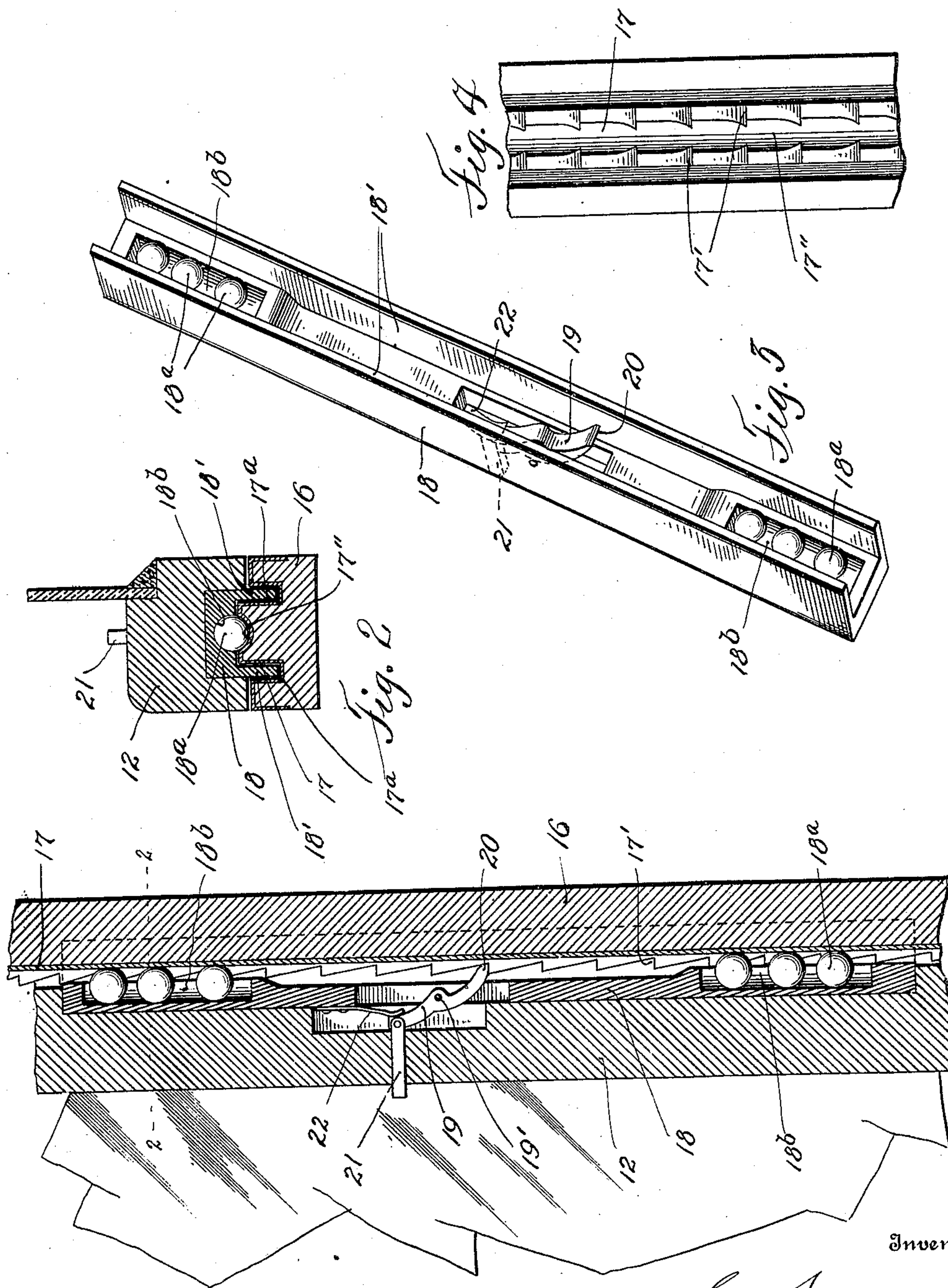


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SASH FASTENER.  
APPLICATION FILED MAR. 12, 1909.

Patented Sept. 21, 1909.

934,765.



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Fig. 1



# UNITED STATES PATENT OFFICE.

CHARLES SINGER, OF WINFRED, SOUTH DAKOTA.

SASH-FASTENER.

934,765.

Specification of Letters Patent. Patented Sept. 21, 1909.

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*To all whom it may concern:*

Be it known that I, CHARLES SINGER, a citizen of the United States, residing at Winfred, in the county of Lake and State of South Dakota, have invented certain new and useful Improvements in Sash-Fasteners, of which the following is a specification.

This invention relates to sash fasteners, and has particular reference to certain specific details of construction hereinafter fully described and claimed, and illustrated in the accompanying drawings, in which—

Figure 1 is a view showing the construction of the guide rail and shoe; Fig. 2 is a transverse section on the line 2—2 of Fig. 1; Fig. 3 is a perspective view of the guide shoe detached, and Fig. 4 is an enlarged face view of a fragment of the notched guide rail.

Throughout the following detail description and on the several figures of the drawings similar parts are referred to by like reference characters.

The primary purpose of this invention is to provide an advantageous form of sash fastener designed especially for use in connection with hinged window frames of the type shown in my copending application, Serial No. 505,462, filed July 1, 1909, in which construction of window frame the sashes may be removed for the purpose of cleaning the same, such removal being easily accomplished while the operator stands upon the inside of the room.

The window frames 16 are provided with ribs 17 having notches 17' and each having a groove 17''. The ribs extend throughout the length of the frames. Each frame 16 is provided with two of said ribs arranged parallel for the accommodation of the sashes 12 which slide thereupon.

Each window sash 12 is provided with a pair of shoes or runners 18 embedded therein. Each shoe is provided with parallel vertical flanges 18' which embrace the rib 17. The shoes and ribs are preferably made of metal, either cast, rolled, or sheet metal, whereby all likelihood of binding or sticking of the window sashes, due to changes in the weather or the like, will be eliminated. In other words it is my purpose to provide

metallic contact surfaces only for the window construction. Each rib 17 is preferably provided with grooves 17<sup>a</sup> on each side to receive the outer edges of the flanges 18' of the shoe cooperating therewith, thus making it a practical impossibility for cold air to pass through the window frame.

A series of anti-friction rollers indicated as balls 18<sup>a</sup> are carried by each shoe, and cooperate with the groove 17'' of the adjacent rib, to facilitate ease of operation of the sash. Said balls are secured within countersunk seats 18<sup>b</sup> of the shoes. Each shoe, furthermore, is provided with a spring operated dog or detent 19 pivoted intermediate of its ends at 19' within the shoe. The outwardly projecting point 20 of the catch cooperates with the notches 17' to prevent unauthorized movement downwardly of the sash. The point 20 of the catch is broad enough to span the groove 17'', the latter being preferably unbroken throughout its extent to facilitate the operation of the rollers 18<sup>a</sup>. To the inner end of the catch is pivoted a finger piece 21, projecting inwardly through and held in the sash frame, whereby upon depression of the finger piece the point 20 will be withdrawn from the notch or notches of the rib, against the tension of a spring 22, whose normal tendency is to cause the point 20 to engage the notched rib.

Having thus described the invention, what is claimed as new is:—

1. The hereindescribed window comprising, in combination, a window frame including side members, each side member comprising a pair of parallel guide ribs each having a central groove and sets of notches on opposite sides of the groove, there being provided also grooves on opposite sides of the rib extending below the face of the side member, and a pair of sashes guided between said side members, a shoe embedded in the edge of each sash and embracing one of said ribs, anti-friction rollers cooperating with said rib groove, a catch spanning said groove and cooperating with said notches, and each shoe being also provided with flanges which operate in said grooves extending on the opposite sides of the rib.

2. In a device of the character set forth,  
the combination of a frame having side  
members, a pair of metallic notched guide  
ribs secured to each of said side members,  
5 metallic shoes embedded in the edge of the  
sashes and embracing said ribs, anti-friction  
rollers cooperating with said shoes and ribs,  
and spring operated catches carried by said

shoes and cooperating with the notches of  
the ribs. 10

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

CHARLES SINGER.

Witnesses:

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