

R. G. WINTER.
SASH STAY AND FASTENER.

(Application filed Feb. 16, 1900.)

(No Model.)

2 Sheets—Sheet 1.

Fig. 1.

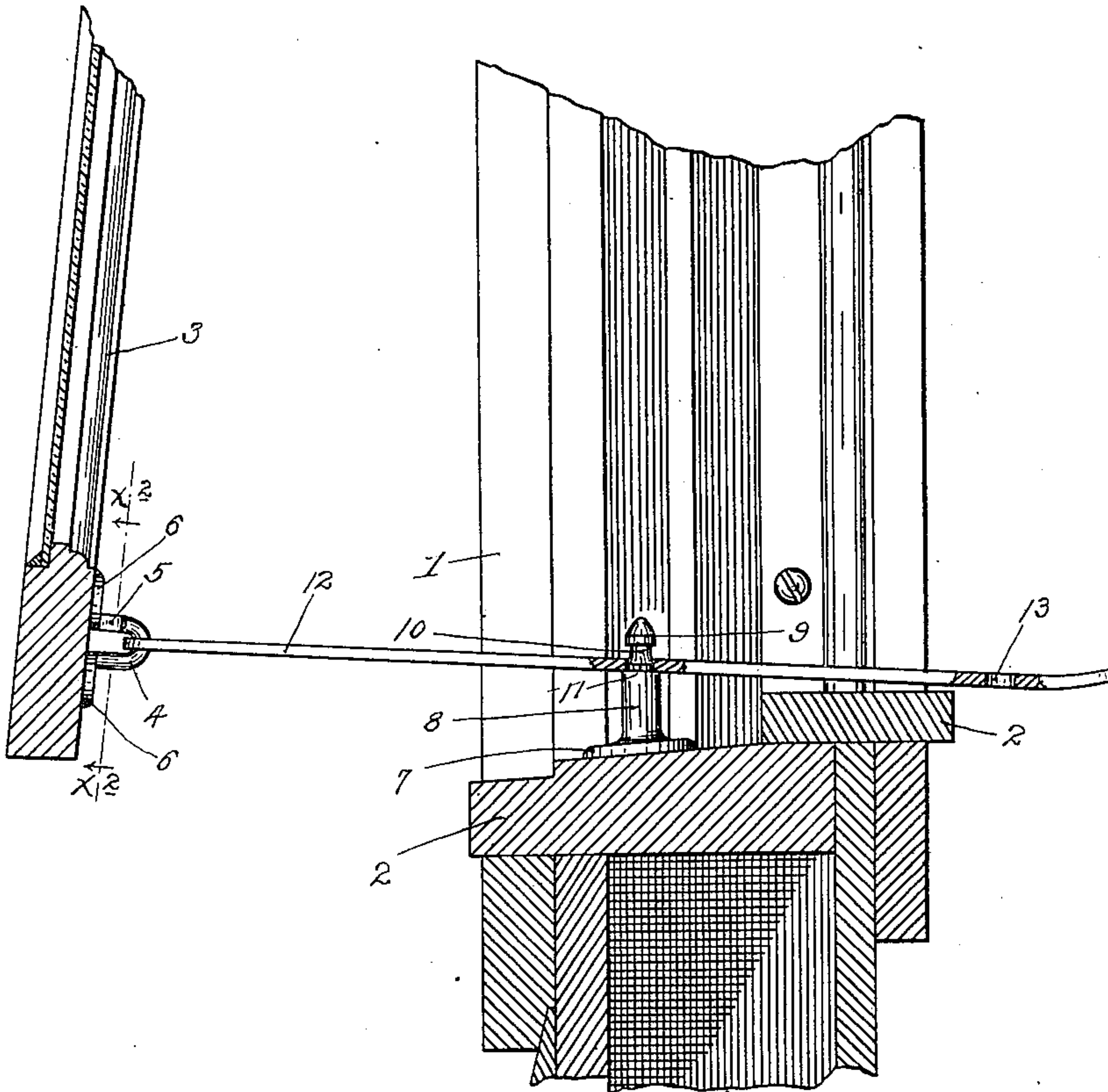
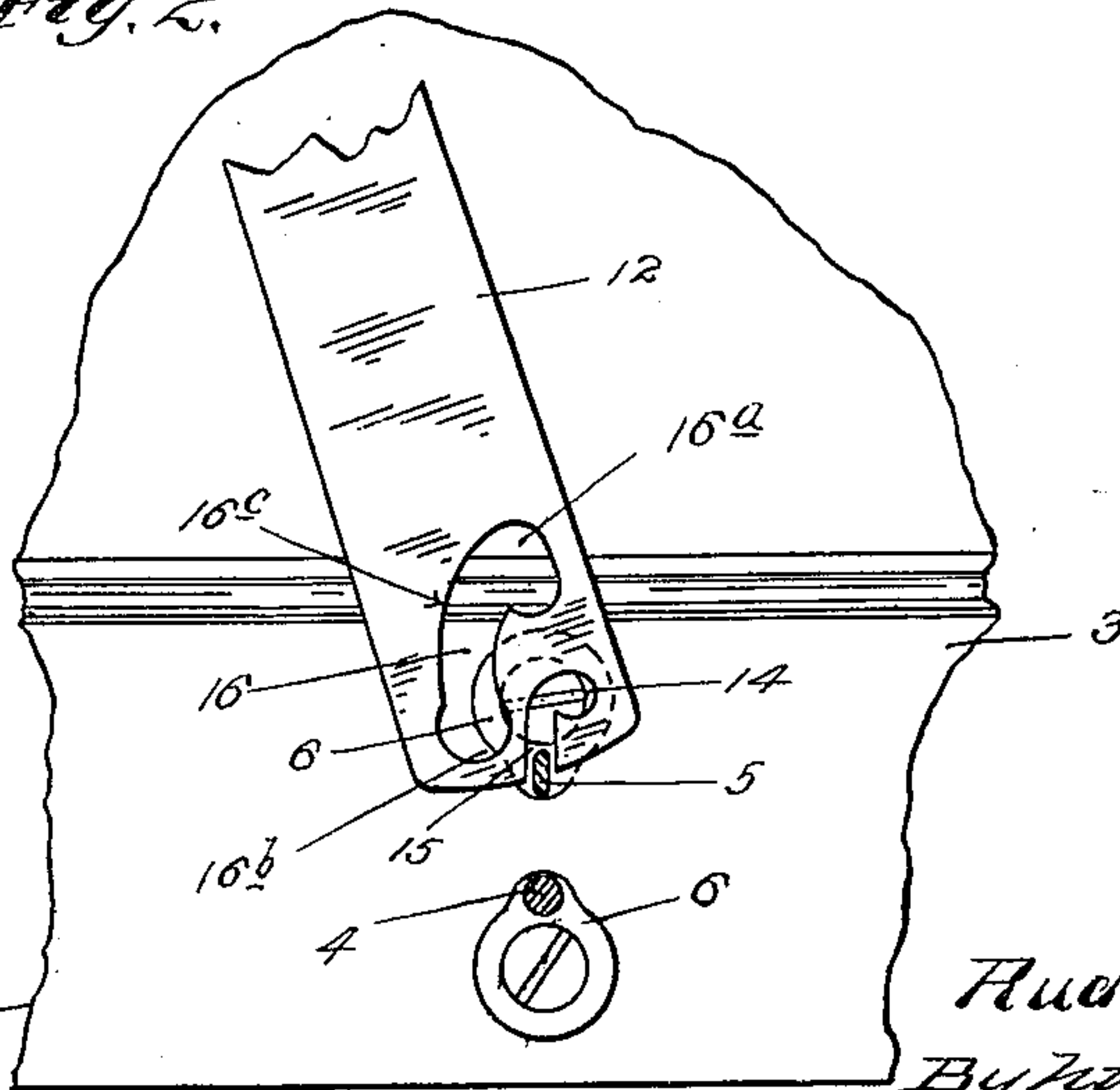


Fig. 2.



Witnesses,
Harry Kilgus,
Robert Otto.

Inventor,
Rudolph G. Winter,
By his Attorneys,
Williamson & Merchand

No. 663,555.

Patented Dec. 11, 1900.

R. G. WINTER.
SASH STAY AND FASTENER.

(Application filed Feb. 16, 1900.)

2 Sheets—Sheet 2.

(No Model.)

Fig. 3.

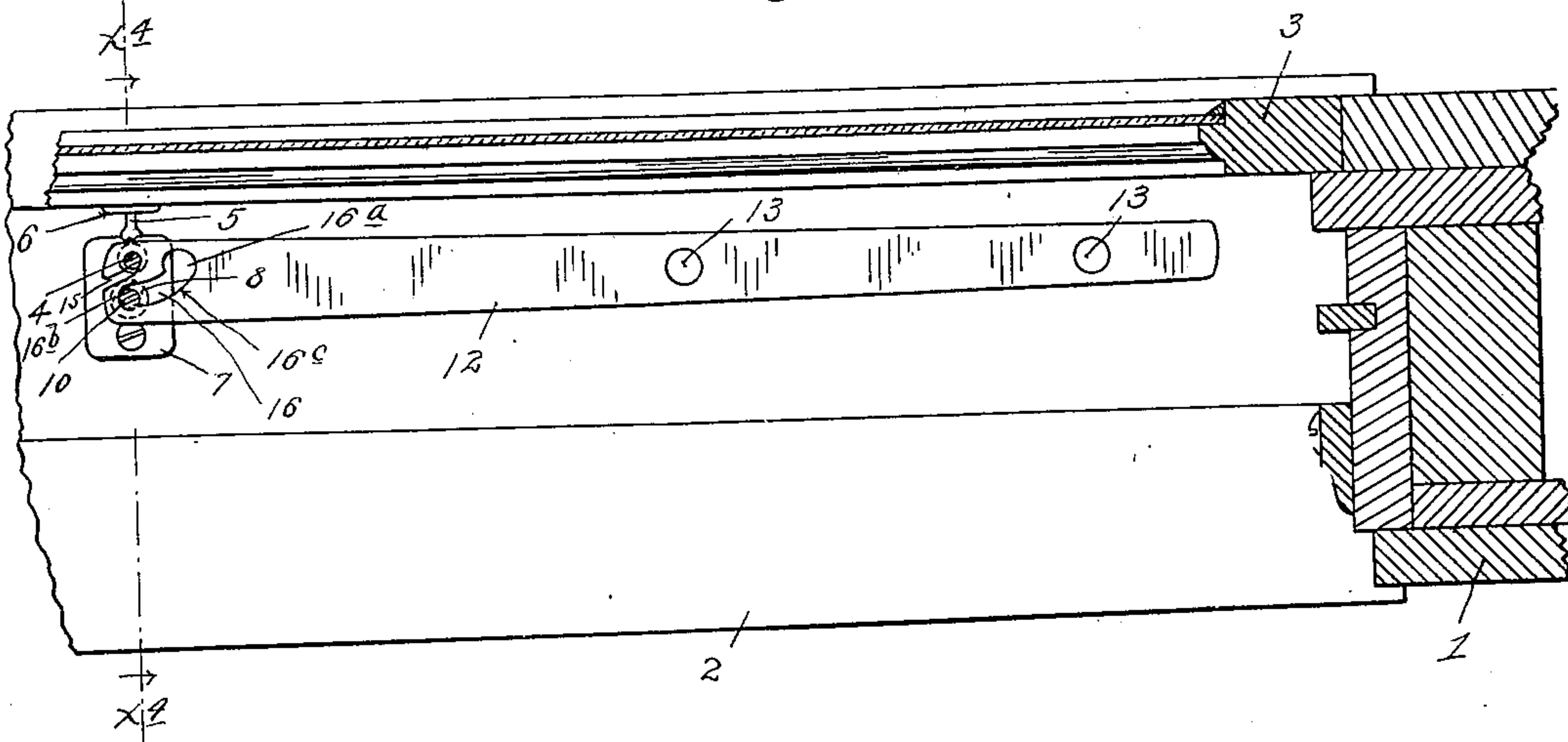
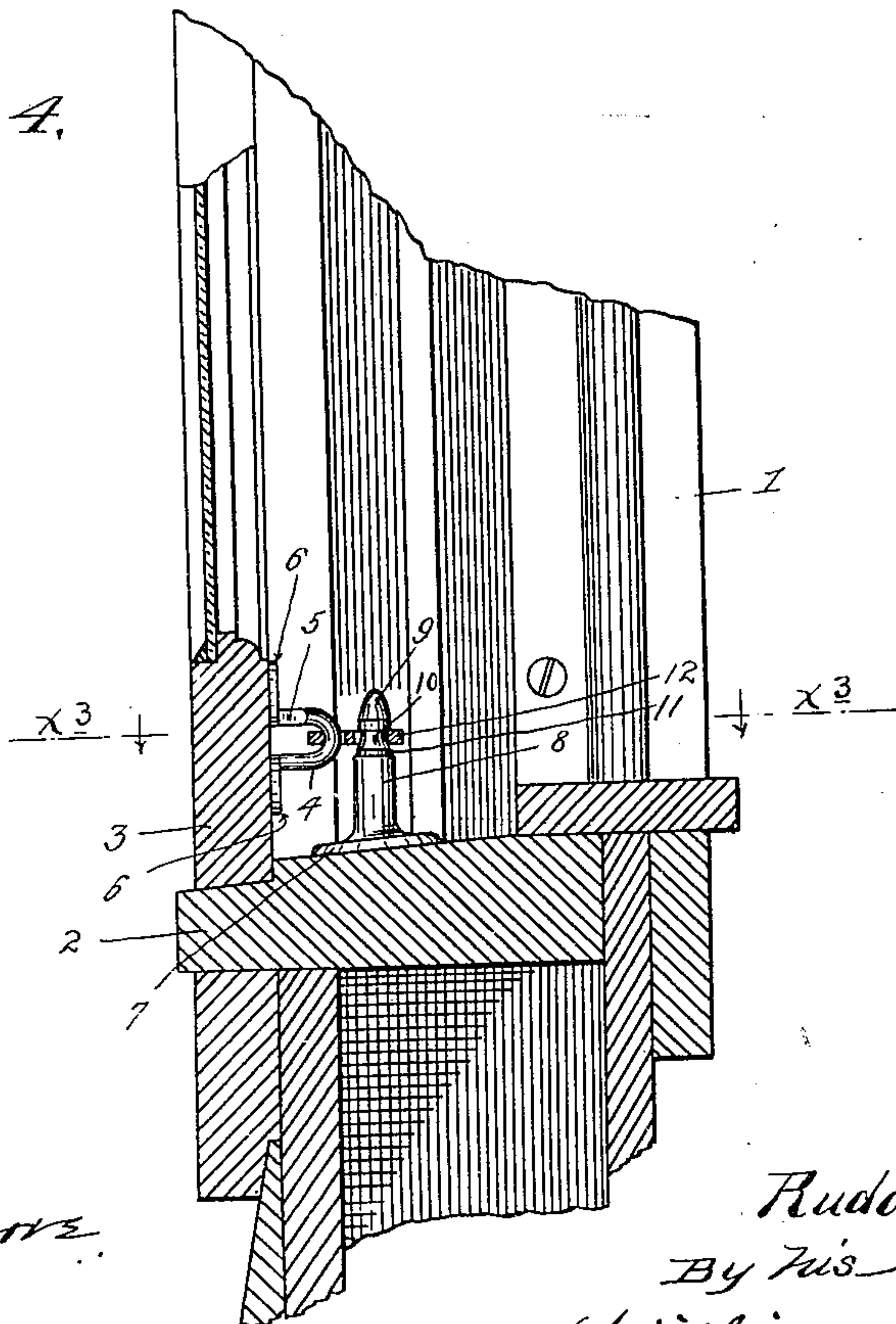


Fig. 4.



Witnesses,
Harry Kilgore.
Robert Otto.

Inventor:
Rudolph G. Winter.
By His Attorneys,
Williamson & Merchand

UNITED STATES PATENT OFFICE.

RUDOLPH G. WINTER, OF MINNEAPOLIS, MINNESOTA.

SASH STAY AND FASTENER.

SPECIFICATION forming part of Letters Patent No. 663,555, dated December 11, 1900.

Application filed February 16, 1900. Serial No. 5,411. (No model.)

To all whom it may concern:

Be it known that I, RUDOLPH G. WINTER, a citizen of the United States, residing at Minneapolis, in the county of Hennepin and State of Minnesota, have invented certain new and useful Improvements in Sash Stays and Fasteners; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention has for its object to provide an improved sash stay and fastener especially adapted for application to swinging screens and storm-sashes; and to this end it consists of the novel devices and combinations of devices hereinafter described, and defined in the claims.

The invention is illustrated in the accompanying drawings, wherein like characters indicate like parts throughout the several views.

Figure 1 is a vertical section showing a portion of a window, including a hinged storm-sash, with one of my improved devices applied thereto, some parts being broken away. Fig. 2 is a detail view taken approximately on the line $x^2 x^2$ of Fig. 1 and illustrating the manner in which the stay-bar is applied to the windows or storm-sash. Fig. 3 is a horizontal section approximately on the line $x^3 x^3$ of Fig. 4, and Fig. 4 is a vertical section approximately on the line $x^4 x^4$ of Fig. 3.

1 indicates the frame, comprising the sill 2, and 3 indicates the sash of a storm-window, which is hinged at its upper end by suitable devices. (Not shown.) In this preferred construction a staple 4, which is flattened at 5, is provided with expanded feet 6, which are secured to the lower central portion of the sash 3 by screws or other suitable devices.

To the lower central portion of the frame 1, in line with the staple 4 on the swinging sash 3, is rigidly secured, by means of screws or other suitable devices, a plate or base 7, which has a vertical standard or stud 8, that rises therefrom and terminates at its extreme upper end in a pointed head 9. Just below the head 9 the stud 8 is reduced to form a downwardly-flaring neck or section 10, that terminates at its lower end in a short cylindrical section 11, which is preferably slightly greater in diameter than the head 9, but is

less in diameter than the body of the stud 8. The purpose of this construction will appear later.

The numeral 12 indicates the so-called "stay-bar," which is pivoted on the staple 4 and is provided at its free end with one or more perforations 13 of such size that they readily pass over the head 9 of the cam-stud 8 and closely fit the cylindrical portion 11, so as to prevent rattling of the stay-bar on the cam-stud.

The stay-bar 12 is detachably secured or pivoted to the staple 4, and the arrangement whereby this attachment and detachment of the stay-bar is permitted constitutes the salient feature of my present invention. With the construction illustrated in the drawings the stay-bar 12 is at its outer end provided with a perforation 14, from which a narrow channel 15 opens tangentially at the end of the bar. The channel 15 is so narrow that the rounded body portion of the staple 4 cannot pass therethrough, but is wide enough to freely pass the flattened portion 5 of the said staple, as indicated in Fig. 2. The bar 12 being placed in the position indicated in Fig. 2, which is an approximately vertical position, is forced downward until the flattened staple-section 5 enters the perforation 14, and then the said bar is turned into a horizontal position, so that the rounded body portion of the staple enters the perforation 14. The staple and the bar 12 are then interlocked and the device is ready for use.

The bar 12 in the vicinity of the perforation 14 is provided with a segmental slot 16, which at one end 16^a is enlarged and at its other end 16^b terminates in a depression or recess. A cam-surface 16^c extends from the end 16^a to the recess 16^b of the slot 16, gradually running closer to the perforation 14 as it approaches the said recess 16^b.

The use of the device as a window-stay has already been indicated. Its use as a window or sash fastener is as follows: The window being closed, the end 16^a of the slot 16 is placed over the head 9 of the cam-stud 8, and the cam-surface 16^c is drawn against the tapered cam-section or neck 10, and the bar is turned on the staple 4 as a pivot into the position indicated in Fig. 3, in which position the said neck 10 enters the recess 16^b to retain the bar

12 in its closing position. The tapered neck portion 10 under the above camming action forces the upper surface of the bar 12 against the shoulder at the base of the head 9, and when the bar is being applied, as shown in Fig. 1, the said tapered neck 10 guides the perforations 13 into engagement with the cylindrical section 11. It is also very desirable to have the parts detachably secured, for the reason that a single stay rod or bar applied to a window may be used with the storm-sash in the winter or the screen in the summer, it being only necessary to provide both the sash and the screen either with one of the staples 4 5 or screw-eyes 20, according to which construction is used.

What I claim, and desire to secure by Letters Patent of the United States, is as follows:

1. The combination with a swinging sash or similar device, and its relatively-fixed support, of a hinge member secured to said sash, a cam post or projection on said fixed support, and a sash stay and fastener pivoted to said hinge member by an open seat, having a narrow entrance-passage, said hinge member having a flattened or narrow portion cooperating with said narrow entrance-passage, to permit said stay and fastener to be connected and disconnected when turned into an inoperative position, said stay and fastener having also a cam-surface which is engageable with said cam stud or projection when said stay and fastener is turned into a plane in which it cannot be disconnected from said hinge member, substantially as described.

2. The combination with a window sash

and frame, of the staple 4 flattened at 5 and secured to said sash, a cam-stud on the window-frame, and the bar 12 provided with the perforation 14, with entrance-channel 15, and having the cam-surface 16^c, the latter of which coöperates with said cam-stud, and which entrance-channel 15 will pass the flattened portion 5 of said staple 4 when said bar 12 is turned into an inoperative position, substantially as described.

3. The combination with the window frame and sash, of the stay-bar and fastener 12 hinged to said sash and provided with the cam-surface 16^c terminating in the retaining seat or recess 16^b, and the cam-stud 8 secured on said window-frame and provided with the head 9 and tapered and reduced neck or cam-section 10 for coöperation with the cam-surface 16^c of said bar 12, substantially as described.

4. The combination with the window frame and sash, of the stay-bar and fastener 12 hinged to said sash and provided with the cam-surface 16^c and perforations 13, and the cam-stud 8 formed with the tapered head 9, cylindrical section 11 and reduced and tapered neck or cam-section 10, said section 11 coöperating with said perforations 13 and said cam-section 10 coöperating with said cam-surface 16^c, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

RUDOLPH G. WINTER.

Witnesses:

M. M. McGRORY,
F. D. MERCHANT.