No. 632,140. Patented Aug. 29, 1899.

G. E. & L. PARKER.

SASH LOCK.

(Application filed Apr. 7, 1899.)

(No Model.)

Fig. 1.

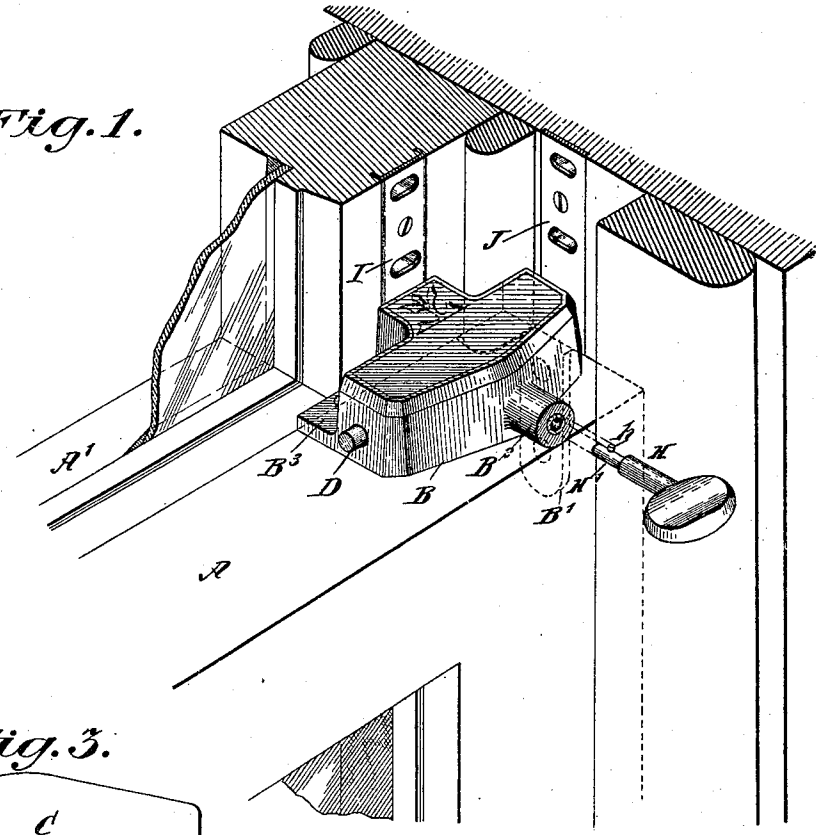


Fig. 3.

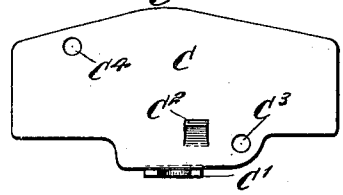


Fig. 2.

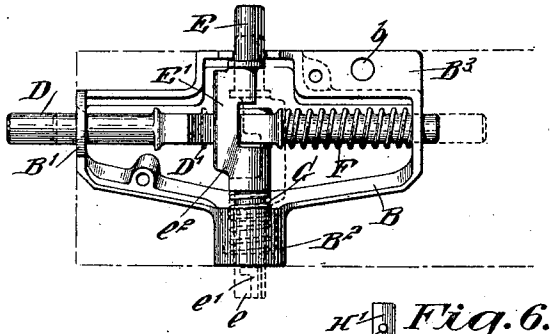


Fig. 4.

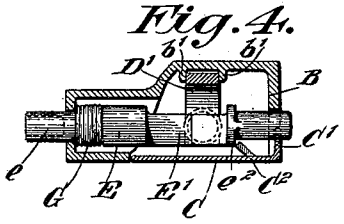


Fig. 5.

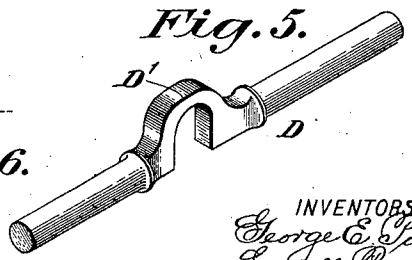
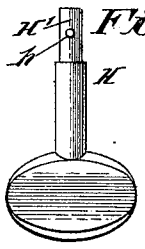


Fig. 6.



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UNITED STATES PATENT OFFICE.

GEORGE E. PARKER AND LOWELL PARKER, OF NEWARK, NEW JERSEY, ASSIGNORS, BY MESNE ASSIGNMENTS, TO THE GOODRICH MANUFACTURING COMPANY, OF SAME PLACE.

SASH-LOCK.

SPECIFICATION forming part of Letters Patent No. 632,140, dated August 29, 1899.

Application filed April 7, 1899. Serial No. 712,058. (No model.)

To all whom it may concern:

Be it known that we, GEORGE E. PARKER and LOWELL PARKER, of Newark, in the county of Essex and State of New Jersey, have invented a new and Improved Sash-Lock, of which the following is a full, clear, and exact description.

Our invention relates to an improvement in locks for securing upper and lower sashes together and for securing them at the same time to the casing, so that they cannot be raised or lowered without the lock is first freed.

Our invention comprises the novel features which will be hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a perspective view showing the meeting edges of the two sashes, with the lock in place. Fig. 2 is an inverted plan view of the lock, the bottom plate being removed. Fig. 3 is a plan view of the plate which forms the bottom of the lock. Fig. 4 is a cross-sectional elevation of the lock. Fig. 5 shows one of the locking-bolts in perspective, and Fig. 6 shows the key by which the lock is operated.

The objects sought to be accomplished by our locking device are, first, to secure the two sashes A A′ to each other, so that neither may be raised or lowered, and, second, to secure one of the sashes to the casing, so as to hold it rigidly when adjusted.

Another object is to so construct the device that its manufacture may be simplified and cheapened as much as possible.

The locking mechanism is inclosed within a casing B, which is made of metal and is hollow. This casing has bearings for two locking-bolts which cross each other at right angles, one of the bolts being adapted to enter a recess or hole within one of the sashes and the other bolt being adapted to enter recesses or holes in the window-casing. These two bolts are each provided with a central yoke or crank, which cranks mutually engage with each other, so that one bolt may be reciprocated by turning the other bolt.

The bolt D, which extends longitudinally of the device and which engages with the window-casing, has a rounded portion at each end fitting within holes formed in the ends of the casing B. These rounded portions are of such length that the bolt may be put in place by sliding one end close to the shoulder on said portion, when the opposite end will be far enough within the casing so that it may be inserted into its bearing from the inside. This bolt has a spirally-coiled spring F surrounding one end thereof and normally holding the bolt projected. The bearing for one end of the other bolt E is at the bottom of a socket formed within a projecting boss B^2, and the other end of the bolt is supported within the bearing formed by a notch in the edge of the casing.

The yoke or crank E′, which is formed in the central portion of the cross-bolt E, lies within a yoke D′, formed within the central portion of the longitudinally-extending bolt D, so that if the bolt E is turned upon its axis the bolt D will be retracted within the casing and the device be thus freed from engagement with the window-casing. That portion of the cross-bolt E which lies within the socket in the boss B^2 has a spirally-coiled spring G, surrounding the same and acting to project the bolt.

The open side of the casing, which is placed downward or next to the top of the lower window-sash A, is closed by a plate C, which is shown in Fig. 3. This plate C is secured in place by screws passing through holes C^3 C^4 therein, and said plate is provided on one edge with an upwardly-turned lip C′, which is shaped to fit within the notch in the casing B, which receives one end of the bolt E, and thus to form a support for one side of the bolt. The plate C is also provided with a stop C^2, which, as herein shown, is formed by stamping up a small portion of the plate. This stop is adapted to engage a shoulder of the yoke E′ upon the cross-bolt E or a flange e^2 to prevent the bolt from sliding backward after it has been withdrawn and turned. To

permit of the bolt sliding freely over the catch C^2, the collar e^2 is removed on one side.

The longitudinally-extending bolt D, which engages with the window-casing, is withdrawn by turning the bolt E upon its axis. It is evident, however, it does not free the bolt E from the upper sash. This is done by pulling the bolt E backward after it has been turned so as to withdraw the bolt D. This is done by means of a key H, which has a section H′ adapted to enter a hole formed in the end *e* of the bolt E. This end of the bolt is bored or otherwise made hollow and has an L-shaped or bayonet slot *e′* formed therein at one side, which slot is engaged by a pin *h*, projecting from one side of the reduced section H′ of the key H. When the key is inserted in the end of the bolt, it is first turned, which starts to withdraw the bolt D. While the bolt D is being withdrawn an outward strain is placed upon the key and the bolt E, which is connected thereto, so that when the yoke E′ of the cross-bolt E rests in proper position it may also be withdrawn. A completion of the turning motion of the bolt E throws the shoulder e^2 back of the stop C^2, formed upon the plate C, and thus prevents the bolt from being forced outward by the action of the spiral spring G. The key H may then be removed and the lock will be held with the bolts withdrawn, so that the window may be freely moved up or down.

Upon the end of the casing B which lies at the outer edge of the window-sash is formed a bar B′, which extends downward at the outer edge of the sash and should be let into the surface of the sash, so that its outer surface is flush with the sash. This bar is provided with holes adapted to receive screws, by which it may secured to the sash. The body of the casing is also provided with an ear B^3, extending outwardly from one edge and having a screw-hole *b* therein. The upper sash A′ has a strip I let into its surface and provided with holes at intervals adapted to receive the end of the cross-bolt E. The window-casing also has a similar strip J, which is let into its surface and provided with holes adapted to receive the longitudinal locking-bolt D.

It is impossible to release this lock except by the use of a special key, thus adapting it to use in public buildings, particularly schools, where it is desired a window shall be adjusted only by those in authority. It also makes it a safe lock to place upon windows, as it is impossible to release it by breaking the glass unless a person has a proper key. It is also sightly in its appearance and cheap to manufacture.

Having thus described our invention, we claim as new and desire to secure by Letters Patent—

1. A sash-lock comprising a casing adapted to be secured to the lower sash at one edge, a bolt mounted to slide therein longitudinally of the sash and having its end projecting to enter holes in the window-casing, said bolt having a yoke formed in its middle portion, a cross-bolt mounted to turn and slide in the casing and having a yoke or double crank entering the yoke on the first bolt, one end of said cross-bolt projecting to enter holes in the upper sash, the other end of the cross-bolt being journaled in the casing and lying wholly within the casing, this end of the bolt having an axial hole and an L-shaped slot extending inwardly from its end, and a key having a round stem and a projecting radial pin adapted to enter said hole and slot to turn and to slide the crosss-bolt in its bearings.

2. A sash-lock comprising a casing adapted to be secured to one sash, two locking-bolts mounted therein and having mutually-engaging yokes or cranks, whereby one may actuate the other, one end of each normally-projecting end adapted to respectively engage the other sash and the window-casing, a removable actuating-key adapted to lockingly engage one of the bolts to turn and slide it, and a catch adapted to engage the key-bolt when so turned and withdrawn to hold both bolts withdrawn.

3. A sash-lock comprising a casing open at one side and having bearings therein for two crossed locking-bolts, a plate closing the open side of the casing, one of the bolt-bearings being made as a slot extending to the open side of the casing and the plate having a lip extending into said slot, and an inwardly-projecting catch opposite one edge of said lip two crossed bolts lying in said bearings and having mutually-engaging yokes or double cranks whereby one may turn the other, a key adapted to engage one of the bolts to turn and slide it, the crank of the key-bolt when thus turned engaging the catch to hold both bolts withdrawn, and springs acting upon the bolts to project them.

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Witnesses:
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