply cast to accommodate stock screws.

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

1. A sheet-metal window, having a hollow stop on the frame thereof, a plate in the stop, a pivot-bolt projecting through the plate and stop and into the sash-stile, and a block fastened in the stile, and into which the bolt extends.

2. A sheet-metal window-sash having a block inside its stile, a plate on the outside thereof, screws which clamp the plate and block with the metal sheet of the stile therebetween, and a pivot-bolt which extends from the window-frame into the block.

3. A sheet-metal window, having a pivot-bolt projecting from its frame into the sash-stile, a block in the stile, into which the bolt extends, said stile having a vertical slot in its face, beside the block, and fastening devices extending through the slot and securing the block at adjustment in the stile.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

VERNON ROSS.

Witnesses:

E. S. RHOADS,  
WM. M. WEIS.