W. F. BARGER.

SASH LOCK.

APPLICATION FILED OCT. 24, 1917.

1,331,976. Patented Feb. 24, 1920.

Fig. 1.

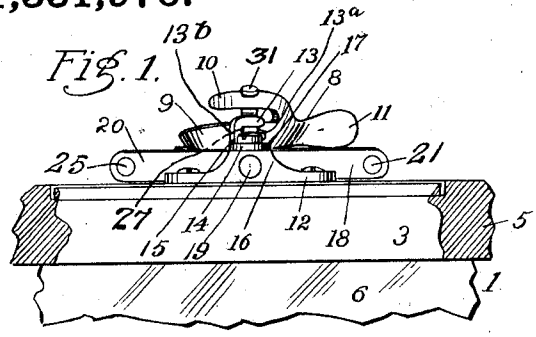


Fig. 3

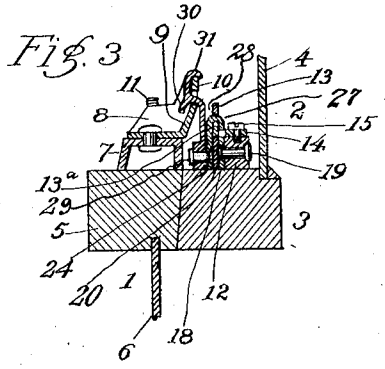


Fig. 2.

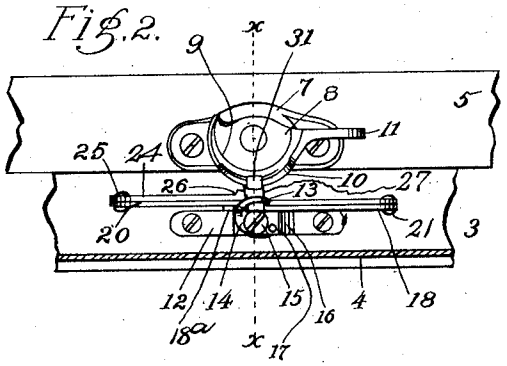


Fig. 6.

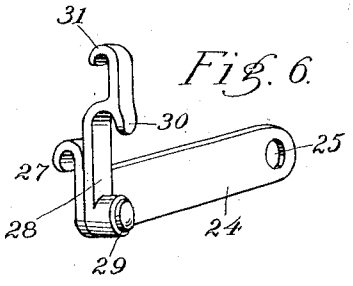


Fig. 4.

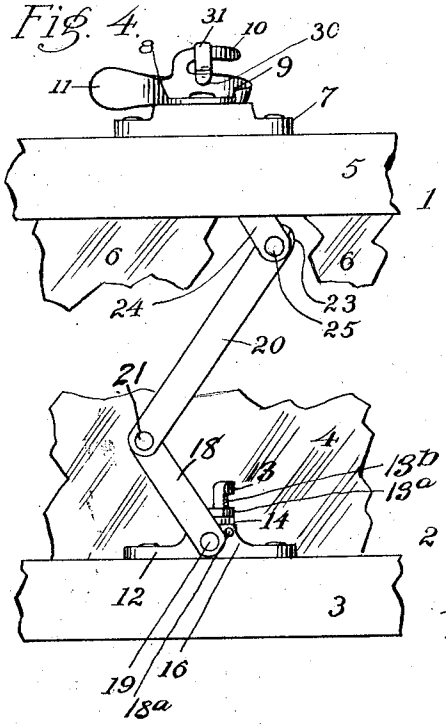
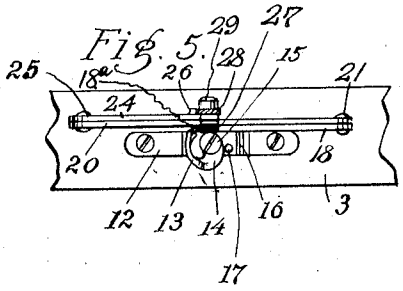


Fig. 5.



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UNITED STATES PATENT OFFICE.

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SASH-LOCK.

1,331,976. Specification of Letters Patent. Patented Feb. 24, 1920.

Application filed October 24, 1917. Serial No. 198,208.

To all whom it may concern:

Be it known that I, WILLIAM F. BARGER, a citizen of the United States of America, and a resident of Norwood, in the county of Hamilton and State of Ohio, have invented a certain new and useful Improvement in Sash-Locks, of which the following is a specification.

This invention relates to sash-locks in which provision is made to not only normally lock both sashes of a window when completely closed but to couple and securely lock both of them when in partly open position or relation, although not sufficiently open to permit undue entrance of an intruder from without, and it relates, as well as consists, more particularly, to and in an improvement on the lock coupling or link device for which United States Letters-Patent No. 1,171,016 was granted to me February 8, 1916, such improvement being but one carrier-hook member and a sectioned rod that may be folded into small compass and thus not so noticeable as the rod of said patent.

In the accompanying sheet of drawings:—

Figure 1 is an outside elevation showing the lock closed in connection with a fragmentary portion of the alined or closed meeting-rails, and with the glass shown in the lower sash only; Fig. 2, a plan view of the same; Fig. 3, a cross-section taken on the dotted-line x, x, of Fig. 2; Fig. 4, a rear elevation, omitting the glass from the upper sash, and showing the lock-proper released but with its folding or expansive, multiple-link coupling device partly extended so as to allow for the partial opening of the lower sash but still locked against further undue opening from the outside; Fig. 5, a plan view of the lock-member that is mounted on the meeting-rail of the upper sash, showing my improved multiple-link coupling with the detent or latch swung open ready for the expansion of the said coupling and the partial raising of the lower sash; and Fig. 6, a detached perspective view of the vertical multiple-hook carrier-member of the extensible or sectioned lock-coupling in normal position at the outer end of the uppermost link of the three links that form said extensible lock-coupling.

1 indicates the lower sash and 2 the upper sash of a window, fragmentary portions only of each being shown, and 3 indicating the lower cross-bar or meeting-rail of the upper sash having a sheet of glass 4, and 5 further indicating the upper meeting-rail of the lower sash and also supplied with the usual sheet of glass 6.

The lock-proper for the said meeting-rails, when they are in full locking-alinement and both sashes closed, is composed of a pair of interlocking-members, the one on the meeting-rail of the lower sash 1 having a base 7, a spring-controlled latch-member 8 pivotally-mounted on said base 7, said latch-member 8 having an inclined rib or raised cam-edge 9, an upper overhanging-arm 10, and a manipulating-handle 11, and the other one of said interlocking-members being provided on the meeting-rail of the upper sash 2, duly alining with the first-named member and having a base or block 12 secured on the meeting-rail of the upper sash 2 to aline with the base 7 on the adjacent meeting-rail, an overhanging or lateral latch-arm 13 projecting from the upright arm 13^b of an eccentric or cam base 14 that, in turn, turns horizontally on a pivot or pin 15 on the elevated portion 16 of said base or block 12, all as best shown in Figs. 1, 2 and 3. An upright pin 17 extends from the said elevated portion 16 of the block 12 to form a stop for limiting the back stroke or turning movement of the cam 14 that carries the latch arm 13.

A multiple-link, extensible connection or sectional coupling device is used by me in providing for the partial opening of the sashes and still remain locked against intrusion from the outside. This extensible coupling device is composed of a lower link 18 pivotally-mounted at 19 at its lower end in the base or block 12 on the meeting-rail 3 of the upper sash 2 and having a horizontal stop 18^a (Figs. 2, 4 and 5) projecting from the elevated portion 16 of the block 12; a main or long middle link 20 pivotally connected at 21 at its lower end to the upper end of the link 18 and provided at its upper end with a lug or stop 23 (the latter as best seen in Fig. 4); an upper link 24 pivotally-connected at 25 to the upper end of said main link 20 and limited in movement to a slanting position by means of said stop 23, (to avoid dead-center) and provided at its upper end with a horizontal stop 26 on its inner face, and a lateral hook-arm 27; and an upright auxiliary-arm 28 that is pivotally connected or swiveled at 29 to the upper or outer end of said uppermost link 24 and is

further provided with vertical oppositely-extending hook-arms the lower one 30 of which hook arms is adapted to engage the raised cam-edge 9 of the latch-member 8 on the inner meeting-rail 5 when the sashes are locked, entirely closed or partially open, and the other or upper one 31 of which hook-arms is adapted to engage the upper edge of the overhanging-arm 10. The auxiliary-arm 28 is shown in section in Figs. 3 and 5, and forms a double-hook carrier-member for use in raising the multiple-link coupling-rod to extended position for the partially open window and, also, to return said multiple-link coupling-rod to folded or normal position, with the three links 18, 20 and 24, one back of the other in snug contact and small compass, as best shown in Figs. 2, 3 and 5, and horizontally parallel, out of unsightly view, on the lower meeting-rail 3 of the upper sash. When the links are down, in folded position, with the hook-arm 27 bridging over the middle of the main link 20 and its lower end resting on the lower end of the lowermost link 18, the latch-arm 13 of the eccentric 14 is swung forward into engagement with the upper face of said hook-arm 27 to prevent the unfolding of the links and to maintain the sashes in closed and locked position. A horizontal auxiliary-arm 13^a is provided on the eccentric 14 in vertical alinement with the latch-arm 13 and serves to rest on the main link 20 to prevent its rising when the sashes are closed and locked by means of the latch-member 8 on the meeting-rail 5 of the lower sash.

The horizontal stop 26 on the upper link 24 forms a barrier against which the double-hook carrier-member 28 rests in upright position, secure against further backward movement when the sashes are closed and locked and, also, holds said member 28 firm when the inclined rib or raised cam-edge 9 of the latch-member 8 is turned into locking engagement.

If the sashes are to be thrown wide open the releasing of the latch-member 8 from the double-hook carrier-member 28 is sufficient and the folded links of the extensible coupling rest normally on the meeting-rail 3 of the upper sash, with the latch-arm 13 in engagement with the hook-arm 27, ready for locking when the sashes are partly or wholly closed.

I claim:—

A locking device for window-sashes, to hold them in either full locked condition or partly open and the latter condition still locked against intrusion from the outside, and comprising a pivotal latch-member mounted on the meeting-rail of the lower-sash and having an upper overhanging lateral-arm, a block on the meeting-rail of the upper-sash alining with the said latch-member and provided with a horizontally turning or swinging overhanging lateral-arm or latch-member projecting from an eccentric or cam base, a stop on said block for limiting the rear or outer movement of the said last-named latch-member, an extensible multiple-link coupling pivotally connected at one end to the said block on the meeting-rail of the upper-sash and having a horizontal limiting-stop on the inner face of said block for the upward swinging or extending movement of the lowermost link of the coupling, a stop at the upper end of the middle or main link of the coupling for limiting the upward swinging or extending movement of the uppermost link, a pivotal-arm mounted at the outer end of the said uppermost link and provided with oppositely-extending hook-arms one of which is adapted to engage the lower edge of said overhanging-arm on the first-named latch-member and the other hook to engage the upper edge of said overhanging-arm on the first-named latch-member, a stop on the said pivotal-arm on the uppermost link adapted to limit the movement thereof and normally support it perpendicularly, and a lateral hook-arm or stop provided on the outer end of the said uppermost link extending toward the block on the meeting-rail of the upper-sash to aid in lowering the main link in closing the coupling and the window-sashes and, also, to present a bearing-surface for the engagement of the said horizontally-turning lateral-arm on the said block to prevent said sashes parting out of locked condition when closed.

WILLIAM FREMONT BARGER.