

No. 878,697.

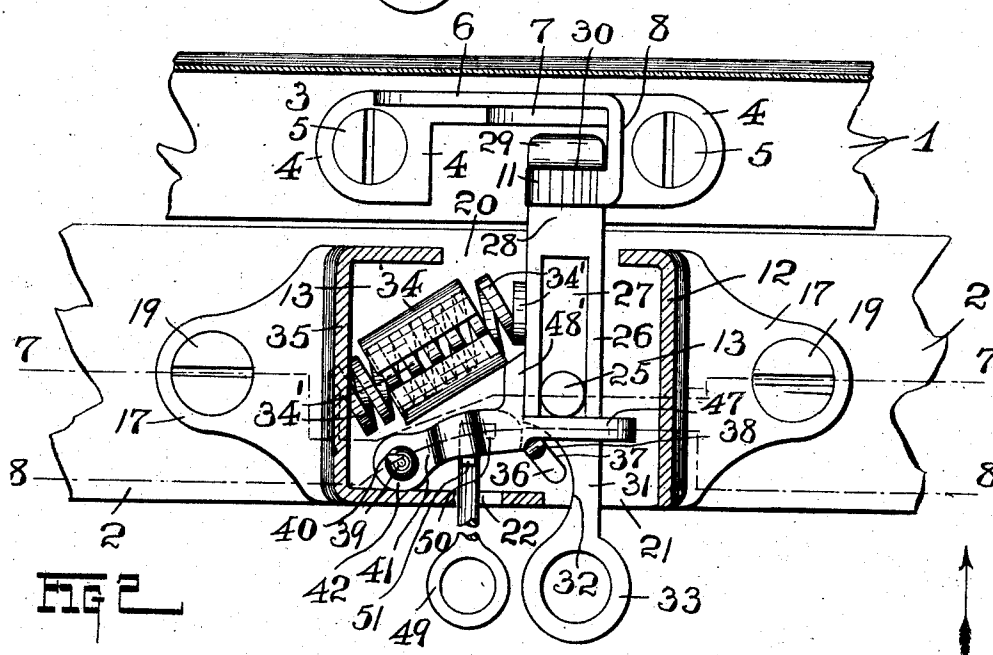
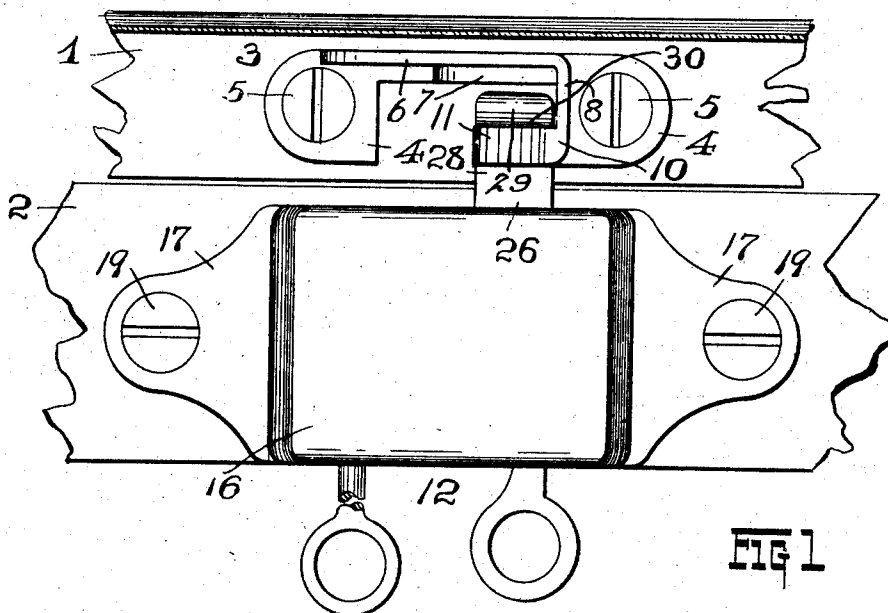
PATENTED FEB. 11, 1908.

L. V. WEEL,

SASH LOCK OR WINDOW FASTENER.

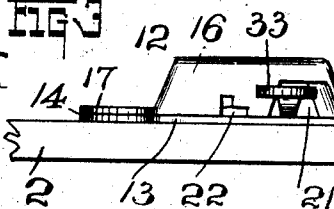
APPLICATION FILED APR. 4, 1907.

3 SHEETS—SHEET 1.



WITNESSES:  
*Frederick Jamison*  
*F. B. W. Krausfel*

FIG 3



INVENTOR:  
**Leonard Vander Weel**  
 BY *Graetz and Richard*  
 ATTORNEYS.

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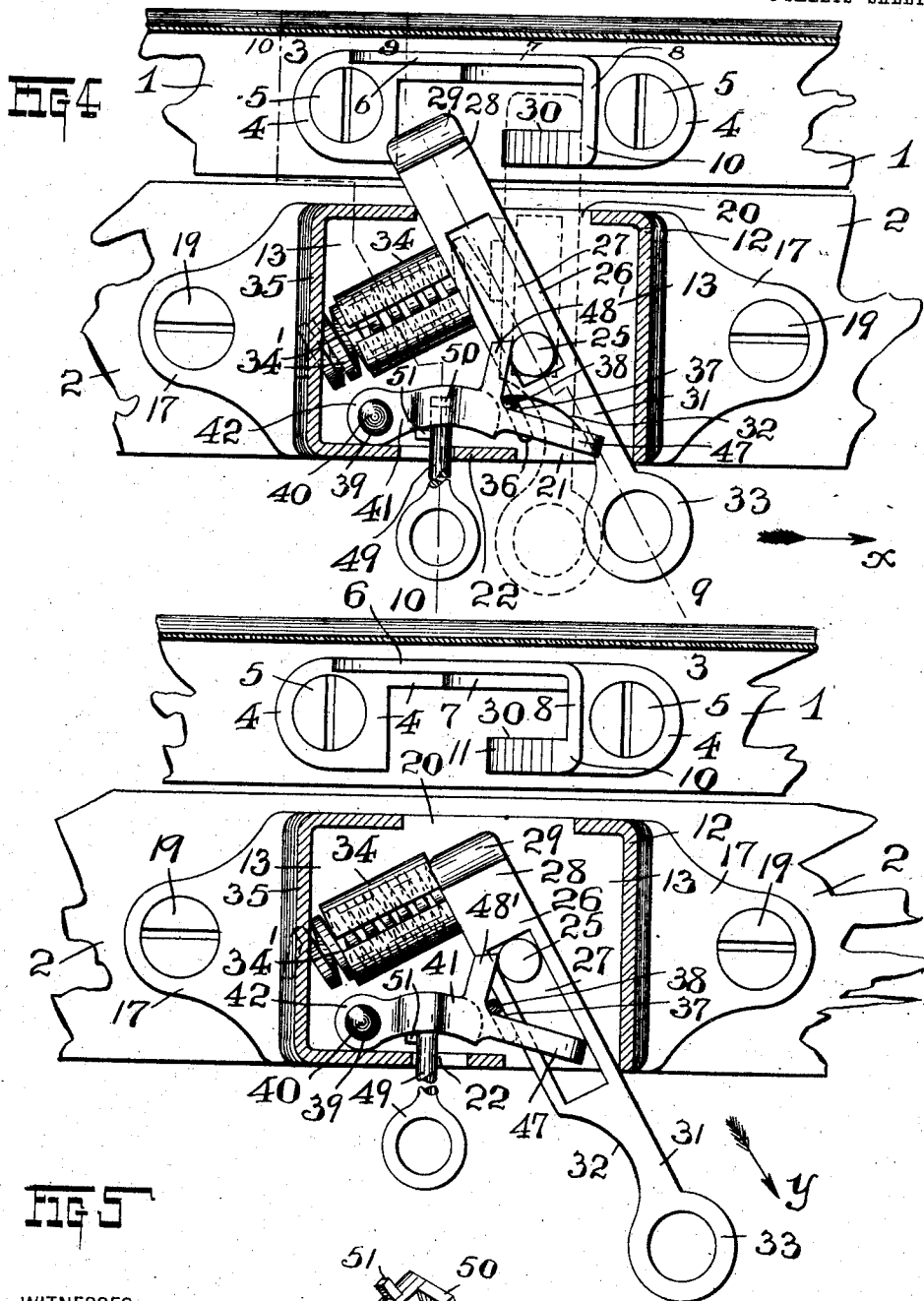


FIG 5

WITNESSES:

*Frederick Johnson*  
*H. W. Fraentzel*

INVENTOR:

*Leonard VanderWeel*

BY

*Fraentzel and Richards,*  
ATTORNEYS

FIG 6

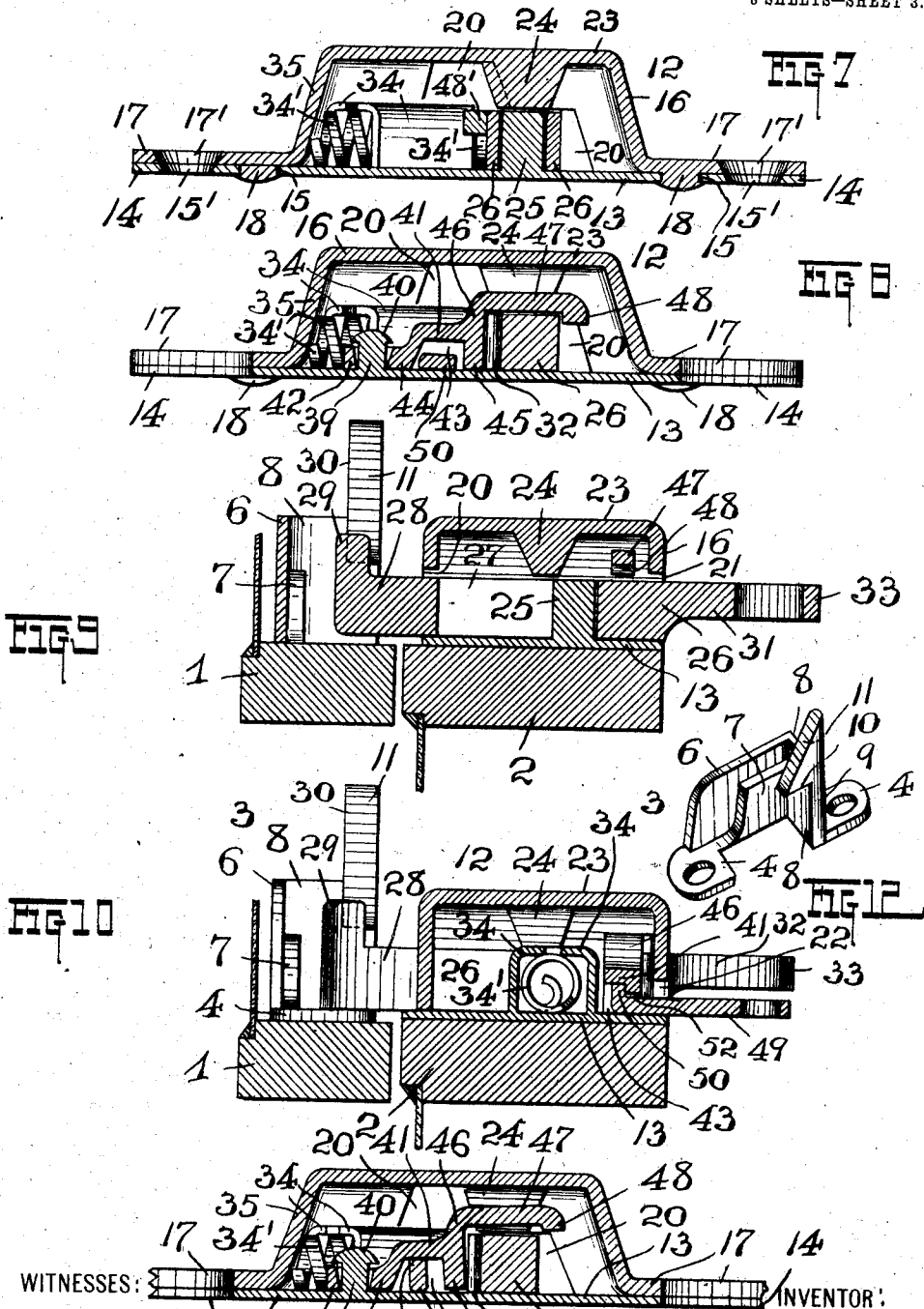
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3 SHEETS—SHEET 3.



Frederick Jamison  
F. H. M. Braentzel

FIG 11

Leonard Vander Weel

BY  
Braentzel and Richards  
ATTORNEYS

# UNITED STATES PATENT OFFICE.

LEONARD VANDER WEEL, OF JERSEY CITY, NEW JERSEY.

## SASH-LOCK OR WINDOW-FASTENER.

No. 878,697.

Specification of Letters Patent.

Patented Feb. 11, 1908.

Application filed April 4, 1907. Serial No. 366,337.

*To all whom it may concern:*

Be it known that I, LEONARD VANDER WEEL, a citizen of the United States, residing at Jersey City, in the county of Hudson and State of New Jersey, have invented certain new and useful Improvements in Sash-Locks or Window-Fasteners; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to characters of reference marked thereon, which form a part of this specification.

This invention has reference to improvements in window or sash-fasteners; and, the present invention relates, more particularly, to a novel construction of sash or window fastener or catch which is very simple in its construction and the parts of which can be easily and quickly secured in their operative positions upon the respective meeting rails of the lower and upper window-sashes.

My present invention has for its principal object to provide a sash-lock which is designed to provide an effective sash or window-fastening which can not be operated from the outside, by the insertion of a knife-blade, or other similar tool, in the space formed between the two meeting-rails of the upper and lower sashes of the window.

A further object of this invention is to provide a novel, simple and operative construction of sash-lock or window-fastener in which the various parts are readily adjusted and in which the locking-lever or arm, while in its operative position ready for engagement with a holding or retaining post or lug, has an oscillatory or pivotal movement, is also capable of a slidable movement whereby the locking lever or arm can be withdrawn out of the path of said post or lug, during the movements of the window-sashes, so that the parts of the sash-lock or fastener will not lock and will not interfere with the raising and lowering movements of the window-sashes, until the locking-lever or arm is again forced in an inward direction into the sash-lock casing and once more brought into its oscillatory or pivotal relation.

A further object of this invention is to provide a sash-lock or fastener of the general character hereinafter set forth which is provided with a key-actuated device or means adapted by means of a key to be brought into

a positively locked engagement with the holding or locking lever or arm, when said lever or arm has been brought into holding or retaining engagement with the retaining post or lug, to prevent the oscillation or pivotal movement of the locking lever or arm until the latter is again brought into its unlocked and operative relation by means of the key.

Other objects of this invention not at this time more particularly enumerated will be understood from the following detailed description of the present invention.

The invention consists, primarily, in the novel sash-lock or window-fastener herein-after set forth; and, furthermore, this invention consists in the various arrangements and combinations of the devices and parts, as well as in the details of the construction of the same, all of which will be hereinafter more fully described and then finally embodied in the clauses of the claims which are appended to and which form an essential part of this specification.

The invention is illustrated in the accompanying drawings, in which:—

Figure 1 is a plan view of portions of the meeting-rails of the window-sashes, and my novel construction of sash-lock or fastener secured thereto, said view illustrating the locked and engaged position of the parts; and Fig. 2 is a similar representation of the same parts, except that the casing or shell of the sash-lock or fastener is represented in horizontal section, and said view showing the general arrangement of the interiorly disposed parts in their locked and immovable positions, both said Figs. 1 and 2 being made on an enlarged scale. Fig. 3 is a front elevation or side view of the sash-lock or fastener, showing more particularly the finger-portion of the holding or retaining arm or lever extending from the front of the casing, and showing also a key-hole in said front, said view being made on a reduced scale. Fig. 4 is a view, similar to the view represented in said Fig. 2, said view showing the retaining or locking lever or arm in its relation when it is free to be moved back and forth upon a pivot-post, the lever or arm being represented in its actuated position, when pushed in the direction of the arrow *x* by the operator, showing the holding end of the lever or arm disengaged from the holding or retaining post or lug, for the purposes of moving either or both window-sashes, said

view showing, also, in dotted outline, the normal initial position of the lever or arm when the pressure has been released therefrom, and when its holding end is in its retaining or holding engagement with said holding or retaining lug or post. Fig. 5 is a similar view of the same parts, said view, however, showing the retaining or locking lever or arm moved into its outwardly withdrawn position, in which said lever or arm is held so as not to interfere with the upward and downward movements of the window-sashes. Fig. 6 is a perspective view of a key which may be used with the sash-lock or window-fastener. Fig. 7 is a vertical section, taken on line 7—7 in said Fig. 2, and Fig. 8 is a similar section, taken on line 8—8 in said Fig. 2. Fig. 9 is a transverse sectional representation, taken on line 9—9 in said Fig. 4; and Fig. 10 is a similar section, taken on line 10—10 in said Fig. 4. Fig. 11 is a section, similar to Fig. 8 of the drawings, showing a pivoted holding dog in its raised position, prior to being brought into the position indicated in Fig. 2 of the drawings, for locking the retaining lever or arm in its immovable position. Fig. 12 is a perspective view of the holding or retaining post or lug.

Similar characters of reference are employed in all of the above described views, to indicate corresponding parts.

Referring now to the several figures of the drawings, the reference-character 1 indicates the meeting-rail of the upper window-sash, and 2 represents the meeting rail of the lower window-sash.

The reference-character 3 indicates the retaining or holding catch or keeper, which consists essentially of a base or plate 4 provided at its respective ends with holes or openings for the reception of screws 5 by means of which the base or plate 4 is secured in its proper position upon said meeting-rail 1. Extending upwardly from the rear edge of said base or plate is a wall 6, preferably provided with an enlarged or thickened portion 7, said wall being formed with a laterally extending part 8, which terminates preferably at the front edge of said base or plate 4. The said part 8 is provided with an upwardly extending post or element 9 which is made with a holding or engaging portion 10 and has an angularly shaped edge-portion 11 which pitches from the point or free end of the post or element 9, downwardly and outwardly to the end of the engaging or holding portion 10, substantially as shown more particularly in Fig. 12 of the drawings.

The reference-character 12 indicates the sash-lock or fastener, and the same comprises a suitable base or plate 13 provided with perforated end-portions 14, said base or plate being also preferably provided with lug-receiving holes or openings 15. A suitable casing or shell 16, which is provided at

its respective ends with ears 17 formed with holes or openings 17' which register with the holes or openings 15' in the end-portions 14, is placed upon the said base or plate 13, and permanently secured thereon by means of projections or lugs 18 which extend from the under sides of the ears 17 and are inserted in the lug-receiving holes or openings 15. The free ends of said projections or lugs 18 are then upset or rivet over, whereby the casing or shell 16 is permanently secured upon said base or plate 13, as will be clearly understood. When thus secured together, screws 19 are passed through the other registering holes or openings 17' and 15' in the ears 17 and end-portions 14 for securing these connected parts in their proper positions upon the meeting-rail 2.

The shell or casing is provided in its rear face with an opening 20, and in its front face with an opening 21, a key-hole 22, preferably of the configuration shown in Fig. 3 of the drawings, being also provided in the front face of the shell or casing. Connected with and extending downwardly from the inner face of the upper portion 23 of the casing or shell 16 is a projection 24, the purpose of which will be presently more fully described.

From an inspection of the several figures of the drawings, it will be seen, that the said base or plate 13 is provided with an upwardly extending post or pivot 25, and 26 is a retaining lever or arm, which is formed with an elongated opening 27 arranged over said post or pivot 25, substantially in the manner shown. The rearward end-portion 28 of said lever or arm extends through the opening 20 of the shell or casing 16, and has an upwardly extending projection or element 29 which is adapted to be brought in frictional holding engagement with the rear face 30 of the angular engaging or holding portion 10, substantially as illustrated in Figs. 1 and 2 of the drawings. The said lever or arm has a narrow end-portion 31 upon its other end, said end-portion having a concave edge-portion 32 and extends from the opening 21 in the front face of the shell or casing, said end-portion 31 being made with a suitably formed finger-piece 33.

A suitable guide or retainer 34 is arranged upon the said base or plate 12, in which is operatively held a coiled spring 34', said spring being suitably compressed and having its respective end-portions arranged in holding contact between the faces of the one wall 35 of the shell or casing and the side of the lever or arm 26, as clearly illustrated. The said base or plate 13 is also provided with an upwardly extending rib or projection 36, formed with a flat side or face 37, and having upon its upper edge, at one end thereof, a suitably chamfered holding teat or projection 38. The said base or plate 13 is furthermore provided with an upwardly ex-

tending pivot-post 39 formed with an enlargement or head 40, and pivotally and loosely arranged upon said post 39 is an eye- or ring-shaped end-portion 42 of a locking 5 or holding dog or pawl 41. In its under surface the dog or pawl is made with a cham-bered portion 43, formed by the parts 44 and 45, substantially as shown in Figs. 8 and 11, said dog or pawl being provided with an up-10 wardly extending member 46 with which is connected a laterally extending arm or finger 47 formed at its free end with a slightly downwardly projecting holding lip or pro-jection 48, said parts extending over and 15 above the lever or arm 26, and under certain conditions being adapted to be brought in holding or locked engagement with said arm or lever 26.

When the various parts of the sash-lock 20 or window fastener are in their relative positions indicated in Figs. 4, 9 and 10 of the drawings, the arm or finger 47 of the holding dog or pawl rests upon the upper edge of the rib or projection 36 and against the cham-25 fered teat or projection 38; and then a rearwardly extending arm or finger 48' is raised a sufficient distance above the upper surface of the lever or arm 26, and the part 45 is suffi-30 ciently removed from the side of said lever or arm 26, that the oscillatory or pivotal move-ments of the arm or lever 26 are not interfered with. Thus, by pressing against the finger-35 piece 33 in the direction of the arrow  $x$  in Fig. 4 of the drawings, the lever or arm 26 swings upon the pivot or post 25, whereby the up-wardly extending projection or element 29 is removed from its holding engagement with the angular engaging or holding portion 10 of the catch upon said meeting-rail 1, and 40 the respective window-sashes can be raised or lowered, as will be evident. Upon the removal of the pressure from the fingerpiece of said lever or arm 26, the coils of the com-pressed spring returns said lever or arm to 45 its normal initial position, indicated in the dotted outline in said Fig. 4, and when the window sashes are again brought into their closed relation, the end-portion 28 of the lever or arm 26 rides down over the inclined 50 edge of the holding portion 10 of the catch, thereby slightly compressing the spring, which immediately forces the retaining or holding portion 29 of the lever or arm 26 once more in holding or locked engagement 55 with the portion 10, as soon as the end-portion 28 of the lever or arm 26 has cleared the lowest point of the inclined edge of said hold-ing portion 10.

From an inspection of Fig. 5 of the draw-60 ings, it will be seen, that the lever or arm 26, when the holding dog or pawl is in the position shown in said figure, is capable of a slid-ing movement, to entirely remove the end-portion 28 and its projection or element 29 65 entirely away from engagement with the

holding lug, post or catch upon the meeting-70 rail 1. This is accomplished by withdrawing the lever or arm 26 outwardly in the direction of the arrow  $y$  in Fig. 5, to the position shown, so that the elongated opening 27 of the lever or arm 26 will now have the po-75 sition shown in said Fig. 5, with relation to the post 25. In this position the lever or arm 26 will be retained, until again pushed inwardly to the position shown in Fig. 4, and 80 is incapable of any pivotal or oscillating movement, because the slightly compressed spring, when in the position shown in Fig. 5, causes a binding or holding engagement be-85 tween the flat side of the body of the lever or arm 26 and the flat face or side 37 of the rib or projection 36, as will be clearly under-stood from an inspection of said Fig. 5. Thus it will be evident, that the window-85 sashes can be raised and lowered without the necessity of operating the window-fastener or sash-lock, which is of advantage when washing or cleaning the window.

When the retaining or holding dog or 90 pawl, and the various parts of the sash-lock or window-fastener are in the positions in-dicated in Figs. 2, 7 and 8 of the drawings, then the retaining or locking lever or arm 26 is positively held against any possible move-95 ment, whereby its holding end-portion might become disengaged from the holding lug, post or catch 3, by the engagement of the side or edge of the rearwardly extending 100 finger or arm 48 of the slightly lowered hold-ing dog or pawl having been brought into a positive binding and holding engagement with the side of the lever or arm 26, and 105 the insertion of a thin blade or tool between the two meeting-rails 1 and 2, and forced sidewise against the lever or arm 26, will be of no avail to produce a pivotal or oscillatory movement of said lever or arm 26, as will be fully understood from an inspec-110 tion of said Fig. 2 of the drawings.

When it is desired to unlock the parts, so 110 as to be able to produce the pivotal or os-cillatory relation of the lever or arm 26 to remaining parts of the sash-lock or window-fastener, a key 49, see Fig. 6, may be em-115 ployed for slightly raising the pivoted hold-ing dog or pawl 41 from its locking position indicated in said Fig. 2 to its inoperative or disengaged relation to the lever or arm 26, shown in Fig. 4 of the drawings. To accom-120 plish this movement, the key 49 is provided at its inner free end with a lifting tongue or lug 50, and extending from the side of the key, at a point back of said tongue or lug 50, and in a plane substantially at right angles 125 to the plane of said tongue or lug 50, is another tongue or lug 51 which acts as a stop, substantially as and for the purposes to be presently more fully described.

The tongued end-portion of the key is passed 130 through the key-hole 22, until its tongue or

lug 50 passes beneath an opening 52 in the lower front portion 53 of the dog or pawl 41, see Fig. 11, and the tongue or lug 51 is brought in engagement with the side of the dog or pawl 41, as clearly shown in Fig. 2 of the drawings, which acts as a stop and properly locates the tongue or lug 50 in the chamber between the parts 44 and 45 of the holding dog or pawl.

10 A quarter-turn of key now brings the two tongues or lugs 50 and 51 in the relative positions shown in Fig. 4 of the drawings, thereby slightly raising or lifting the dog or pawl 41, so that its extension or finger 48' is removed from its holding engagement with the side of the lever or arm 26. By means of a slight pull upon the key in a forward direction, toward the front wall of the shell or casing 16, the lug or tongue 50 engages the inner face of the front portion 53 of the dog or pawl 41, whereby the latter is drawn from the holding or locking position, indicated in Fig. 2 of the drawings, to its raised and in-operated relation shown in said Figs. 4 and 5, thereby releasing the lever or arm 26, so that it is free to oscillate, as represented in said Fig. 4, for the purposes hereinabove described, or for drawing said lever or arm 26 into the fixed position indicated in said Fig. 5.

By a return quarter movement of the key, the latter may be withdrawn from the sash-lock or window-fastener, or it may be permitted to remain within the casing or shell 16 without interfering with the operative movements of the lever or arm 26, the said lever or arm being supported upon the upper edge of the rib or projection 36, and being prevented from being accidentally displaced therefrom by the chamfered holding teat or projection 38, as will be clearly evident. By simply pushing the key again in an inward direction, when the lever or arm 26 is in the dotted position indicated in Fig. 4 of the drawings, the finger 47 of the holding dog or pawl 41 rides upon and over the chamfered teat or projection 38, the holding dog or pawl dropping back into the position shown in said Fig. 2 of the drawings, and the mechanism of the sash-lock or window-fastener is once more held in its positively locked relation.

From the foregoing description of the present invention it will be seen that I have produced a simply constructed and efficient sash-lock or window-fastener which is operative for all the purposes for which it is intended and cannot be tampered with from the outside of the window, when the parts are

ing from one of said openings, and a finger-piece portion extending from the other opening, all combined with a keeper, a guide in said main shell, said guide being open at both ends, and a normally compressed spring retained in said guide, said spring having its ends projecting from the open ends of the guide, and one end in contact with said lever for forcing the same in holding engagement with said keeper.

2. A sash-lock or window-fastener comprising a main shell provided with openings in its opposite sides, a pivoted locking lever in said shell having a holding portion extending from one of said openings, and a finger-piece portion extending from the other opening, combined with a keeper with which the holding portion of said lever is adapted to be brought in holding engagement, said lever being capable also of a sliding movement toward the front face of the shell, whereby the holding end-portion of the lever is drawn into the main shell, a guide in said main shell, said guide being open at both ends, and a normally compressed spring retained in said guide, said spring having its ends projecting from the open ends of the guide, and one end in contact with said lever for forcing the holding end-portion of the lever in engagement with said keeper when said lever is in its normal initial position.

3. A sash-lock or window-fastener comprising a main shell provided with openings in its opposite sides, a pivoted locking lever in said shell having a holding portion extending from one of said openings, and a finger-piece portion extending from the other opening, combined with a keeper with which the holding portion of said lever is adapted to be brought in holding engagement, said lever being capable also of a sliding movement toward the front face of the shell, whereby the holding end-portion of the lever is drawn into the main shell, and means in said shell to prevent oscillation of said locking lever, consisting of a pivoted holding dog, a laterally extending finger projecting over said locking lever, a downwardly extending lug upon the free end of said finger, and a rib in said shell for the support thereon of said finger.

4. A sash-lock or window-fastener comprising a main shell provided with openings in its opposite sides, a pivoted locking lever in said shell having a holding portion extending from one of said openings, and a finger-piece portion extending from the other opening, combined with a keeper with which the

sisting of a pivoted holding dog, a laterally extending finger projecting over said locking lever, a downwardly extending lug upon the free end of said finger, and a rib in said shell for the support thereon of said finger, and a spring in said shell, said spring having one end in contact with said lever for forcing the holding end-portion of the lever in engagement with the holding catch when said lever is in its normal initial position.

5. A sash-lock or window-fastener comprising a base-plate, a main shell thereon, means for securing said shell upon said base-plate, said main shell being provided with openings in its opposite sides, an upwardly extending post on said base-plate, a locking lever in said shell, said lever being formed with an elongated opening by means of which said lever is pivotally mounted upon said post, said lever having a holding portion extending from one of the said openings in said shell, and a finger-piece portion extending from the other opening in said shell, combined with a keeper with which the holding portion of said lever is adapted to be brought in holding engagement, said lever being capable also of a sliding movement upon said post, toward the front face of the shell, whereby the holding end-portion of the lever is drawn into the main shell, means in said shell to prevent oscillation of said locking lever, consisting of a pivoted holding dog, a laterally extending finger projecting over said locking lever, a downwardly extending lug upon the free end of said finger, and a rib in said shell for the support thereon of said finger, and a spring in said shell, said spring having one end in contact with said lever forcing the holding end-portion of the lever in engagement with the holding catch when said lever is in its normal initial position.

6. A sash-lock or window-fastener comprising a main shell a locking lever therein, a keeper with which a portion of said locking lever can be brought into holding engagement, and a key-controlled and pivotally arranged holding dog adapted to be brought in engagement with said lever to lock the same against movement, said holding dog having a chambered part into which the tongued portion of the key is inserted, a rearwardly extending retaining finger, adapted to be brought in retaining engagement with the side of the locking lever, a laterally extending finger projecting over said locking lever, a downwardly extending lug upon the free end of said laterally extending finger, and a rib in said shell for the support thereon of said laterally extending finger, substantially as and for the purposes set forth.

7. A sash-lock or window-fastener comprising a main shell, a base-plate upon which said shell is secured, an upwardly extending post on said base-plate, a locking lever in said shell, said lever being formed with an elongated opening by means of which said lever is pivotally as well as slidably mounted upon said post, a keeper with which a portion of said locking lever can be brought in holding engagement, and a key-controlled means adapted to be brought in engagement with said lever to lock the same against movement, substantially as and for the purposes set forth.

8. A sash-lock or window-fastener comprising a main shell, a base-plate upon which said shell is secured, an upwardly extending post on said base-plate, a locking lever in said shell, said lever being formed with an elongated opening by means of which said lever is pivotally as well as slidably mounted upon said post, a keeper with which a portion of said locking lever can be brought in holding engagement, and a key-controlled and pivotally arranged holding dog adapted to be brought in engagement with said lever to lock the same against movement, substantially as and for the purposes set forth.

9. A sash-lock or window-fastener comprising a main shell, a base-plate upon which said shell is secured, an upwardly extending post on said base-plate, a locking lever in said shell, said lever being formed with an elongated opening by means of which said lever is pivotally as well as slidably mounted upon said post, a keeper with which a portion of said locking lever can be brought in holding engagement, and a key-controlled and pivotally arranged holding dog adapted to be brought in engagement with said lever to lock the same against movement, said holding dog having a chambered part into which the tongued portion of the key is inserted, a rearwardly extending retaining finger, adapted to be brought in retaining engagement with the side of the locking lever, a laterally extending finger projecting over said locking lever, a downwardly extending lug upon the free end of said laterally extending finger, and a rib in said shell for the support thereon of said laterally extending finger, substantially as and for the purposes set forth.

In testimony, that I claim the invention set forth above I have hereunto set my hand this 30th day of March, 1907.

LEONARD VANDER WEEL.

Witnesses:

FREDK. C. FRAENTZEL,  
CHARLES MONTANGE.