J. H. BANTA.
Sash-Lock.

No. 213,609. Patented Mar. 25, 1879.

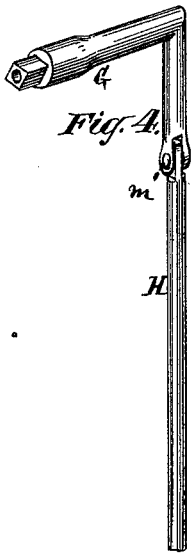

Fig. 4.

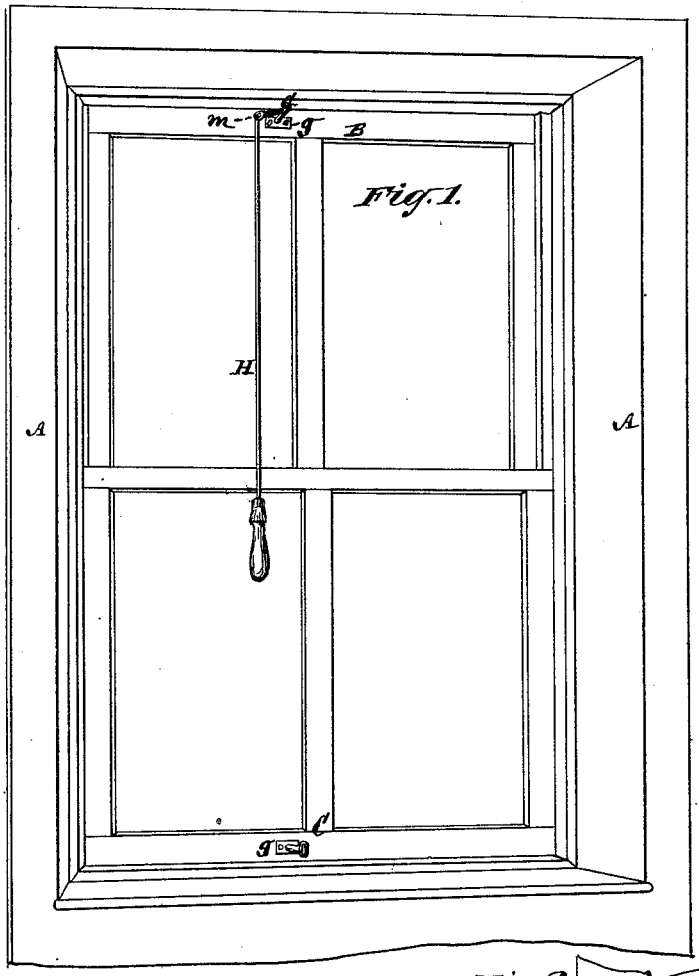

Fig. 1.

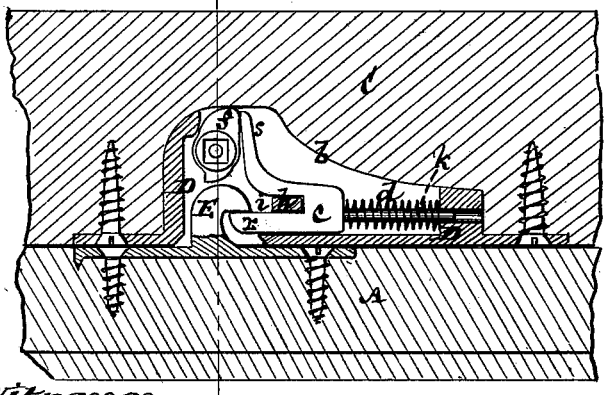

Fig. 2.

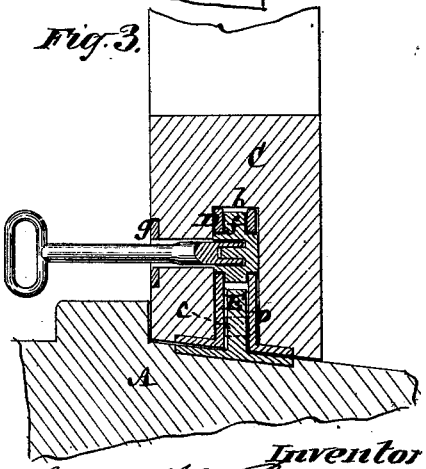

Fig. 3.

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UNITED STATES PATENT OFFICE.

JAMES H. BANTA, OF SPARKILL, ASSIGNOR OF ONE-HALF HIS RIGHT TO JACOB J. BANTA, OF NEW YORK, N. Y.

IMPROVEMENT IN SASH-LOCKS.

Specification forming part of Letters Patent No. **213,609**, dated March 25, 1879; application filed January 9, 1879.

To all whom it may concern:

Be it known that I, JAMES H. BANTA, of Sparkill, in the county of Rockland and State of New York, have invented certain Improvements in Locks for Sashes and means of operating the latter, also applicable in part to sliding doors; and I do hereby declare that the following is a description, reference being had to the accompanying drawings, forming part of this specification.

This invention, although applicable, in part, to sliding doors or horizontal sashes, is mainly designed to be applied to upright window-sashes; and consists in a novel combination of devices for positively locking the sashes or doors by the act of closing the latter, subject to control by a key for opening the same and for setting the locking devices, so that said sashes or doors may, when necessary or desirable, be opened or closed without the intervention of a key.

The invention also consists in a combined cranked key and lifter for operation in connection with the escutcheon of a lock, to raise and lower, as well as to lock and unlock, the upper one of a pair of sashes.

In the accompanying drawings, Figure 1 is a perspective view of a window-frame fitted with upper and lower sashes and having my invention applied. Fig. 2 is a vertical longitudinal section, upon a larger scale, through the locking portion of the lower sash and window-frame, in part, and Fig. 3 a vertical transverse section thereof on the line *x x* of Fig. 2. Fig. 4 is a perspective view of a combined cranked key and lifter for use in connection with the upper sash.

A is a window-frame, and B an upper sliding sash, and C a lower sliding sash, working therein. Locks D are applied, respectively, to the lower rail of the lower sash and to the upper rail of the upper sash at a point or points intermediate of the length of said rails. Said sashes are locked, when closed, by the engagement of the bolts of the locks with hooks secured to the window-frame. These hooks are prevented from presenting an unsightly appearance by arranging them so that they are concealed by the lower stop-bead and upper parting-bead of the window-frame.

The construction of either lock, the case of which is let into a mortise, *b*, in the sash, is illustrated in Figs. 2 and 3 of the drawings, *c* being the bolt of the lock, which is shot by a spring, *d*, to engage with a fixed hook, E, secured to the window-frame, and *f* a rotating combined follower and stop for throwing or holding back the bolt.

Each lock has an escutcheon, *g*, countersunk in the face of the sash-rail which carries the lock. The bolt *c* of each lock is a notched one, and is guided in part by a fixed stud, *h*, arranged within the notch *i*, and in part by a rear stem, *k*. The portion *r* of said bolt on one side of the notch forms the nose which engages with the fixed hook E, and the portion *s* of the bolt on the other side of its notch forms an arm, against which the follower and stop *f* bear. Said combined follower and stop is of a cam construction, and may be turned by a key, inserted through the escutcheon, either to throw back the bolt for the purpose of unlocking the sash, or into a position, as shown in Fig. 2, to admit of the bolt, when the sash is being closed, first being thrown back by its contact with the rounded back of the fixed hook, and then of being shot forward by its spring to engage with the hook. This provides for the self-locking operation of the sash by the action of the spring on the bolt, but requires a key to unlock it. When it is not necessary, however, to have the sash self-locking, then the combined follower and stop of the lock is left turned to hold the bolt back, thus admitting of the sash being worked up or down without interference by the lock; and if required at any time to lock the sash, it is only necessary to insert the key and turn the follower and stop to its normal position, which admits of the free operation of the bolt by its spring.

A straight key, as shown in Fig. 3, may be used to unlock the sash and to lock it by suitably adjusting the follower and stop of the lock; but it is preferred to use, especially for the upper sash, a cranked key, G, pivoted at the outer end of its cranked portion or arm, as at *m*, Figs. 1 and 4, to a rod, H, which, combined with the key, forms a lifter for raising the upper sash, and the escutcheon *g*, within

which the key is entered, constitutes the "lift" of the sash, as well as the escutcheon of its lock, thus doing away with a separate lift. Such lifter, by the entry of the key within the escutcheon, not only serves to raise or lower the sash, but also to lock or unlock it by suitably pulling or pushing on the rod H in direction of its length to turn the key in the lock, the cranked arm or portion of the key to which said rod is pivoted operating as a lever to turn the key. Such construction of a combined key and lifter provides for a very limited lateral movement of the lifter to turn the key.

I claim—

1. The combination, with the spring-bolt having notch *i*, nose *r*, and arm *k*, of the rotary cam-follower *f*, adapted to throw and lock said bolt by turning against and lying longitudinally in the path of said arm, and the hook E, arranged upon a permanent part of the window-frame, and adapted to engage said nose, substantially as set forth.

2. The combination, with the sliding spring-bolt having nose *r*, arms *s*, and stem *k*, arranged in a suitable guide, of the rotary cam *f*, adapted to move said arm, and the hook E, adapted to engage said nose.

3. The combination, with the elbow or crank key G, having one end adapted to engage and turn the rotary cam *f*, of the rod H, pivoted to the opposite end of said key, whereby said key is adapted both to unlock and lift the upper sash, substantially as described.

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