L. TRAFELET.

SASH LOCK.

APPLICATION FILED SEPT. 10, 1910.

980,574.

Patented Jan. 3, 1911.

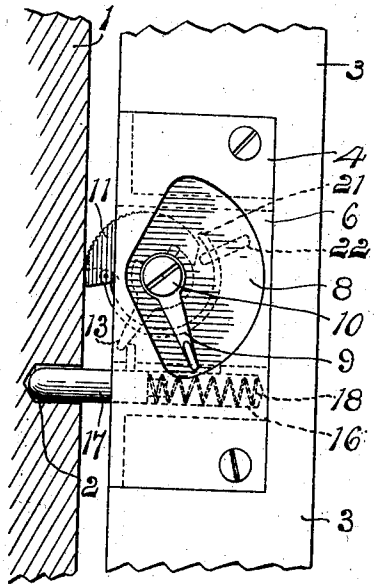

Fig. 1

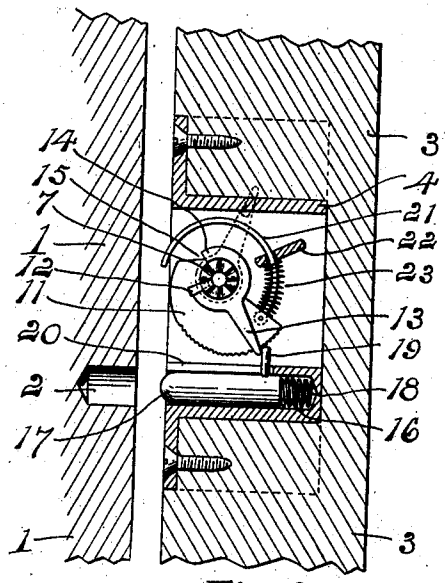

Fig. 2.

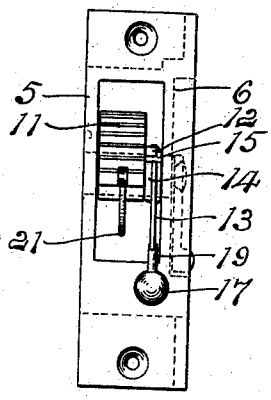

Fig. 3.

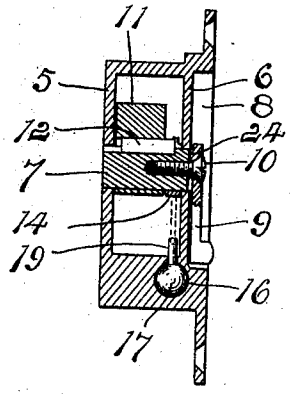

Fig. 4

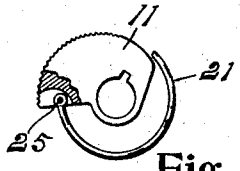

Fig. 5

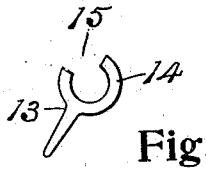

Fig. 6

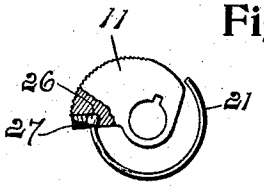

Fig. 7.

Witnesses

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UNITED STATES PATENT OFFICE.

LOUIS TRAFELET, OF FLINT, MICHIGAN.

SASH-LOCK.

980,574. Specification of Letters Patent. **Patented Jan. 3, 1911.**

Application filed September 10, 1910. Serial No. 581,368.

To all whom it may concern:

Be it known that I, LOUIS TRAFELET, a citizen of the United States of America, residing at Flint, in the county of Genesee and State of Michigan, have invented certain new and useful Improvements in Sash-Locks, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to improvements in sash locks and its object is to provide combined means for locking the sash and means for holding the same in any position to which it may be raised, together with certain other new and useful features in the construction and arrangement of parts, all as hereinafter more fully described, reference being had to the accompanying drawings in which,

Figure 1 is an elevation of a device embodying the invention showing the same secured to a portion of a window sash and the parts in locking position; Fig. 2 is a vertical section of the same showing the parts in unlocked position; Fig. 3 is an edge elevation of the lock; Fig. 4 is a transverse vertical section of the same; Fig. 5 is a detail of the cam; Fig. 6 is a detail of the bolt operating lever; and Fig. 7 is a detail similar to Fig. 5, showing a modification in the manner of attaching the guide rod.

As shown in the drawing, 1 represents a portion of a window frame provided with one or more holes 2 in its edge adjacent to the edge of the window sash 3. Secured within a recess in the edge of the window sash is a casing 4 having inner and outer walls 5 and 6. Mounted within suitable openings in the walls 5 and 6 is a shaft 7 and a recess 8 is formed in the outer face of the wall 6 to receive an operating handle or lever 9 which is adjustably secured by means of a screw 10 to the projecting end of the shaft 7, which end is formed with radial notches one of which is engaged by a lug 24 on the lever to hold said lever in the position to which it is adjusted relative to the shaft. Within the chamber of the casing is an eccentric or cam member 11 secured to the shaft 7 to turn therewith by means of a key 12 which key projects beyond the end of the eccentric to engage and operate an arm or lever 13 mounted upon the shaft to turn freely thereon. The hub or ring portion 14 of the arm which embraces the shaft is cut away to receive the end of the key 12 and the width of said notch or cut away portion 15 is much greater than the width of the key, thus providing lost motion between the shaft and arm 13 so that the eccentric member may be turned a short distance without turning the arm.

Movable longitudinally within a suitable bore or socket 16 in the casing adjacent to the lower side of its chamber, is a bolt 17 adapted to be projected into the opening 2 in the window frame to lock the sash in closed position. This bolt is projected by means of a coiled spring 18 within the inner end of the socket and a pin 19 on the bolt extends upward through a slot 20 into the chamber of the casing, in position to be engaged by the lower end of the arm 13 so that when said arm is turned by the turning of the shaft 7 in one direction, the bolt will be retracted. A curved guide rod 21 is pivotally attached at one end to the eccentric member 11 by providing an eye 25 on said rod engaging a slot in the eccentric, and extends concentrically with the axis of the shaft through a guide opening in a lug 22 on the casing. A coiled spring 23 sleeved on the guide rod between the eccentric and the lug exerts a force to normally hold the eccentric turned to projected position. As shown in Fig. 7 said rod 21 may be attached to the eccentric by providing a head or ball 26 on the end of the rod fitting within a socket provided therefor in the eccentric and held therein by a plug 27.

When the parts are in the position shown in Fig. 1 with the large side of the eccentric which is suitably roughened or corrugated engaging the edge of the window casing and the bolt 17 projected, the eccentric may be turned into inoperative position and the bolt retracted, by turning the operating lever 9 upward in its recess. The first portion of the movement of said operating lever will turn the eccentric against the action of the spring 23 out of engagement with the edge of the casing 1 without turning the arm 13, the end of the key 12 moving in the slot or notch 15 of the arm. Further movement of the operating lever will bring the said key into engagement with the end of the ring portion 14 of the arm and turn said arm into engagement with the pin 19 on the bolt 17 and thus move the bolt inward against the action of its spring 18. The sash may then be raised and held in its raised position by releasing the operating lever 9 and per-

mitting the spring 23 to turn the eccentric into engagement with the window casing, such movement of the eccentric being permitted by reason of the free turning of the arm 13 independently of the movement of the bolt which will not be fully projected by its spring when the sash is raised unless an opening 2 is provided in the window casing to receive it.

It is obvious that the details of construction may be changed without departing from the spirit of my invention and I do not wish to limit myself to any particular form or arrangement of parts.

Having thus fully described my invention what I claim is:—

1. A device of the character described comprising a casing, a shaft mounted in said casing, an eccentric secured upon said shaft within the casing to turn therewith, a longitudinally movable bolt in the casing adapted to be projected therefrom, an arm free to turn upon the shaft, and means on the shaft for engaging and turning the arm to retract the bolt.

2. A device of the character described comprising a casing, a shaft mounted in said casing, an operating arm for turning the shaft, an eccentric on the shaft within the casing, a longitudinally movable bolt adapted to be projected from the casing, an arm to engage and retract the bolt having a ring portion embracing the shaft and formed with a cut away portion, and means on the shaft projecting into the cut away portion of the ring to engage the ring and turn the arm when the shaft is turned, said cut away portion being of a length to provide lost motion between the said arm and shaft.

3. A device of the character described comprising a casing, a shaft mounted in said casing, an operating arm secured to the outer end of the shaft, an eccentric on the shaft, a key securing the eccentric to the shaft and having a projecting end, an arm formed with a ring portion to embrace and turn upon the shaft and cut away at one side to receive the projecting end of the key, a longitudinally movable bolt in the casing, adapted to be projected therefrom and to be retracted by said arm on the shaft, and a spring for projecting the bolt.

4. A device of the character described comprising a casing, having a recess in the outer side of one wall thereof, a shaft mounted in the casing, an arm on the outer end of the shaft within the recess, an eccentric secured to the shaft within the casing, a bolt movable longitudinally within a bore in the casing, a spring for projecting the bolt, a pin on the bolt movable within a slot in the side of a bore, an arm to engage the pin and free to turn upon the said shaft, and means on the shaft for turning the arm and providing a lost motion between said shaft and arm.

In testimony whereof I affix my signature in presence of two witnesses.

LOUIS TRAFELET.

Witnesses:
A. M. Dorr,
Otto F. Barthel.