J. C. Cochrane,

Sash Fastener.

No. 6,660. Patented Aug. 21, 1849.

Fig. 3.

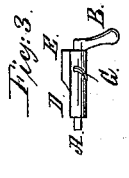


Fig. 4

Fig. 5.

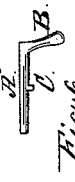


Fig. 6.

Fig. 2.

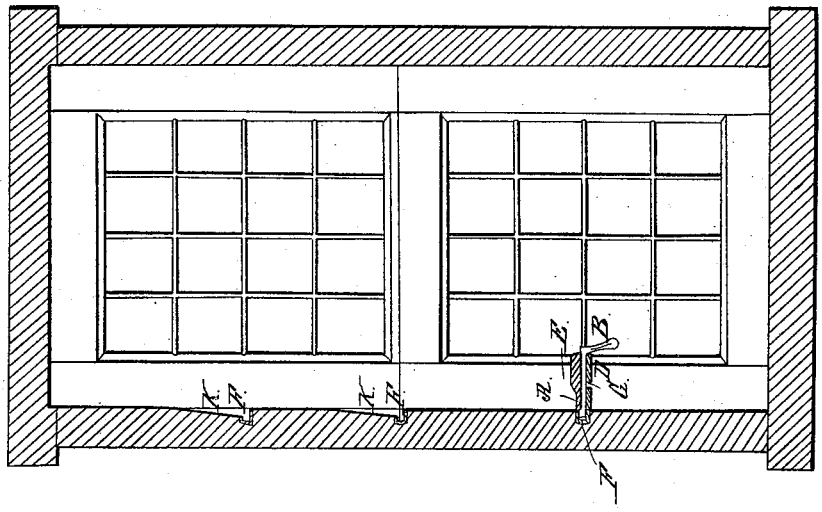
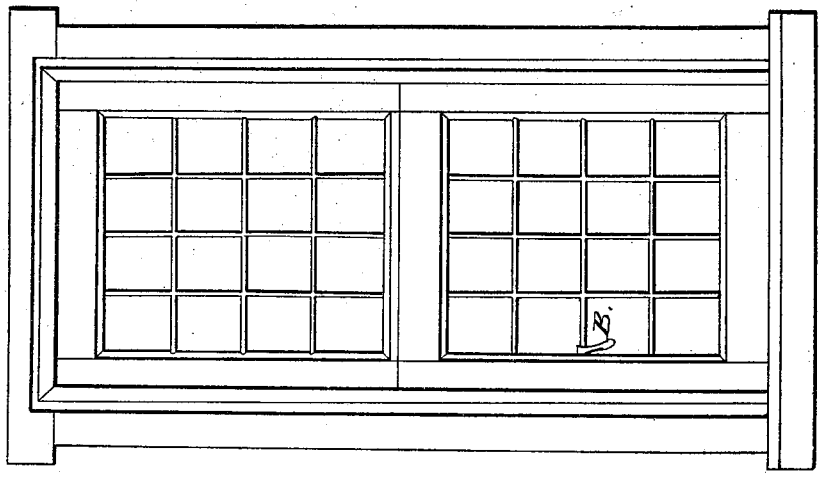


Fig. 1.



UNITED STATES PATENT OFFICE.

JAMES C. COCHRANE, OF ROCHESTER, NEW YORK.

SELF-ACTING SASH FASTENER AND STOPPER.

Specification of Letters Patent No. 6,660, dated August 21, 1849.

To all whom it may concern:

Be it known that I, JAMES C. COCHRANE, of the city of Rochester, in the county of Monroe and State of New York, have invented a new and useful Improvement in the Window-Sash Fastener, called "Cochrane's Sash Lock," which is described as follows, reference being had to the annexed drawings of the same, making part of this specification.

Figure 1, is an elevation representing the sash and the window casing. Fig. 2, is a vertical section through the window casing, representing the lower sash as locked. Fig. 3, is an elevation of the tubular case and bolt therein, the bolt being in the position it will assume when the sash is locked or suspended. Fig. 4, is an elevation of the same, representing the bolt as unlocked, and the handle thereof elevated. Fig. 5, is an elevation of the bolt, the handle being down. Fig. 6, is an elevation of the tubular bolt case.

The references designate the same parts in the several figures.

The bolt A, Fig. 5, consists of two parts—the bolt proper and handle B, both being made in one piece, the handle being joined to the end thereof nearly at right angles.

The bolt A is made straight and of a cylindrical form, and is provided with a projection C about equidistant between its inner end and the handle B, thereof, and is designed to fit in a spiral slot G, formed in the tubular bolt case D. Fig. 6, is the tubular bolt case, made of sheet iron or other metal and having a slot G cut spirally in the same near its center, and of a size sufficient to permit the projection C to play or move freely therein, to move the bolt in locking and unlocking the sash. The edges (one or both) of this tubular case D, where they are put together project and form a feather or flange E, to prevent the case from turning when inserted in the cavity made in the sash to receive it, and the case is made shorter than the bolt A, in order to permit the bolt to play freely in and out. The projection C, on the bolt A Fig. 5 does not extend beyond the outside of the tubular case, and does not therefore rub against the sash. A horizontal hole is bored in the side of the lower sash about midway between its top and bottom, of a diameter a little greater than the diameter of the tubular case, into which the said case and bolt are inserted and confined, in such a manner as to cause the side of the case on which the spiral slot G is formed, to be downward, (the slot not to extend so far round as to allow the handle to strike the glass,) and the handle of the bolt to be in a suspended position, when the bolt is forced out to lock the sash, as represented in Figs. 1 and 2; and in nearly an upright position when the bolt is withdrawn, and the sash is being raised or lowered; the tubular case being prevented from turning, as before stated, while operating the bolt, by the feather or flange E fitting in a slit in the sash.

F, F, F, are holes made in the side casing or stile of the window, next the side of the sash containing the bolt, bound with metallic thimbles of the required size to admit the end of the bolt, and are situated the required distance apart, for the bolt to enter the same and lock the sash when down, and suspend it when elevated to either one half, or its full height, as may be desired. An inclined depression or cavity K is made in the side immediately above each of the upper two holes, for the purpose of allowing the bolt to be forced part of the way in and out, gradually, from the sash, during its ascent and descent.

When it is desired to elevate and suspend the sash for ventilation or other purpose, the handle of the bolt must be elevated and turned to nearly a vertical position, the projecting pin C, on the bolt being made to move and rise in the slot G, in a spiral line, and withdraw the bolt as represented in Fig. 4 from the hole F, in the window casing and thus allow the sash to be raised until opposite the next or middle hole or upper one, as desired, when the gravity of the handle will act upon the bolt, without the agency of the hand, as a lever, and force the projecting pin C, through the spiral slot G, and thus force the bolt into the hole E, and hold or suspend the sash—the handle being suspended in a vertical position, and prevent said sash from being raised or lowered, without first elevating the handle as before stated, to unlock the same.

A similarly constructed bolt and tubular case, may be attached to the upper window sash in the same manner; so that the upper sash may be lowered for the purposes of ventilation, in which case he holes in the window casing for the upper sash will be arranged in such relation to the line on

which the bolt of the lower sash moves up and down as not to interfere with its operation.

The handle of the bolt and the bolt may be made of iron, polished brass or other metal, and the handle of any required form and shape, to act as a lever on said bolt.

In preparing the case to receive the bolt first cut an oblong slot in the sheet of metal while it is in a flat state. Then wind or wrap the sheet around the bolt bringing the two edges together to form the feather or flange; this will cause the oblong slot to assume the form of a spiral groove by which the bot will be made to move horizontally back and forth as the bolt is turned on its axis to the right or to the left—the projection or stud on the bolt being in the spiral slot and rubbing against its sides. By this arrangement there will not be as much friction as in the use of a screw and it will throw the bolt out rapidly and to a considerable distance, which cannot be done by an ordinary screw.

What I claim as my invention and desire to secure by Letters Patent is—

The combination of the case (D), made as described, with the bolt (A), also made as described, by which the bolt is made to self-act in locking the sash to the window frame the spiral groove (G) in the case acting against the cog C, projecting from the periphery of the bolt, to move the latter forward and throw it into the thimble (F) of the frame as the bolt is turned by the descent of the outer exremity of the handle (B), in the arc of a circle—the bolt being again withdrawn from the thimble to unlock the sash by simply raising the outer end of the handle in the same arc of a circle, as herein fully set forth.

In testimony whereof I have hereunto signed my name before two subscribing witnesses this 19th day of June 1849.

JAMES C. COCHRANE.

Witnesses:

DAN'L MCHENRY,

HORACE JONES.