

No. 729,916.

PATENTED JUNE 2, 1903.

G. A. BELL.
SASH LOCK.

APPLICATION FILED DEC. 20, 1902.

NO MODEL.

Fig. 1.

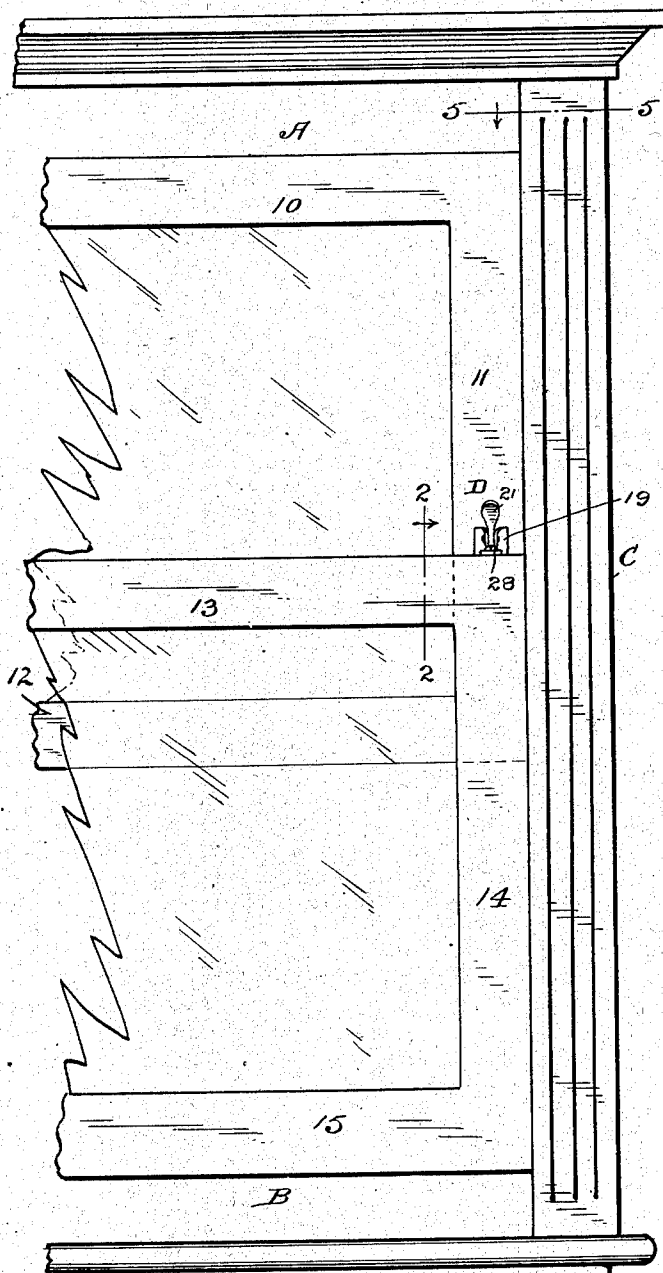


Fig. 2.

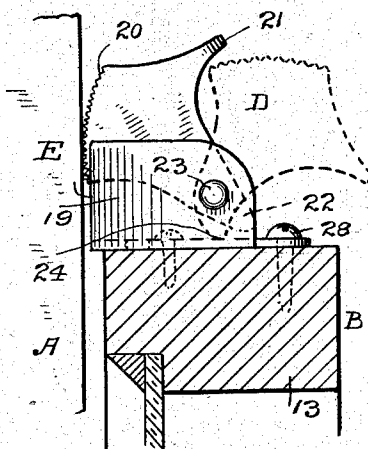


Fig. 3.

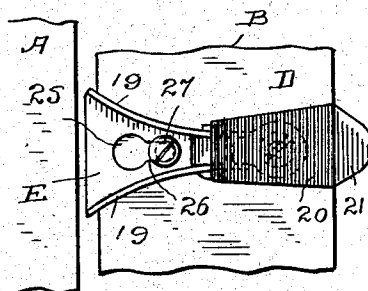
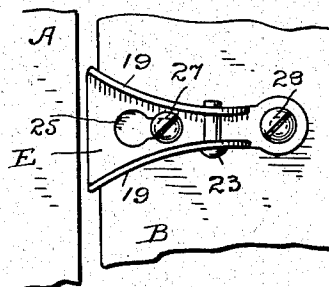


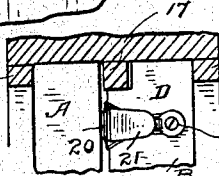
Fig. 4.



WITNESSES.

H. A. Lamb.
J. W. Atterton.

Fig. 5.



INVENTOR.

George A. Bell.

By A. M. Wooster
att.

UNITED STATES PATENT OFFICE.

GEORGE A. BELL, OF NORWALK, CONNECTICUT.

SASH-LOCK.

SPECIFICATION forming part of Letters Patent No. 729,916, dated June 2, 1903.

Application filed December 20, 1902. Serial No. 136,078. (No model.)

To all whom it may concern:

Be it known that I, GEORGE A. BELL, a citizen of the United States, residing at Norwalk, county of Fairfield, State of Connecticut, have invented a new and useful Sash-
 5 Lock, of which the following is a specification.

This invention relates to the class of sash-locks that are attached to the meeting-rails of lower sashes.

10 It is one of the objects of this invention to provide a sash-lock which shall be neat and attractive in appearance, simple in construction, and of little cost, which requires no cutting away or marring of the wood of either
 15 sash or casing, and which may be applied by any person who may be skilled or unskilled in the use of tools and without other tools than a screw-driver.

A further object of the invention is to provide a sash-lock comprising two pieces only and a pivot and which shall be so constructed that the locking-dog may be thrown and will remain wholly out of the way when it is not
 20 desired to lock the sashes.

25 A further object of the invention is to provide a sash-fastener which will lock both sashes simultaneously in any position in which they may be placed against movement in either direction by crowding the side rail
 30 of the upper sash against the outer bead and the side rail of the lower sash against the inner bead.

It is a further object of the invention to provide a sash-lock which shall be so constructed that the strength of the frictional
 35 engagement of the sashes with the beads shall be dependent upon the power exerted to move either sash toward the open position. That is to say, while either sash may be moved
 40 from the outside toward the closed position, the instant any attempt is made to move the upper sash downward or the lower sash upward the locking-dog will act to lock both
 45 sashes in position, and the greater the pressure exerted to move either sash the stronger will be the frictional engagement of the sashes with the outer and inner beads, respectively, so that in use it is practically impossible to open either sash without breaking
 50 the glass or other serious injury to the sashes or casing.

With these and other objects in view the

invention consists in certain constructions and in certain parts, improvements, and combinations which will be hereinafter described
 55 and then specifically pointed out in the claims hereunto appended.

In the accompanying drawings, forming part of this specification, Figure 1 is an elevation showing the application of my novel
 60 sash-lock to the meeting-rail of a lower sash and indicating the manner in which both sashes may be locked in a partially-open position; Fig. 2, an enlarged detail sectional view on the line 2 2 in Fig. 1, the locking-dog
 65 being shown in full lines in the locking position and in dotted lines in the retracted position; Fig. 3, a plan view, corresponding with Fig. 2, showing the locking-dog in the retracted position; Fig. 4, a view corresponding
 70 with Fig. 3, except that the locking-dog is removed, showing the manner in which the attaching-plate is secured to the meeting-rail; and Fig. 5 is a detail cross-section of the casing on the line 5 5 in Fig. 1, showing the
 75 two sashes in plan and the manner in which they are locked by being crowded against the outer and inner beads, respectively.

A denotes the upper sash; B, the lower sash, and C the casing. For convenience I will
 80 indicate the upper rail of the upper sash by 10, the side rail of the upper sash by 11, the meeting-rail of the upper sash by 12, the meeting-rail of the lower sash by 13, the side rail of the lower sash by 14, the lower rail of
 85 the lower sash by 15, the outer bead by 16, the parting-bead by 17, and the inner bead by 18.

My novel sash-lock comprises two parts only, to wit: A locking-dog D and an attaching-plate E, to which it is pivoted. I have
 90 shown the attaching-plate as provided with side plates 19 and the locking-dog as provided with a curved engaging face 20, which may or may not be serrated; a finger-piece 21,
 95 and a shank 22, which is pivoted between the side plates, as at 23. The lower end of the shank is so shaped as to form a stop 24, (see dotted lines, Fig. 2,) which engages the attaching-plate when the locking-dog is thrown
 100 to the retracted position to retain it in convenient position to be thrown into use, but securely out of operative position until it is intentionally thrown into use. It will of

course be obvious that the special shape or configuration of both locking-dog and attaching-plate are unimportant so far as the principle of the invention is concerned, it being simply essential that the point of engagement of face 20 with the side rail of the upper sash when in the extreme locking position shall be slightly above a horizontal line drawn through the pivotal point of the locking-dog to the side plates, so that when pressure is exerted either to force the upper sash downward or the lower sash upward the locking-dog will act on the principle of a toggle and will force the side rail of the upper sash against the outer bead and the side rail of the lower sash against the inner bead with great pressure, increasing with the power applied to move the sash, so that, in fact, movement of either sash toward the open position is made practically impossible.

In order to provide a convenient mode of adjusting the sash-lock when attaching it to the meeting-rail so that it will assume the correct binding position, I provide the attaching-plate with a hole 25, having a rearwardly-extending slot 26. A screw 27, having a head smaller than hole 25, is turned partly down into the meeting-rail of the lower sash. The sash-lock is then placed in position, the head of screw 27 passing through hole 25 in the attaching-plate. The sash-lock is then moved forward, the shank of screw 27 passing into the slot until face 20 of the locking-dog when in the extreme locking position will be slightly above a horizontal line drawn through pivot 23, as clearly shown in Fig. 2. Screw 27 is then turned down, the head of the screw engaging the top of the attaching-plate on opposite sides of the slot and holding said plate in place, where it is permanently secured by a screw 28, passing through a hole in the rear end thereof.

As is well known, the amount of play which two sashes may have relatively to each other varies in different windows according to the thickness of the parting-bead 17 and the closeness of setting of the beads 16 and 18 relatively to the sashes. By the construction of attaching-plate as just described the locking-dog may first be temporarily adjusted so that the proper angle for the bind or lock may be obtained, and then it may be permanently secured. That is, the attaching-plate may be first set well forward and then the locking-dog turned against the upper sash and one sash moved relatively to the other until it is found that the dog binds, when it is in a position but slightly above the horizontal line drawn through the pivot 23. The attaching-plate when only temporarily adjusted is suffi-

ciently free to slip or be forced backward until the locking-dog assumes the position just described. Then the screw 27 is turned down tight and the screw 28 inserted to secure the device permanently in the properly-adjusted position.

The operation of this sash-lock will be readily understood from the drawings and is so perfectly simple as not to require explanation. It is of course wholly immaterial so far as the operativeness is concerned whether one sash is partly open and the other closed or whether both are closed or both partly open. To lock both sashes instantly in any position in which they may be placed, the locking-dog is simply thrown from the position shown in dotted lines in Fig. 2 to the position shown in full lines in said figure. No other movement is required nor any pressure or setting of any part of the device. When the locking-dog is in the locking position, either sash may be moved toward the closed position from either side; but any attempt made to move either sash toward the open position locks them both tightly and the greater the power exerted to move them the more securely will they be locked in place. When the locking-dog is thrown to the retracted position, as in Fig. 2, both sashes may be moved up or down freely without hindrance by the locking-dog, which will remain out of locking position by gravity until thrown into the locking position, in which position it will remain until thrown out again.

Having thus described my invention, I claim—

1. A sash-lock comprising an attaching-plate, and a locking-dog pivoted thereto, means for temporarily adjusting the locking-plate while permitting it to be forced to change its position, and means for permanently securing the attaching-plate after securing the adjustment.

2. A sash-lock comprising a locking-dog and an attaching-plate to which the locking-dog is pivoted, said attaching-plate having a hole through which the head of a screw may pass and a rearwardly-extending slot adapted to receive the shank of a screw but not the head so that the plate may be temporarily adjusted, and an additional screw for permanently holding the attaching-plate when adjusted.

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

GEORGE A. BELL.

Witnesses:

A. M. WOOSTER,
S. W. ATHERTON.