

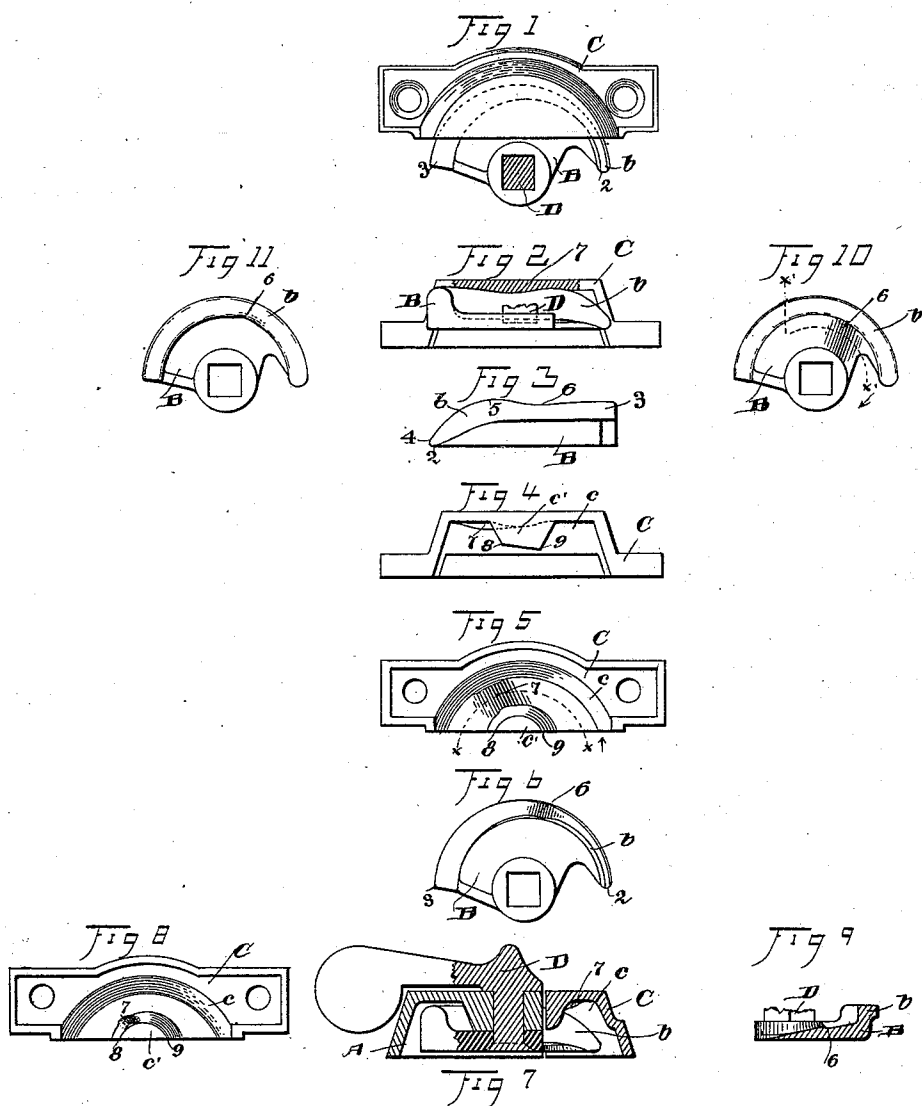
(No Model.)

G. HASENPFLUG.

FASTENER FOR THE MEETING RAILS OF SASHES.

No. 423,761.

Patented Mar. 18, 1890.



WITNESSES,

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FASTENER FOR THE MEETING-RAILS OF SASHES.

SPECIFICATION forming part of Letters Patent No. 423,761, dated March 18, 1890.

Application filed September 4, 1889. Serial No. 322,988. (No model.)

To all whom it may concern:

Be it known that I, GEORGE HASENPFLUG, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Sash-Locks; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to sash-locks; and the invention consists in an improvement on the form of lock patented to John T. Lister, November 15, 1887, No. 373,143, and assigned to the Safety Lock and Novelty Company, in which I have a controlling interest. The general outlines of the two locks are substantially the same, and the improvement I have made consists in so modifying the construction of the parts that they become firmly interlocked when closed, and thus prevent picking or opening from the outside, and at the same time avoid the need of any additional elements to effect the locking of the parts, all as shown and described, and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a plan view of the strike which goes on the upper sash, with the locking-plate in position, as when locked, the central post being broken in section and the case on the lower sash wholly removed. Fig. 2 is a section view taken on line $x\ x$, Fig. 5, and showing the locking-plate in locking position. Fig. 3 is a side elevation of the locking-plate itself, illustrating the side that enters the strike. Fig. 4 is a front elevation of the strike alone, and Fig. 5 is a bottom view thereof. Fig. 6 is a plan of the locking-plate alone, and Fig. 7 a central vertical section through the inclosing-case and the plate in position, as when locked. Fig. 8 is a bottom view of a strike having a projection on its inner side, and Fig. 11 is a plan of a locking-plate having a slight cavity or depression in its inner side to be engaged by said projection. Fig. 9 shows a section on line $x' x'$, Fig. 10, both said figures being designed to show a locking-plate with a depression inside the rib on the bottom of the plate to be engaged by the lip of the

strike, which in this case would be made long enough to take the bearing off the rib.

The inclosing-case A, the locking-plate B, the strike C, and the handle and post D are substantially the same in outline and function as they appear in the patent to Lister above referred to, excepting as modified by my invention. The locking-plate B is provided with a rib b along its outer edge, having increasing depth from point 2 to base 3, and the inner or working edge of said rib is eccentric to the axis of the plate, so that when the plate is turned in locking it will gradually and easily draw the two sashes together. This feature is disclosed in the aforesaid patent; but said patent provides no means of automatically locking the lock itself when it is in engaging position, and it is to this end that my invention is directed. My purpose is to make the parts of the original lock self-locking, so as to prevent the lock from being "picked" from the outside by means of an instrument inserted between the meeting-rails of the sashes, or from opening the lock by continued shaking or rattling of the sashes back and forth. This object I accomplish by retaining the cam shape of the rib b described in the aforesaid patent and by which the sashes are pressed up and down, respectively; but by so far modifying the original construction that the cam proper comes near the point of the plate, or, say, between the points 4 5, Fig. 3. This has the advantage of pressing the sashes in vertical lines before they are drawn tightly together along their meeting-rail surfaces and makes the lift easier than it was formerly. Then, in order to effect the locking of the parts, I form a slight depression 6 in the rib on its top, as seen clearly in Figs. 2, 3, and 6. This depression may have greater or less depth and width and be more or less abrupt, but a gradual approach in a somewhat curved line, and a slight drop below the declivity 5 of the cam is deemed preferable, as it makes the operations of the lock easier than with more decided offsets, and serves every purpose of a lock for the sash-locking mechanism. The counterpart of depression 6 is formed in locking-plate C, in the groove c of which, behind its engaging lip c' , is an

elevation 7. This elevation comes where it will ride into and lie in the depression 6 when the locking-plate has been carried round to full locking position, as seen in Figs. 1, 2, 5 and 7.

In operation with locks of this kind the spring of the meeting-rails in the up and down pressure exerted by the lock helps materially to adapt the lock to do its perfect work—that is, if the sashes fit closely at top and bottom, so as to have little vertical movement to accommodate them to the work of the lifting-cam, there is no difficulty in carrying the locking-plate around to complete the locking by reason of sufficient yield in the cross-rails of the sash to allow the movement to be completed; hence though by my improvement a little settling of the sashes or relaxation of the tension occurs after the swell, rib, or elevation rides into the depression 6, there is still such pressure and weight remaining that when taken with the very close lateral binding of the meeting-rails the parts are so effectually locked that “picking” or rattling them open is simply impossible. Of course the projection 7 and the depression 6 might be said to be reversed as to the parts—that is, that the depression is in plate C and the projection on rib *b*, and in a sense this is true, for relatively there are depressions and projections on both parts of the device. Obviously, also, the depression and projection 6 and 7, respectively, might be at the side, as in Figs. 8 and 11; but this is not desirable, as it would render the lock much more liable to picking by loosening the meeting-rails some-

what after the projection drops into the depression; or the locking-plate might have a rise inside the rib *b*, as shown in Fig. 9, and a depression 6, into which the lip *c'* would ride and lock when the locking-plate has been carried around to its locking position. The lip *c'* of the strike is inclined from 8 to 9, and when the latter form of plate is used it should be somewhat longer than in the other forms.

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

1. In a sash-lock, a strike to be fixed to the upper sash and provided with a locking-lip, in combination with a horizontal movable plate to be supported on the lower sash and adapted to lock on said lip, one of said parts having a depression in its engaging portion and the other a projection to ride into said depression and thus lock the parts together, and an inclosing-case for the plate, and a handle rigidly connected with said plate, substantially as described.

2. In a sash-lock, a plate provided with a rib, having a portion of its edge depressed, in combination with a locking-plate having an engaging lip and a groove behind the lip having a projection to engage and lock in the said depression, substantially as set forth.

In testimony whereof I hereunto set my hand this 17th day of August, 1889.

GEORGE HASENPFLUG.

Witnesses:

H. T. FISHER,
I. L. COREY.