H. E. STAGMAN.

SASH STOP.

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1,236,618.

Patented Aug. 14, 1917.

Fig. 1.

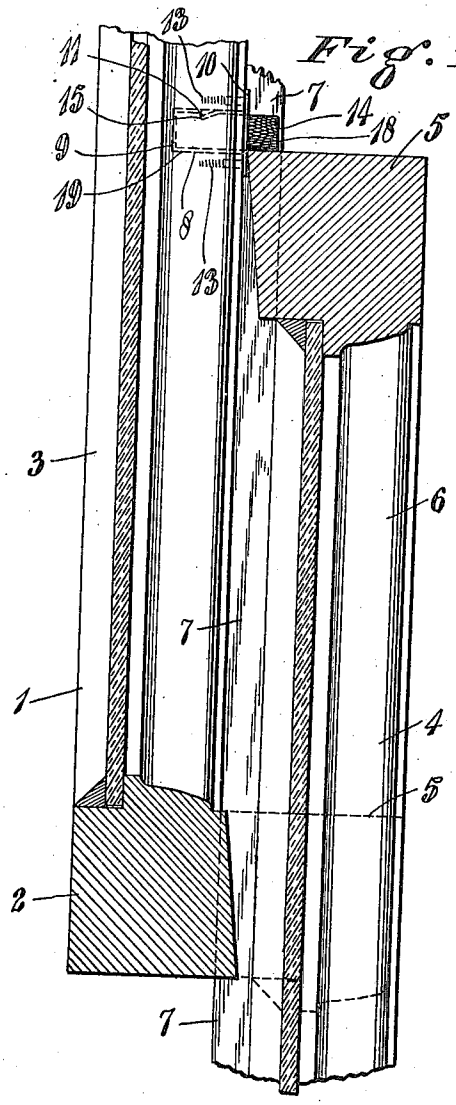


Fig. 2.

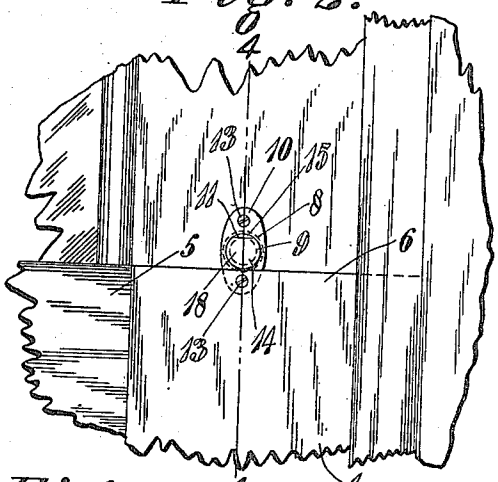


Fig. 3.

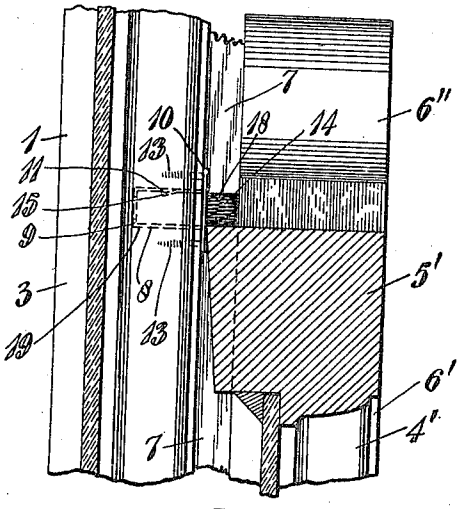


Fig. 4.

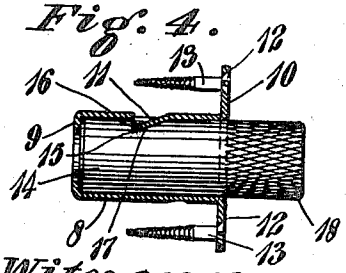


Fig. 5.

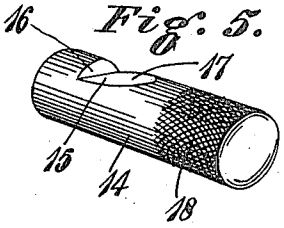
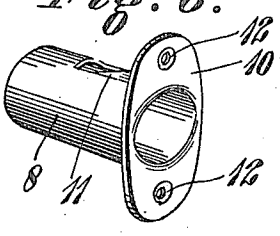


Fig. 6.



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SASH-STOP.

1,236,618. Specification of Letters Patent. Patented Aug. 14, 1917.

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To all whom it may concern:

Be it known that I, HARRISON E. STAGMAN, a citizen of the United States, and a resident of Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Sash-Stops, of which the following is a specification.

My invention relates to sash-fasteners, and its object is to permit the upper sash to be moved down or the lower sash to be moved up within certain limits only, so that sufficient opening may be had for ventilation without permitting access from without, such as will permit entrance through the window, as by burglars.

My invention consists in the parts and in the details of construction and arrangement of parts as will herein be more fully described and claimed.

In the drawing:

Figure 1 is a vertical cross section through the lower part of the upper sash and the upper part of the lower sash, showing my invention applied thereto; the lower sash being represented, by full lines, raised as far as the device will permit, and also being represented by dotted lines in its lowermost or closed position;

Fig. 2 is a front elevation of the parts of the sashes adjacent to my device and in the relative positions shown by the solid lines in Fig. 1;

Fig. 3 is a section similar to Fig. 1, but showing a modified lower sash;

Fig. 4 is an enlarged vertical cross section of my improved device, on a plane corresponding to the line 4—4 of Fig. 2;

Fig. 5 is a perspective detail of the plug; and

Fig. 6 is a similar view of the socket member.

Referring to Figs. 1 and 2, the upper sash 1 comprises the bottom or meeting-rail 2 and stiles 3, only one of which is shown, and the lower sash 4 comprises the top or meeting-rail 5 and stiles 6, only one of which is shown. The meeting rails 2 and 5 wedge together in the well-known manner. In the modification shown in Fig. 3, the lower sash 4′ has the top or meeting-rail 5′ and a stile 6′ that has a part 6″ that extends above the meeting-rail 5′. In either instance, the sashes are separated and guided by the parting strip 7; and in the example of Fig. 3, the upward extension of the stile 6 comes no nearer to the inner side of the upper sash 1 than the inner side of this parting strip 7.

Both kinds of sashes above described will be recognized as of the well-known standard construction, and their details are enumerated only for elucidating the description of the application and use of my invention.

My device, as I prefer to construct it, comprises a socket member 8 of hollow cylindrical or tubular formation in its main part, having an annular flange 9 turned in around one of its ends, and having a flange or face plate 10 turned out at its other end. About midway of its length at its top, it has a tongue 11 pressed down from its material into its interior, being attached by its end toward the face plate 10 on the front of the device, and thus inclining inwardly and rearwardly toward the end that has the inturned flange 9 on the rear end of the device. The face plate 10, as seen in Figs. 2 and 6, is preferably of elliptical formation with its greatest length lying vertically, and it has, near its upper and lower ends, countersunk openings 12 through which the screws 13 are passed.

Into the above described socket member fits a cylindrical plug 14 which has cut in one of its convex sides a notch 15 with a rear end 16 substantially at right angles to the axis of the cylindrical plug, and with a bottom 17 inclining at a low angle upwardly and forwardly. This notch is so located in the plug that when the rear end of the plug strikes the inturned flanges 9 at the rear end of the socket, the rear end of the tongue 11 comes down forwardly of the end 16 of the notch. The plug 14 is of such length that when in this position it has a projection 18 out of the front of the socket, which may be knurled, as shown, in order to be readily gripped by the thumb and finger.

My device is applied to the window by boring a hole 19 in one of the stiles 3 of the upper sash 1 at a distance above the top of the meeting-rail 5 of the lower sash 4 equal to the greatest distance that it will be desired to lower the upper sash or raise the lower sash and yet guard against opening the window from the outside, as hereinbefore alluded to. This hole 19 is of such diameter that the socket member 8 will fit snugly therein and of such depth that the face-plate 10 of the socket member may come against the front surface of the sash,

Then the screws 13 are screwed into the material of the sash through the openings 12, holding the socket member securely in place. Mortising the face-plate 10 into the material of the sash will not generally be necessary; although of course, where this is necessary or desirable, it may be done.

With this provision, it is necessary only to push the plug 14 into the socket member 8 in such position relative thereto that its notch 15 will slide under the tongue 11. It will be understood that the material of which the socket member is made is of such nature that the tongue 11, bent down as it is, will be resilient, and will bend upward as the rear part of the plug slides thereunder, and then will snap down into the notch 15 when the plug has been pushed back against the flange 9. When it is desired to withdraw the plug, it is turned in the socket member so that the notch 15 is displaced laterally from the tongue 11, causing the tongue to be bent upward by a part of the surface of the plug at one side of the notch 15, which, being smooth, will allow the plug to be withdrawn without the tongue catching thereon.

While the plug is very readily inserted and withdrawn by direct access on the interior of the window, it is practically impossible to manipulate it by such access as would be had from the outside through the limited opening at the top or bottom of the window. The part 18 which engages with the top of the lower sash and thus limits the relative movement of the sashes is purposely made plainly cylindrical; the only departure from this being the nurling to facilitate grasping it. Thus, the plug can be grasped only with the greatest difficulty by any instrument that could be handled from the open top of the window; and since the plug projects only far enough to make the stopping engagement, it is practically impossible for it to be reached from the bottom of the window, on account of the intervening top rail 5 of the lower sash. When the lower sash has the upward projection 6″, as in Fig. 3, the difficulty is further increased, because the plug is covered by the projection.

Even if grasped by such an instrument, it is necessary, when the tongue 11 and the notch 15 are provided, to turn the plug through quite a considerable angle against the resistance of the tongue 11 before being able to withdraw it; and such a turning with such a long instrument as is required to reach the plug from either the top or the bottom of the window is so difficult as to be practically impossible.

Considerable advantage is afforded by my device, in that it requires alteration of only one of the sashes, and permits ready manipulation of either one of the sashes through the limited degree of movement which it permits, without any manipulation of the device itself. Thus, either sash may be adjusted to any position within the limit; but when the plug is in place neither sash can be moved past this limit, even though it is not held in the particular position to which it was adjusted. It is unimportant whether a burglar moves the sash out of the position to which it was adjusted so long as he is unable to move it far enough to afford an opening sufficient to admit him to the interior or to give him access to the fastening of the window and permit him to further open the window and thus gain admittance.

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

1. In combination with two sashes with adjacent faces, one of which sashes is slidable relatively to the other, and supporting means for said sashes, one of said sashes having an opening in its face adjacent to the other sash, a resilient tongue bent down into the interior of said opening, with its end presented rearwardly thereof, and a plug rotatably fitting in said opening and having a notch in one of its convex sides, said tongue entering said notch and retentively engaging with the rear end thereof when the plug is pushed into the opening, but being forced out of said notch and disengaged from said rear end for withdrawal of the plug when the plug is turned in the opening, part of said plug projecting out of said opening to engage with the exterior of the other sash and limit the degree of movement of the one sash relative to the other.

2. In combination with two sashes with adjacent faces, one of which sashes is slidable relatively to the other, and supporting means for said sashes, one of said sashes having an opening in its face adjacent to the other sash, a socket member comprising a tubular body fitting back in said opening, a resilient tongue bent down from the tubular part of the member into the interior thereof, with its end presented rearwardly thereof, and a cylindrical plug rotatably fitting in said socket member and having a notch in one of its convex sides, said tongue entering said notch and retentively engaging with the rear end thereof when the plug is pushed into the socket member, but being forced out of said notch and disengaged from said rear end for withdrawal of the plug when the plug is turned in the socket member, part of said plug projecting out of said socket member to engage with the exterior of the other sash and limit the degree of movement of the one sash relatively to the other.

3. In combination with two sashes with adjacent faces, one of which sashes is slid-

able relatively to the other, and supporting means for said sashes, one of said sashes having an opening in its face adjacent to the other sash, a socket member comprising a tubular body fitting back in said opening, a stop in the inner or rear end of said member, a resilient tongue bent down from the tubular part of the member into the interior thereof, with its end presented rearwardly thereof, and a cylindrical plug fitting in said socket member and having a notch in one of its convex sides, said tongue entering said notch and retentively engaging with the rear end thereof when the plug is pushed into the socket member, but being forced out of said notch and disengaged from said rear end for withdrawal of the plug when the plug is turned in the socket member, part of said plug projecting out of said socket member to engage with the exterior of the other sash and limit the degree of movement of the one sash relatively to the other, and said stop limiting the depth to which said plug may enter said socket member.

4. In a sash stop, a socket member comprising a tubular body, a stop in the inner or rear end of said member, a resilient tongue bent down from the tubular part of the member into the interior thereof, with its end presented rearwardly thereof, means for fastening said socket member in an opening, and a cylindrical plug fitting in said socket member and having a notch in one of its convex sides, said tongue entering said notch and retentively engaging with the rear end thereof when the plug is pushed into the socket member, but being forced out of said notch and disengaged from said rear end for withdrawal of the plug when the plug is turned in the socket member, said stop limiting the depth to which said plug may enter said socket member, whereby part of said plug projects out of said member.

HARRISON E. STAGMAN.

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents. Washington, D. C."