B. E. TAYLOR.

LOCK ADJUSTER FOR WINDOWS.

APPLICATION FILED JAN. 30, 1915.

1,240,902. Patented Sept. 25, 1917.

Fig. 1

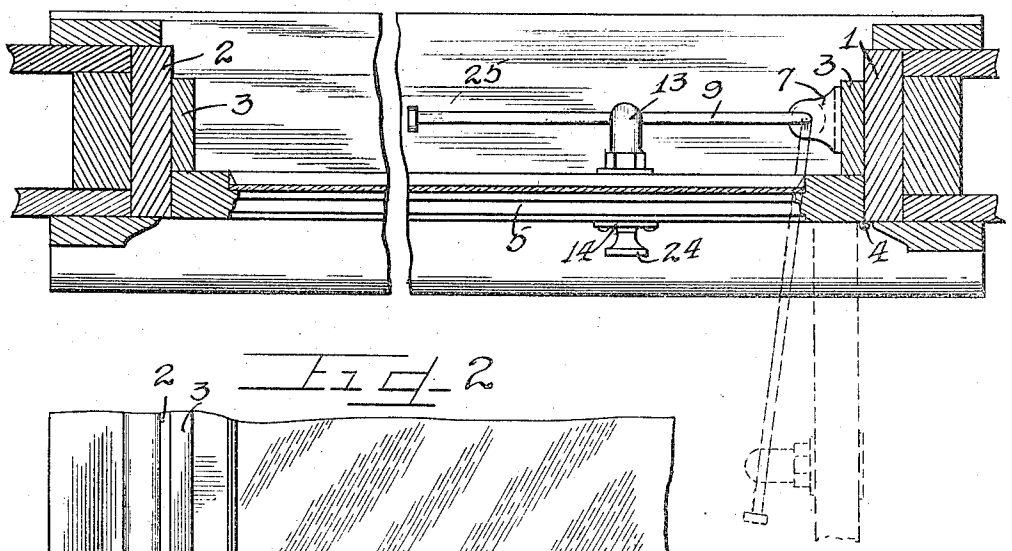


Fig. 2

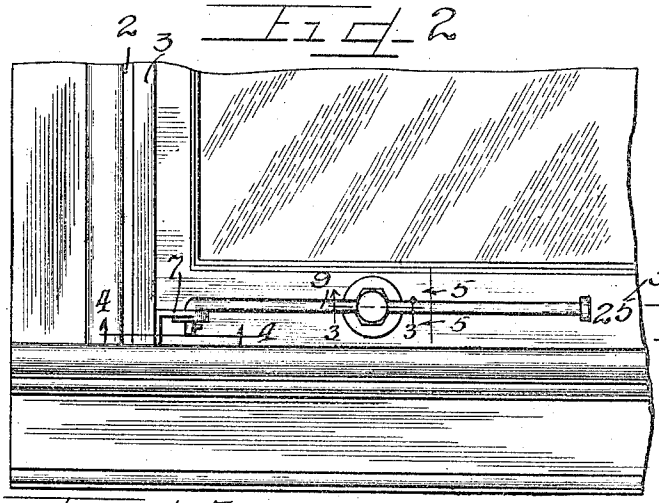


Fig. 4

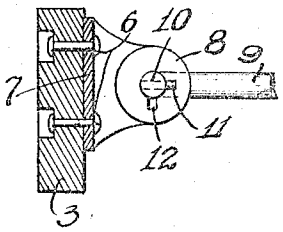


Fig. 3

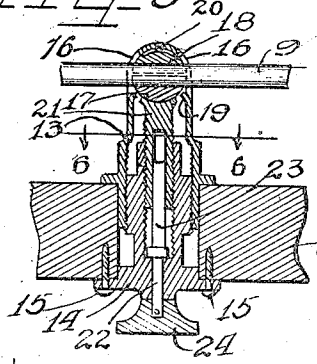


Fig. 5

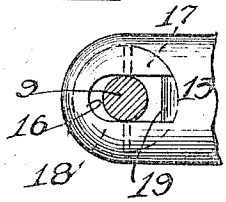
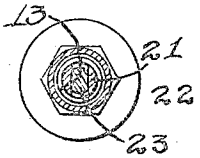


Fig. 6



Witnesses

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LOCK-ADJUSTER FOR WINDOWS.

1,240,902. Specification of Letters Patent. Patented Sept. 25, 1917.

Application filed January 30, 1915. Serial No. 5,190.

To all whom it may concern:

Be it known that I, BAYARD E. TAYLOR, a citizen of the United States, and a resident of the town of Oak Park, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in a Lock-Adjuster for Windows, and I do hereby declare that the following is a full, clear and exact description of the same, reference being had to the accompanying drawings and to the numerals of reference marked thereon which form a part of this specification.

A great many types of actuating mechanisms and locking devices have been designed for use with windows wherein the sash is hingedly mounted in the casement, for the purpose of swinging the sash to an open or closed position. However, in such types of devices the mechanisms for the purpose are generally mounted upon the interior of the window and are thus more or less unsightly and at times may prove inconvenient when hangings are draped upon the window.

Consequently it is an object of this invention to construct an operating and locking device for a hinged type of window sash which is mounted on the exterior of the window and yet actuatable from within, so that no inconvenient mechanisms exist on the interior of the window, and no unsightly operating parts are visible from within.

It is an object of this invention to construct a device for adaptation to windows for operating the same to open and closed position, and more particularly for locking the same in an adjusted or closed position from the interior by simple actuation of a hand wheel for the purpose.

It is furthermore an important object of this invention to construct a bracing and locking mechanism for attachment to window casements having hinged sashes, which is attached on the exterior of the window and is operatable from within, the device when in locked position rigidly holding the sash in an adjusted or closed position and bracing the same rigidly in such position.

It is finally an object of this invention to construct simple mechanisms operatable from the interior of a window to lock the sash in adjusted or closed position, and when locked incapable of being adjusted from the exterior.

The invention (in a preferred form) is illustrated in the drawings and hereinafter more fully described.

In the drawings:

Figure 1 is a horizontal section taken through a window casement and sash illustrating a device embodying the principles of my invention attached thereto and with the operation shown in dotted lines.

Fig. 2 is a fragmentary exterior view of one corner of the casement and sash, illustrating the device attached thereon.

Fig. 3 is a detail section taken on line 3—3 of Fig. 2.

Fig. 4 is a detail section taken on line 4—4 of Fig. 2.

Fig. 5 is a section taken on line 5—5 of Fig. 2.

Fig. 6 is a section taken on line 6—6 of Fig. 3.

As shown in the drawings:

The window frame or casement is provided with side frame members 1 and 2, respectively, with outer stops 3, secured one on each of said frame members. Connected by means of a hinge 4, to said frame member 1, is a swinging window sash denoted as a whole by the reference numeral 5. Rigidly secured by means of countersunk rivets 6, to the surface of one of the outer stops 3, is a bracket 7, having a horizontal extension with an apertured boss 8, on the outer end thereof. A long rod 9, of circular cross section is bent substantially at a right angle, as indicated by the reference numeral 10, at one of its ends, and is extended through the aperture in said boss 8, and a pin or other projection 11, is formed upon or secured to said angled end 10, of the rod, and when inserted through said boss passes through a notch 12, provided therefor. Said pin, after the rod has been rotated in the boss a sufficient amount to bring the pin out of register with the notch, acts positively to retain the rod engaged therein. Said rod 9, extends through a telescoping clamping or locking mechanism which is secured upon the exterior of the lower rail of the sash 5, and is actuatable from the interior thereof. This mechanism comprises an outer casing 13, which is secured on the exterior surface of

the sash and projects into an aperture which extends therethrough, and threaded into said casing from the other side of said sash through said aperture is a long tubular member 14, which is flanged at its end to receive screws 15, therethrough by which the same may be rigidly attached to the sash on the inner surface thereof.

Slots or openings 16, are formed in the outer end of said casing 13, permitting said rod 9, to extend therethrough, and disposed in the outer end of said casing is a split sphere or ball member consisting of two hemispheres denoted respectively by the reference numerals 17 and 18, which may be thrust toward one another to clamp tightly upon said rod, and when released so as to permit said rod 9, to slide loosely therethrough, the lower hemisphere 17, seats upon the inturned portions 19, of the casing 13, at the lower end of said slots 16. In order to prevent said sectional sphere 17—18 from rotating about the rod 9, a small notch is formed in the top surface of the sphere section 18, and an indent 20, is stamped in the top wall of the casing 13, to engage loosely in said notch. In order to thrust said sphere sections 17 and 18, toward one another to clamp tightly upon the rod 9, a tubular member 21, is threaded into the interior of said member 14, and at its outer end is provided with a concave recess to permit the sphere section 17, to seat therein. Longitudinal movement of said member 21, is gained by rotating the same in said member 14, and for this purpose a long bolt 22, extends into the interior of said tubular member 21, said bolt having a squared end 23, which fits slidably within said tubular member 21, so that longitudinal movement of said bolt within said tubular member is permitted, but the two are constrained to rotate together. The end of said bolt 22, extends rotatably through the inner end of said member 14, and is pinned to a suitable actuating head or hand wheel 24, which affords a means of rotating said bolt in either direction.

The operation is as follows:

In order to adjust the window sash 5, the operator merely turns the head or hand wheel 24, in a direction to cause the tubular threaded member 21, to thread into the member 14, away from the sphere sections 17 and 18, thereby loosening the same and the rod 9, and permitting the rod 9, to slide easily therethrough. Said rod 9, may then be used as a lever in swinging the sash into any adjusted position desired, and the enlarged head 25, on the end thereof prevents the rod being pulled out of engagement with the clamping mechanism therefor should by accident the sash be swung into an extreme position. As clearly illustrated by the dotted lines in Fig. 1, the sash is adapted to swing inwardly, that is into the room instead of outwardly away from the casement, and the clamping or locking mechanism therefore is disposed on the exterior of the sash, although the same is actuatable from the interior. Practically all operations of adjusting the sash and locking the same in adjusted position are performed from the interior, although of course, when the mechanism is released, the sash may be operated by a person on the outside of the sash by actuating the rod 9, as for instance when cleaning the window. The device is equally well adapted to sashes swinging outwardly, as for instance the bracket 7, may then be mounted on the exterior of the casement in such a position as to permit clearance thereof by the sash when the same is opened. Due to the pin 11, which is rigid on the angled end 10, of the rod 9, said rod 9, cannot be sprung out of engagement with said bracket by a person endeavoring to seek entrance through the window from the exterior.

This device permits the window sash to be swung through any angle of practically ninety degrees, inasmuch as the respective members attached upon the sash and casement permit a certain degree of rotation of the slidable rod therein before the inner end of the sash and the rod 9, contact each other.

It is obvious that the device may be used interchangeably on a right or left hand opening window. I am aware that various details of construction may be varied through a wide range without departing from the principles of this invention, and I therefore do not purpose limiting the patent granted otherwise than necessitated by the prior art.

I claim as my invention:

1. In a device of the class described, the combination with a window frame and sash hinged therein, of means pivoted on the window frame, interfitting members mounted on said sash, and mechanisms adjustably mounted between said members for engaging said means to hold said sash in an adjusted position.

2. In a device of the class described, the combination with a window frame and sash hinged therein, of locking mechanism therefor comprising a bracket secured upon the window frame, a rod pivoted therein, clamping members on the sash having threaded engagement with one another adjustable for different thicknesses of sash, and means within said members engaged on said rod acting when released to permit said rod to slide and rotate through the locking mechanism to allow the sash to be adjusted.

3. In a device of the class described, the combination with a window frame and sash, of a rod pivotally mounted on one thereof, interfitting adjustable clamping mechanisms

secured on the other thereof through which said rod is adapted to slide, a ball member in one of said mechanisms engaging said rod, and movable means in the other of said mechanisms adapted to tighten the grip of said ball member on said rod to lock said sash from movement.

4. The combination with a window frame and sash, of an exterior bracket having a key shaped aperture therein mounted on said frame, a rod, means thereon adapted to be inserted through said aperture for pivotal association with said bracket, a clamp mounted in and extending through the sash and engaging said rod on the exterior of the sash, a split ball member within said clamp engaging around said rod, and mechanisms adapted to be operated from the interior of the sash to operate said clamp to clamp said split ball member around said rod and lock said sash in any position of adjustment.

5. In a device of the class described, the combination with a rod pivotally mounted on the exterior of a window frame, of clamping means secured on and through the sash and engaging said rod, said clamping means comprising sections engaging said rod, a tubular member threaded into said clamping means contacting said sections, and mechanism slidably engaged therein and operatable from the interior of the window adapted to clamp said sections on said rod to hold said sash in any position of adjustment.

6. In a device of the class described, the combination with a window frame and sash, of a bracket secured upon the window frame, a rod pivoted thereon, interfitting members mounted in the sash with said rod extending slidably therethrough, split means in one of said members engaging around said rod, a tubular member threaded into the other of said interfitting members, and mechanism slidably engaged in said tubular member to actuate the same to clamp said split means on said rod to hold the sash in any position of adjustment.

7. In a device of the class described, a bracket secured upon a window frame, a key shaped aperture in said bracket, a rod having an angled extension and projection thereon adapted to be inserted through said key shaped slot for pivotal association with said bracket, telescoping clamping mechanisms secured upon the sash of the window frame, and split means between said mechanisms for engaging said rod to clamp the same and lock said sash in any position of adjustment in the window frame.

8. In a device of the class described, the combination with a rod pivotally mounted on a window frame, of clamping mechanism therefor mounted on the sash comprising inner and outer members having threaded engagement with one another and adjustable for different thicknesses of sash, and clamping means associated therewith and operatable independently thereof to grip said rod at different points to hold the sash adjusted in the window frame.

In testimony whereof I have hereunto subscribed my name in the presence of two subscribing witnesses.

BAYARD E. TAYLOR.

Witnesses:
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