S. F. HILL AND J. W. COCHRAN.

VENTILATING SASH FASTENER.

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1,396,205.

Patented Nov. 8, 1921.

FIG. 1

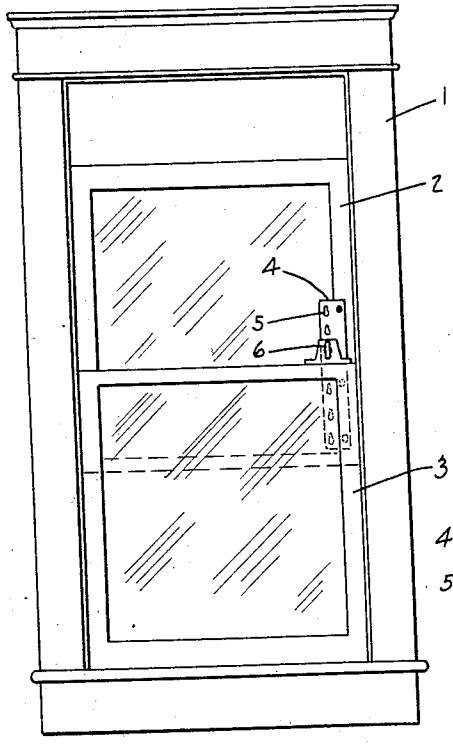


FIG. 2

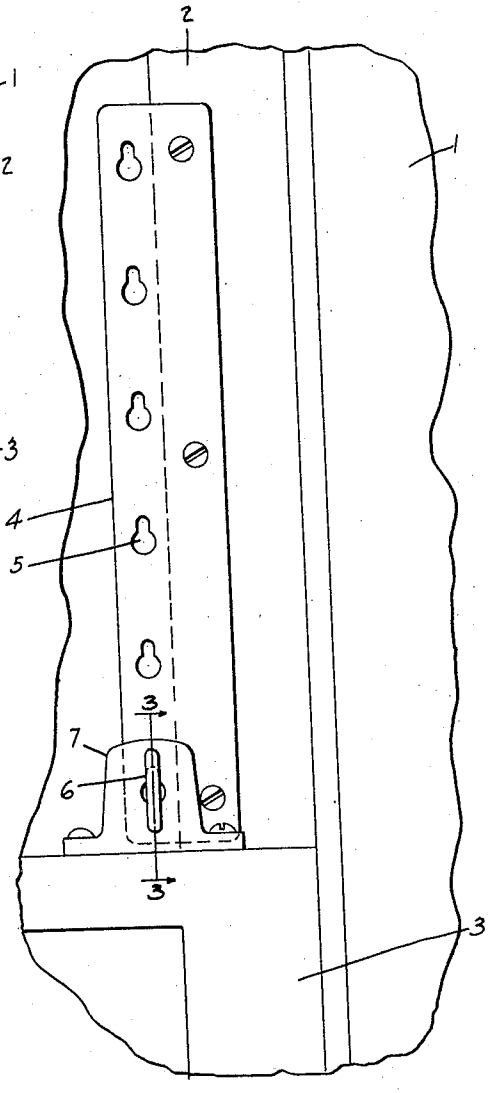


FIG. 3

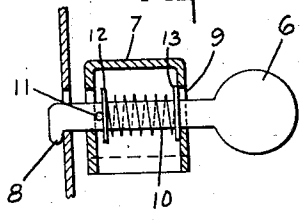
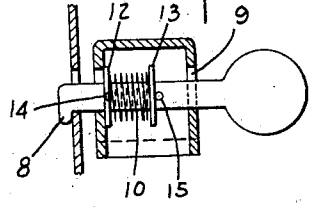


FIG. 4



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VENTILATING-SASH FASTENER.

1,396,205. Specification of Letters Patent. Patented Nov. 8, 1921.

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To all whom it may concern:

Be it known that we, SAMUEL F. HILL and JOHN W. COCHRAN, citizens of the United States, residing at Indianapolis, in the county of Marion and State of Indiana, have invented certain new and useful Improvements in Ventilating-Sash Fasteners, of which the following is a specification.

This invention relates to sash fasteners and is so constructed that when attached to window frames, said frames may be opened a limited distance for ventilating purposes and may not be opened a sufficient distance to admit the passage of a body below or above the frames.

A feature of the invention is the provision of a plate having a plurality of substantially key socket openings therethrough, which openings project over the glass portion of the window structure and beyond the edge of the sash to which the plate is attached so that it will not be necessary to deface the window frame or sash in applying the plate to use.

A further feature of the invention is the provision of a pin or bolt, and a housing therefor, which is designed to be attached to the other sash of the window structure, the end of the pin being shaped to fit the sockets or openings in the plate attached to the other sash, the bolt being spring pressed.

A further feature of the invention is in so arranging the spring in connection with the bolt that it may be utilized to direct tension against the bolt in either direction.

A further feature of the invention is the provision of openings in the housing for the bolt similar to the openings in the plate, whereby the end of the bolt may be withdrawn entirely into the housing and the bolt given a partial rotation, thereby holding the end of the bolt out of the path of the upper sash of the window structure, thus obviating any possibility of marring the sash when said sash is moved to its full open position.

Other objects and advantages will be hereinafter more fully set forth and pointed out in the accompanying specification.

In the accompanying drawings, which are made a part of this application,

Figure 1 is an elevation of a window structure showing the fastener applied thereto,

Fig. 2 is a fragmentary elevation of the window sash on an enlarged scale,

Fig. 3 is a sectional view as seen on line 3—3 Fig. 2, and

Fig. 4 is a view similar to Fig. 3 showing the action of the spring on the securing bolt reversed.

Referring to the drawings, 1 indicates a window frame which may be constructed in any suitable manner, 2 the upper window sash, and 3 the lower sash, said sashes being vertically slidable in the frame. In order to provide ventilating space either above or below the sash and at the same time secure the sash so that they cannot be opened further than the ventilating space, a plate 4 has one of its edges attached to the vertical side rail of the upper sash 2 while the opposite edge thereof projects a distance beyond the inner edge of the rail of the sash and extends over the glass or visual space in the sash, and in this projecting portion is provided a plurality of spaced sockets 5 which are preferably shaped similar to a key socket, one end of the socket being preferably circular and the opposite end thereof oblong.

Coöperating with the sockets 5 is a securing bolt 6 which extends through a housing 7, which housing is preferably fixed to the top rail of the lower sash 3 and is so positioned that the inner end of the bolt 6 will enter the sockets 5 in the plate 4. The inner end of the bolt 6 is provided with a laterally extending lug 8 which, when the bolt is being entered into or removed from one of the sockets, enters the elongated portion of the socket while the body of the bolt enters the circular portion of the socket and it will be readily seen that when the end of the bolt has been extended through one of the sockets and the bolt given a partial rotation, the lug 8 will overlap the inner face of the plate 4 and securely fasten the two sashes together until such time as the bolt is rotated to again bring the lug 8 into registration with the elongated portion of the socket. The two walls of the housing 7 through which the bolt extends are provided with sockets 9 similar in outline to the sockets 5, so that the bolt can be readily entered through the housing and the inner end of the bolt 5 may be held entirely out of the path of the upper bar of the sash 2 by withdrawing the end of the bolt 6 entirely into the housing 7 and then rotating the bolt to move the lug out of registration with the elongated portion of the socket 9 in the inner wall of the housing 7, this action holding the bolt in inoperative position until such time as the lug is again

brought into registration with the elongated portion of the socket 9.

The lengthwise movement of the bolt 6 in one direction is determined by a coiled spring 10 which surrounds that portion of the bolt 6 within the housing 7, and if inward pressure is to be directed against the bolt so as to normally hold the bolt extended into the path of the plate 4, a pin 11 is extended transversely through the bolt 6 forwardly of the spring 10, washers 12 and 13 being preferably positioned at opposite ends of the spring, the washer 12 bearing against the pin 11, while the washer 13 bears against the outer wall of the housing 7. If it is desired, however, to exert the pressure of the spring 10 against the bolt 6 in the opposite direction, or outwardly, the pin 11 is removed from the opening 14 through the bolt 6 and entered through a similar opening 15 also extending through the bolt 6, the spring 10 being compressed between the washers 12 and 13. In this instance the washer 12 will bear against the inner face of the wall of the housing 7 while the washer 13 will bear against the pin when it is introduced into the opening 15, and when so arranged the bolt 6 will be moved outwardly by the pressure of the spring when the lug on the bolt is brought into registration with the elongated portion of the socket 5 through which the bolt extends.

When the spring 10 is arranged as shown in Fig. 3 of the drawings, the bolt 6 is manually moved outwardly until the inner end thereof is entirely disengaged from the plate 4 when either the upper or lower sash may be properly adjusted for ventilating purposes, and the bolt then released, whereupon the tension of the spring 10 will force the bolt inwardly through the registering socket in the plate 4, and when so entered the bolt may be partially rotated, thereby securely fastening the two sashes together and rendering it absolutely impossible for any one to manipulate the lock except those on the interior of the room. When the spring 10 is arranged as shown in Fig. 4 of the drawings, it will require that pressure be applied to force the bolt inwardly for entering the end thereof through one of the sockets in the plate 4, the fastening operation between the parts being the same in both instances. In the latter construction it is but necessary to move the lug into registration with the elongated portion of the socket 5 in order to release the bolt from the plate as the pressure of the spring on the bolt is outward and will immediately move the bolt to inoperative position.

It will likewise be seen that in view of the simplicity of the various parts of this device it may be very cheaply constructed without lessening the strength and durability thereof, and may be very quickly applied to use by any one.

It will likewise be seen that as the bolt receiving sockets are clear of the parts of the sash to which the plate is secured it is not necessary to deface or in any manner form cavities in the sash for the accommodation of the end of the fastening bolt, and neither will the sash show defacement to any material extent should it be necessary to remove the fastening mechanism.

Having thus fully described our said invention, what we claim as new and desire to secure by Letters Patent, is:

1. The combination with the upper and lower sashes of a window structure, of a plate secured to one of said sashes and having sockets therein at a point beyond the edge of the sash, one end portion of said socket being round and the other end portion elongated, a housing secured to the other sash having sockets shaped similar to the sockets in the plate, a bolt adapted to fit the round portion of said sockets, and a laterally extending lug at the free end of said bolt adapted to fit the elongated portion of the sockets, the lug being adapted to enter within said housing and hold the end of the bolt out of the path of the upper sash when the lug is turned out of registration with the socket in the housing and adapted to pass through the sockets of said plate for securing the two sashes against movement independent of each other.

2. The combination with the upper and lower sashes of a window structure, of a plate having one of its edges connected with one of said sashes and its opposite edge projecting beyond the edge of the sash, the projecting portion of said plate having a plurality of substantially key-shaped sockets therethrough, a housing fixed to parts of the other sash, the front and rear walls of said housing having registering key-shaped sockets therethrough, a bolt extending through said sockets in the housing and adapted to enter the sockets in said plate, and a lug extending laterally from one end of said bolt for fastening said bolt against casual removal from the sockets, said bolt and lug conforming to the outlines of the sockets in the plate and housing.

3. A fastening mechanism for the upper and lower sashes of a window structure comprising a plate adapted to be secured to the upper sash and having one of its edges projecting beyond the edges of the upper sash, said projecting edge having a plurality of vertically extended sockets therethrough, the lower portionsof which are circular and the upper portions elongated, a housing fixed to the lower sash, a pin extending transversely through the housing, a laterally projecting lug on the inner end of said bolt adapted to pass through said sockets in the plate and hold the bolt against longitudinal movement

when the lug is moved out of registration with the socket, said bolt and lug being shaped to fit the circular and elongated portions respectively of said sockets, and a spring within the housing adapted to control the movement of said bolt in one direction.

4. A fastening means for the upper and lower sashes of a window structure comprising a plate having sockets therethrough, a housing, a bolt extending through said housing and having a pair of spaced openings therethrough, a pair of washers on said bolt, a spring within the housing and surrounding said bolt between said washers, and a pin adapted to be entered in one of said openings in the bolt for directing the pressure of the spring against said bolt in one direction, and be entered in the other opening for directing the pressure of the spring against the bolt in the opposite direction, said pin passing exteriorly of the washers in each instance.

In witness whereof, we have hereunto set our hands and seals at Indianapolis, Indiana, this 18th day of January, A. D. nineteen hundred and twenty-one.

SAMUEL F. HILL. [L. S.]
JOHN W. COCHRAN. [L. S.]

Witnesses:
CAREY S. FRYE,
M. L. SHULER.