I. G. FRENCH.

SASH FASTENER.

APPLICATION FILED APR. 19, 1910.

**1,009,497.** **Patented Nov. 21, 1911.**

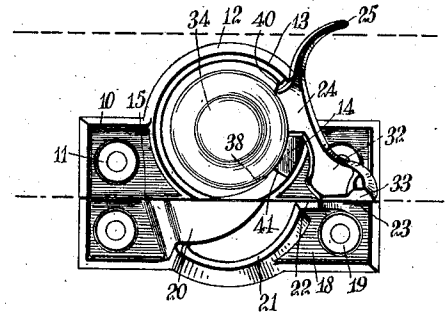


Fig. 1.

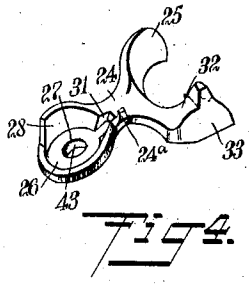


Fig. 4.

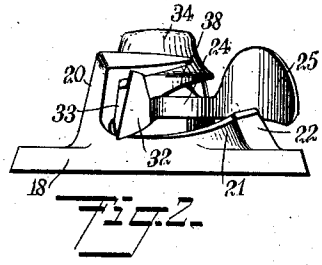


Fig. 2.

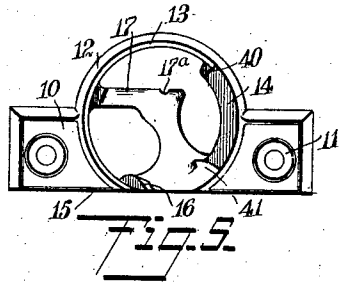


Fig. 5.

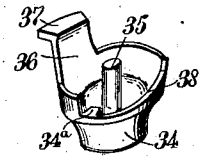


Fig. 6.

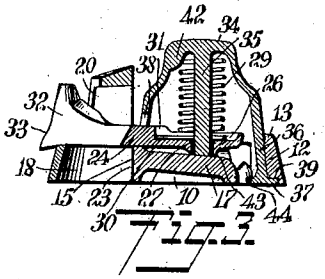


Fig. 3.

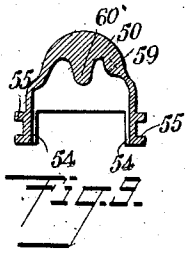


Fig. 9.

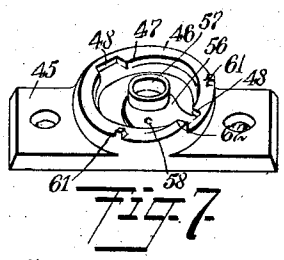


Fig. 7.

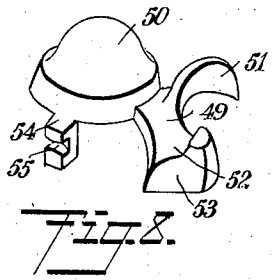


Fig. 8.

WITNESSES:

C. Ben. Joffé

John K. Buelhorgel

INVENTOR

Ira G. French

BY Munn & Co.

ATTORNEYS

# UNITED STATES PATENT OFFICE.

IRA GATES FRENCH, OF ORANGE, MASSACHUSETTS.

## SASH-FASTENER.

1,009,497. Specification of Letters Patent. Patented Nov. 21, 1911.

Application filed April 19, 1910. Serial No. 556,291.

*To all whom it may concern:*

Be it known that I, IRA G. FRENCH, a citizen of the United States, and a resident of Orange, in the county of Franklin and State of Massachusetts, have invented a new and Improved Sash-Fastener, of which the following is a full, clear, and exact description.

This invention relates to sash fasteners for locking windows and the like, and has reference more particularly to a sash fastener comprising a locking member mounted upon one sash, to swing and to rock, a keeper mounted upon the other sash, and adapted to be engaged by the locking member, and a spring tending normally to force the locking member toward the keeper, so that the member can rock into operative engagement therewith.

The object of the invention is to provide a simple, strong and durable sash fastener, which can be manufactured inexpensively from any suitable material, such as cast metal, which can be manipulated without difficulty, by means of which the window sashes can be securely locked against accidental or unauthorized opening, and which automatically locks when the window is closed.

The invention consists in the construction and combination of parts to be more fully described hereinafter and particularly set forth in the claims.

Reference is to be had to the accompanying drawings forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views, and in which—

Figure 1 is a plan view of an embodiment of my invention; Fig. 2 is a front elevation of the fastener, showing the same closed; Fig. 3 is a transverse section of the device; Fig. 4 is a perspective view of the locking member; Fig. 5 is a plan view of a part of the fastener which is secured upon one of the sashes; Fig. 6 is an inverted perspective view of a part of the device by means of which the locking member is pivotally mounted; Fig. 7 is a perspective view, showing part of a modified form of my invention; Fig. 8 is a perspective view of a locking member of modified form; and Fig. 9 is a transverse section of part of the modified form.

Before proceeding to a more detailed explanation of my invention, it should be clearly understood that the fastener is practically automatic in operation, that is, after the locking member is manually retracted to permit the sashes to be opened, it is held against the tension of its controlling spring, in a retracted position, until the sashes are moved into their closed positions. The engagement of the one sash with the locking member releases it from its retracted position, and permits it to rock and swing into operative engagement with the keeper. The rocking movement permits the locking member to rock over a shoulder of the keeper and then to swing into the recess of the keeper. The shoulder serves to release the locking member from its retracted position. Certain of the details of construction form no part of the invention, and can be varied in accordance with individual preference and special conditions, without departing from the underlying spirit of the invention.

Referring more particularly to the drawings, I provide a body or plate 10, adapted to be mounted upon the upper rim of one of the window sashes, and having openings 11 adapted to receive screws or the like for securing the body in place. It has an annular part 12 extended rearwardly from an edge thereof, and having a rim 13 cut away and inwardly disposed at one side to form a circular bearing surface 14 for a purpose to appear hereinafter. The edge 15 of the body, opposite the rearward extension of the part 12, is straight and substantially flush with the outer edge of the window sash. Adjacent to the edge 15 and near one terminal of the rim 13, is an upward projection 16. The member is cut away within the rim 13, and has extending across it an angularly disposed bearing rib 17, a portion of which is substantially central with respect to the annular extension, for a purpose to appear hereinafter.

I employ a plate or body 18 having openings 19 adapted to receive securing screws, by means of which it can be fastened upon the lower portion of the other window sash. It has an upwardly and laterally disposed finger 20 forming a keeper, and has a curved, inclined rib 21 forming a stop shoulder 22 at the edge 23 of the body, adjacent to the edge 15 of the member 10 when the parts are in juxtaposition.

I employ a locking member 24 having a suitably formed thumb-piece 25, by means of which it can be manipulated, and a circular pivot portion 26 having an opening

27 therethrough. The part 26 is recessed and has a curved wall 28 which forms a socket for a preferably helical spring 29. The spring 29 has one end 30 secured in a suitable holding recess 31 of the locking member. The latter has an extension forming a head 32, the end face 33 of which is inclined. A hood or guard 34 of substantially circular cross section, and of any suitable ornamental form, has an inner, concentric pivot 35, and a foot 36 provided with a laterally disposed end flange 37. The hood has a part 38 of the rim cut away, and is normally arranged with the end of the pivot 35 seating upon the bearing rib 17. The foot 36, when the parts are assembled, is introduced through one of the openings of the extension 12 and seats in a recess 39 formed at the lower edge of the extension 12. Part of the rim of the guard terminates between the rim 13 and the extension 16. The member 24 is mounted to swing and rock under the guard, and receives the pivot 35 in the opening 27. The member rests upon the bearing rib 17 and the surface 14. Its movement is limited by the rear end 40 of the surface 14, and a stop 41 at the other end of the surface 14 formed by a projection of the member 10. The upper end of the spring 29 engages a projection 42 within the hood. The arrangement is such that the spring tends normally to swing the locking member toward the keeper, so that it can rock over the shoulder 22 into engagement with the keeper. The locking member at the under side about the opening 27, has a hub projection 43 which permits it to rock to a certain extent, depending upon the height of the cut away part 38 of the guard. To secure the guard in place, a small wedge 44 is driven in between the inner edge of the flange 37 and the bearing rib 17, as is indicated in Fig. 3, the rib having a recess 17ª for the reception of the wedge.

In Figs. 7, 8 and 9, I have shown a modified form of the sash fastener, in which I employ a plate or member 45 having an annular extension 46 provided with an inwardly disposed flange 47 having cutaway parts 48. The locking member 49 has a hood or guard 50 integral therewith, and is provided with a thumb-piece 51, and a head 52, having an inclined end face 53. The hood has at opposite sides, downward extensions 54 which have in the outer faces, transverse recesses 55. The member 45 has an extension 56 within the annular part 46, provided with a spring support 57. The spring has one end held in an opening 58 of the extension 56, and has the other end engaging a projection 59 within the hood. The latter has a central stub 60 which serves to center the spring.

The extensions 54 are introduced through the cutaway parts 48 so that the rim 47 movably receives the recesses 55 of the extension. Projections 61 serve to limit the movement of the locking member. A shoulder 62 is provided adjacent to the outer edge of the member 45 and corresponds to the shoulder 41 of the preferred form of the sash fastener. The recesses are so proportioned that the locking member can rock to a certain extent, as well as swing, so that its operation is analogous to that of the locking member 24.

When the sash fastener is in an operative position, to lock the window, the head of the locking member engages in the recess under the extension of the finger 20 of the keeper. When it is desired to open the window, the locking member is retracted by means of the thumb-piece or grip 25. The head of the locking member rides along the rib 21 of the keeper, out of engagement therewith. As soon as the parts of the fastener are separated by the opening of the window, and when the locking member is released, the same tends to swing into its original, operative position. The engagement of the locking member however, with the shoulder 41, limits this movement and the locking member is held in position against the shoulder. When the sashes are closed, the inner edge of the keeper member and the sash which carries it, engage at the inclined face of the head of the locking member, and displace this from engagement with the shoulder 41, moving it toward the end 40 of the surface 14. When the parts of the fastener reach their normal positions, the spring becomes operative to rock the locking member over the shoulder 22 of the keeper, as well as the shoulder 41, it forces the locking member toward the keeper and causes it to ride along the rib 21, into its operative locking position, as is shown in Fig. 2.

The operation of the modified form of my invention is similar to that just described, the keeper employed being the same as that shown in the preferred form.

The guard 34 at the inside, adjacent to one end of the cutaway part 38, has an inward projection 34ª. This is adapted to cooperate with a stop 24ª of the locking member 24. When the bolt is retracted as far as possible, and is given an upward movement, the stop 24ª will engage the projection 34ª so that the locking member will be held in its retracted position and cannot then automatically close when the window is closed. This construction is for the purpose of temporarily preventing the automatic operation of the sash fastener should it be so desired.

Having thus described my invention, I claim as new, and desire to secure by Letters Patent:

1. A sash fastener, comprising a plate

adapted to be secured to one sash, a locking member movably supported upon said plate, a guard associated with said plate and serving to mount said locking member movably in position, and to limit the movement thereof, a stop for normally holding said locking member in an inoperative position, a keeper adapted to be mounted upon another sash and to be engaged by said locking member to lock the sashes together, and a spring engaging said guard and said member, and tending normally to force said locking member into locking engagement with said keeper, said locking member being mounted to rock over said stop when said keeper is brought into engagement with said locking member to displace it from said stop.

2. A sash fastener comprising a plate adapted to be mounted upon a sash and having an annular extension provided with a bearing near the middle thereof, a locking member having a part movably engaging said bearing, said locking member being provided with a grip, and a head projecting beyond said extension, a cap-shaped guard having a pivot for mounting said locking member to swing, and engaging said bearing, a spring engaging said locking member and said guard, and a keeper adapted to be mounted upon another sash, and adapted to receive the head of said locking member, said guard having a part cut away to permit a limited movement of said locking member, said plate having a stop for holding said locking member in a retracted, partly projected position, said keeper having means for displacing said locking member from its partly projected position, said spring tending to force said locking member normally toward said keeper.

3. A sash fastener, comprising a plate adapted to be mounted upon a sash, a single movable locking member pivotally carried by said plate and having a thumb-piece and a head, said locking member being mounted to rock and to swing, said plate having a stop for holding said locking member in a normally partly projected position, a spring tending to swing said locking member in one direction, a guard over said locking member and said spring and serving to mount said member pivotally, and a keeper adapted to be mounted upon another sash and having a part adapted to receive said head of said locking member, whereby said sashes can be locked, said keeper having an inclined rib terminating in a shoulder adjacent to said plate, when the parts are in juxtaposition, said plate having a bearing surface for said locking member, and having means for limiting the movement thereof.

4. A sash fastener, comprising a plate adapted to be mounted upon a sash and having an annular extension provided with a bearing near the middle thereof, a single movable locking member having a part movably engaging said bearing, and provided with a grip and a head projecting beyond said extension, a guard having a pivot for mounting said locking member to swing and engaging said bearing, a spring engaging said locking member and said guard, and a keeper adapted to be mounted upon another sash, and having a laterally disposed finger adapted to receive the head of said locking member thereunder, said plate having a stop for holding said locking member in a retracted, partly projected position, said keeper having a shoulder for displacing said locking member from its partly projected position when said keeper is moved into juxtaposition with said plate, said spring tending to force said locking member normally toward said keeper to permit it to rock over said shoulder when said locking member is displaced from its partly projected position.

5. A sash fastener, comprising a plate adapted to be mounted upon a sash and having a bearing, a single movable member constituting the locking member and having a part positioned upon said bearing and provided with an opening, said locking member having a grip and a head, a guard mounted upon said plate and having a pivot extending through said opening of said member and seating upon said bearing, a spring engaging said locking member and said guard, and a keeper adapted to be mounted upon said sash, and having a laterally disposed finger adapted to receive the head of said locking member thereunder, said guard having a part cut away to permit said grip and said head of said locking member to project beyond it, said plate having a stop for holding said locking member in a retracted, partly projected position, said locking member having a hub engaging said bearing, whereby said locking member is mounted to swing and to rock under the pressure of said spring, said keeper having a shoulder for displacing said locking member from its partly projected position when said keeper is moved into juxtaposition with said plate, said spring tending to force said locking member normally toward said keeper.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

IRA GATES FRENCH.

Witnesses:
SARAH W. FOWLER,
JOSEPHINE F. HALEY.