No. 832,731. PATENTED OCT. 9, 1906.

W. S. JAMES.

SASH LOCK.

APPLICATION FILED OCT. 10, 1905.

Fig. 2.

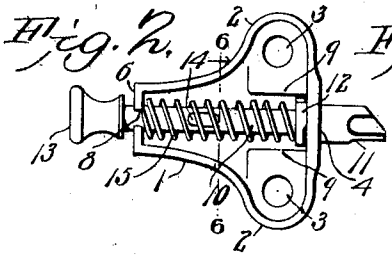


Fig. 6.

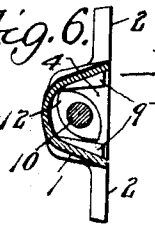


Fig. 7.



Fig. 3.



Fig. 4.





Fig. 5.

Witnesses

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# UNITED STATES PATENT OFFICE.

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## SASH-LOCK.

No. 832,731. Specification of Letters Patent. Patented Oct. 9, 1906.

Application filed October 10, 1905. Serial No. 282,181.

*To all whom it may concern:*

Be it known that I, WILL S. JAMES, a citizen of the United States, residing at North Chicago, in the county of Lake and State of Illinois, have invented a new and useful Sash-Lock, of which the following is a specification.

This invention relates to sash-locks, and has for its object to provide an improved device of this character capable of being applied to upper and lower sashes and also adjustable to enable the use of the device at either side of a window-sash.

Another object of the invention resides in the novel assemblage of parts whereby the locking-bolt may be conveniently applied and removed and also reversed, so as to enable the use of the device at either side of a window-sash.

With these and other objects in view the present invention consists in the combination and arrangement of parts, as will be hereinafter more fully described, shown in the accompanying drawings, and particularly pointed out in the appended claim, it being understood that changes in the form, proportion, size, and minor details may be made within the scope of the claim without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawings, Figure 1 is a front elevation of a portion of a window-sash and frame with the lock of the present invention applied thereto. Fig. 2 is a rear elevation of the lock. Fig. 3 is a similar view showing the bolt withdrawn preparatory to shifting the same into a reversed position. Fig. 4 is a detail perspective view of the lock-case. Fig. 5 is a detail view of the locking-bolt. Fig. 6 is a cross-sectional view on the line 6 6 of Fig. 2.

Like characters of reference designate corresponding parts in all of the figures of the drawings.

The present lock includes a substantially semicylindrical case 1, which is flared toward its front end, so as to form ears 2, which are pierced by openings 3 for the reception of screws or other fastenings to secure the case to a window-sash or the like with the open side of the case closed by the frame of the sash. The front end of the case is closed by a wall 4, having a circular bolt-opening 5 therein. The rear end of the case is closed by a wall 6, pierced centrally by a circular opening 7 and having a slot 8 intersecting the rear edge of the wall 6 and the opening 7. Within the forward laterally-enlarged portion of the case at opposite sides of the longitudinal center thereof are longitudinally-disposed shoulders 9, which somewhat reduce the width of the interior of the case at the forward end thereof.

The bolt 10 includes a cylindrical stem having an enlarged beveled head or forward portion 11, terminating at its inner end in a cam 12, which produces radial projections at opposite sides of the stem. The rear end of the stem carries an enlarged finger-piece 13, and about midway of the stem there is a notched or reduced portion 14.

In assembling the bolt with the case a helical spring 15 is placed upon the stem between the cam 12 and the finger-piece 13, after which the spring is compressed toward the cam 12, so as to expose the reduced portion 14 of the stem in order that said reduced portion may be passed laterally through the slot 8 into the opening 7, whereupon the bolt is moved forwardly, so as to pass the head 11 through the opening 5. When thus assembled, the spring 15 bears against the cam 12 and against the rear wall 6 of the case, whereby the bolt is yieldably maintained at its forward limit. The projections afforded by the cam 12 are arranged to bear against the respective shoulders 9 and prevent rotation of the bolt. By withdrawing the bolt against the tension of the spring until the projections are brought in rear of the shoulders 9 the stem may be given a half-rotation, so as to reverse the position of the beveled portion, whereby the lock may be used at either side of a window-sash.

In practice the lock is attached to the frame of a window-sash—such, for instance, as indicated at 16 in Fig. 1 of the drawings—said lock being located at one of the lower corners of the sash. For coöperation with the bolt of the lock a rack 17 is secured to the window-frame 18 and is provided with a series of shoulders 19, upon which the bolt may rest to support the sash in various elevated positions. By preference the rack terminates short of the window-sill in a shoulder 20, beneath which the bolt may be engaged, so as to lock the sash when closed. At a suitable height the rack is provided with a seat 21 for the reception of the bolt, so as to prevent further opening of the sash from the exterior of the building. By preference the shoulders 19 are in the nature of ratchet-

shoulders in order that the window-sash may be pushed upwardly without requiring that the bolt be manually withdrawn. While I have shown and described a particular form of rack, it will of course be understood that the lock is not dependent upon any particular form of rack, and therefore the rack may be materially varied without affecting the lock of the present invention.

Upon reference to Fig. 6 of the drawings it will be noted that the cam or cross-head 12 is elliptical in shape, its major axis exceeding the length of the space between the shoulders 9, whereby the cross-head can assume only a diagonal position between the shoulders with its opposite sides in contact therewith and one terminal side portion engaging the front of the case, whereby rotary looseness of the bolt is prevented.

By withdrawing the bolt until the cross-head is in rear of the shoulders 9 said bolt may be rotated to bring the cross-head across and in engagement with the rear ends of the shoulders, as shown in Fig. 3 of the drawings, whereby the bolt will be held retracted without manually holding the same.

In view of the fact that the depth of the case from front to rear is less than the length of the major axis of the cross-head 12 it is necessary to withdraw the head of the bolt entirely through the opening 5 and then to tilt the bolt in order that it may be given a half-rotation for reversing the position of the beveled terminal of the bolt.

Having thus described the invention, what is claimed is—

A lock comprising a case having front and rear openings and a passage connecting the openings, the forward portion of the passage being constricted, that portion of the passage in rear of the constricted portion being laterally enlarged, and a bolt working in the passage and projecting through the openings, said bolt having a cross-head working in the constricted portion of the passage to prevent rotation of the bolt, the bolt capable of being retracted to bring its cross-head in rear of the constricted portion of the passage and into the enlarged portion thereof, said enlarged portion being of a size to permit an unrestricted rotation of the bolt when the cross-head is located therein.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

WILL S. JAMES.

Witnesses:
ALFORD YERGEY,
LOUIS VANDENHOOK.