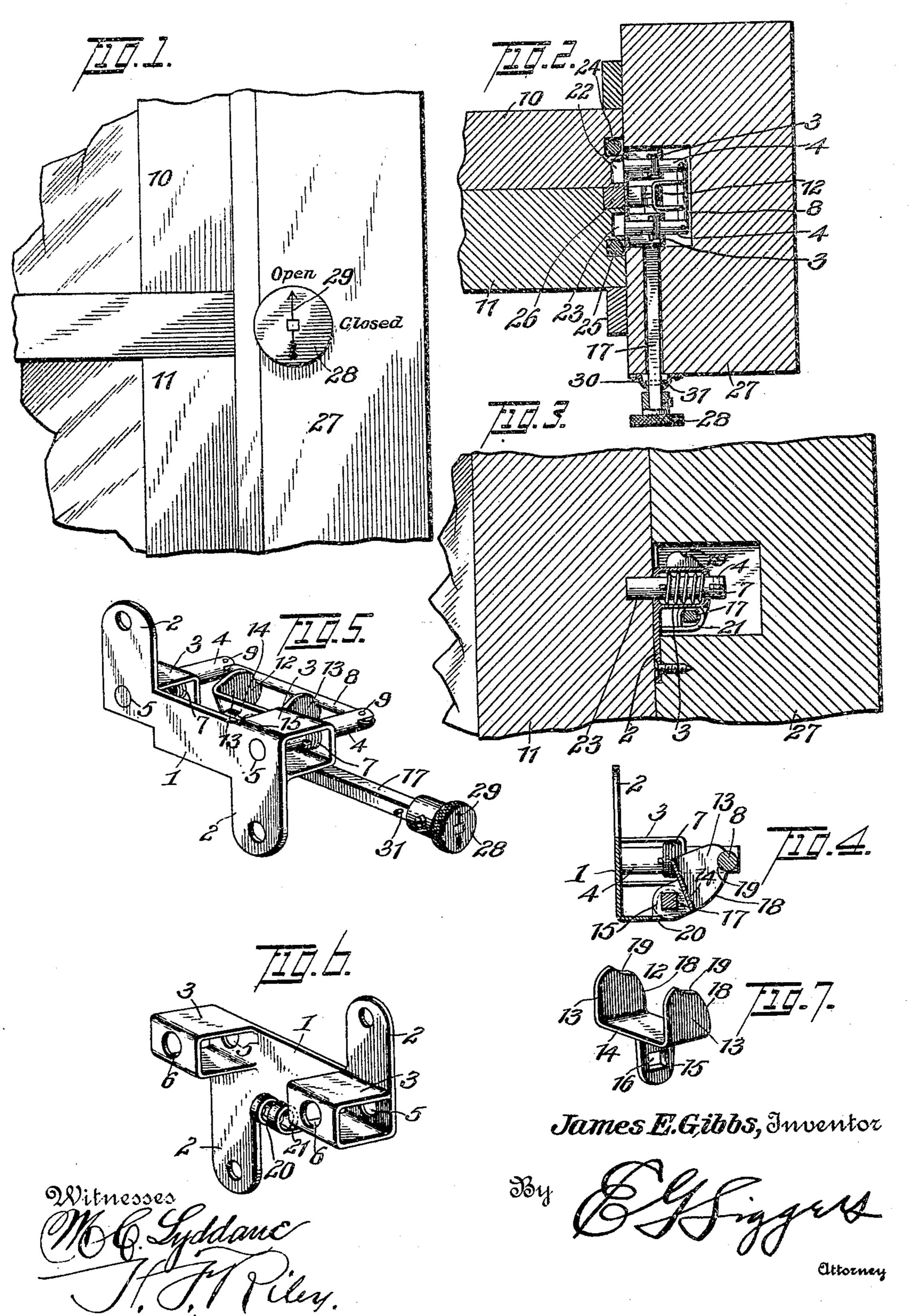
J. E. GIBBS. SASH FASTENER. APPLICATION FILED MAR. 17, 1905.



UNITED STATES PATENT OFFICE.

JAMES EDWIN GIBBS, OF CINCINNATI, OHIO, ASSIGNOR OF ONE-HALF TO HATTIE A. GIBBS, OF CINCINNATI, OHIO.

SASH-FASTENER.

No. 801,075.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, James Edwin Gibbs, a citizen of the United States, residing at Cincinnati, in the county of Hamilton and State of Ohio, have invented a new and useful Sash-Fastener, of which the following is a specification.

The invention relates to improvements in sash-fasteners.

The object of the present invention is to improve the construction of sash-fasteners and to provide a simple, inexpensive, and efficient device of great strength and durability adapted to be readily applied to windows without interfering with the sash weights and cords or other balancing means and capable of locking the upper and lower sashes of a window in their closed position and at various adjustments.

A further object of the invention is to provide a sash-fastener of this character having its locking mechanism concealed within the casing and adapted to be set for automatic locking and capable of enabling the sashes of a window to be opened slightly at both the top and bottom and of automatically locking the same against movement in either direction should an attempt be made to open either of the sashes.

Also the invention has for its object to provide a locking mechanism having independently-movable sash-engaging bolts, so that when the device is set for automatic locking either of the bolts will be reciprocatable for locking the sashes should an attempt be made to open either of the same.

With these and other objects in view the invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended.

In the drawings, Figure 1 is an elevation of a portion of a window provided with a sash45 fastener constructed in accordance with this invention. Fig. 2 is a horizontal sectional view. Fig. 3 is a vertical sectional view. Fig. 4 is a transverse sectional view of the sash-fastener, the same being detached. Fig. 5° 5 is a perspective view of the same. Fig. 6 is a detail perspective view of the supporting-frame. Fig. 7 is a similar view of the cam. Like numerals of reference designate cor-

responding parts in all the figures of the drawings.

1 designates a supporting-frame constructed of a single piece of sheet metal or other suitable material and consisting of a plate provided with arms or extensions 2 and having casings or housings 3 for the reception of 60 sash-engaging bolts 4. The arms or extensions are perforated for the reception of screws or other suitable fastening devices for securing the device to a window-frame. The casings or housings 3, which are located at 65 the ends of the frame or plate, are formed integral with the same by bending lateral extensions into a rectangular form, as clearly illustrated in Figs. 5 and 6 of the drawings. The blank from which the frame is constructed 70 consists, essentially, of a plate or piece provided at each end with laterally-disposed arms or extensions arranged in pairs. The ends of the material forming the casings or housings may be soldered, brazed, or otherwise 75 secured to the plate or frame. The casings or housings are provided with opposite guideopenings 5 and 6 for the reception of the bolts 4, which when free to move are actuated by coiled springs 7, disposed on the bolts and 80 engaging the same and the ends of the housings or casings. The rear ends of the bolts are bifurcated to receive the terminals of a connecting-piece 8, which is secured to the rear ends of the bolts by means of pivots 9, con-85 sisting of pins or rivets or other suitable fastening devices. This pivotal connection will permit the bolts to reciprocate independently of each other, as hereinafter explained, so that when the sash-fastener is set for automatic 90 locking either the upper sash 10 or the lower sash 11 of a window will be engaged and locked should it be moved a sufficient distance in either direction.

The bolts are retracted by means of a cam 95 12, composed of two sides 13 and a connecting transverse portion 14, having a projecting stem or shank 15, located at an intermediate point. The stem or shank 15, which is provided with an opening 16 of rectangular 100 form or other polygonal shape, is engaged by the inner end of an operating shaft or spindle 17, which is partially rotated to rock the cam. The sides 13, which are located adjacent to the bolts to enable them to be freely 105 operated and to prevent the same from bind-

ing, have curved edges 18 arranged to engage the connecting-piece 8, and at the outer terminals of the curved edges 18 are arranged seats or recesses 19, adapted to receive the 5 connecting-piece, which is retained in engagement with the seats or recesses by the coiled springs of the bolts 4. The cam is adapted to be readily swung out of engagement with the connecting-piece by rotating the operating 10 shaftor member 17. The shank 15 of the cam is arranged in a bifurcation 20 of a projection or bearing 21, formed integral with the plate of the supporting-frame and consisting of an extension or piece bifurcated at its outer por-15 tion, the sides of the bifurcation being coiled or bent to form bearing-eyes for the reception of the operating shaft or member 17. The operating shaft or member 17 is adapted to be introduced in the eyes or openings of 20 the bearing from either side, so that the device can be readily reversed and arranged to operate at either side of a window or in any position in which a window may be placed.

When the bolts are retracted, as illustrated 25 in Figs. 4 and 5 of the drawings, the upper and lower sashes are permitted to slide freely. These sashes are provided at their edges with recesses or sockets 22 and 23, arranged at suitable intervals and located at points between 30 the sash-cords 24 and 25 and the parting-strip 26. Any number of the recesses or sockets may be employed, and when the bolts are retracted the sashes may be opened to provide the desired ventilation. Should the sockets 35 or recesses not coincide with the bolts when the sashes are in such position, the cam may be disengaged from the connecting-piece to permit the bolts to automatically engage the sockets or recesses when the same are brought 40 opposite them. Should an attempt be made to move either sash up or down, it will be locked as soon as one of the sockets or recesses is brought opposite the corresponding bolt.

Any attempt to open a window when the 45 sashes and the sash-fastener are arranged as described will be effectually prevented.

The locking mechanism is entirely concealed within the window frame or casing 27, and the operating shaft or member 17 is provided 50 at its outer end with a knob or head 28, designed to be provided with an indicating-arrow 29, and the words "Open" and "Closed" are designed to be suitably placed on a window frame or casing, as indicated in Fig. 1 of 55 the drawings, so that a person may tell at a glance whether the sashes are locked or unlocked. The outer portion of the operating shaft or member is supported by a plate 30, suitably secured to the window frame or cas-60 ing and provided with an outwardly-extending portion having an opening of a size to permit the shaft or member to rotate freely. The shaft or member is provided with a pin or projection 31, located within the project-65 ing portion of the plate 30 and arranged to

engage the same to retain the shaft or member in position. Instead of employing a knob or head, as shown in the accompanying drawings, any other suitable operating means may be provided for rotating the operating shaft 7° or member.

It will be seen that the sash-fastener is exceedingly simple and inexpensive in construction, that it possesses great strength and durability, and that the locking mechanism is 75 wholly concealed within a window frame or casing. It will also be clear that it is adapted to lock the upper and lower sashes of a window in their closed position and at various adjustments and that it may be set for auto-80 matic locking to prevent either sash from being surreptitiously opened. Furthermore, it will be apparent that the bolts are adapted to be simultaneously reciprocated by means of the cam which retracts them and the springs 85 which throw the bolts into their engaging position and that owing to the pivotal connection between the ends of the bar or connecting-piece 8 and the rear ends of the bolts the latter are also capable of independent opera- 9° tion, so that when the device is set for automatic locking either bolt may move independently of the other. Furthermore, it will be seen that the operating mechanism is reversible and may be introduced into the bifurcated 95 bearing from either side and that the interlocking of the inner end of the operating shaft or member with the shank of the cam retains the latter in position.

Having thus fully described my invention, 100 what I claim as new, and desire to secure by Letters Patent, is—

1. A sash-fastener, comprising a pair of spring-actuated bolts for engaging the upper and lower sashes of a window, a connecting- 105 piece movably connected with each of the bolts to permit an independent reciprocation of the same, and means engaging the connectingpiece between the bolts for actuating the bolts simultaneously.

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2. A sash-fastener, comprising a pair of spring-actuated bolts for engaging the upper and lower sashes of a window, a connectingpiece movably connected with each of the bolts to permit an independent reciprocation of the 115 same, and means located between the bolts and engaging the connecting-piece at opposite sides of the center thereof for actuating the said bolts simultaneously.

3. A sash-fastener, comprising a pair of 120 bolts for engaging the upper and lower sections of a window, a connecting-piece, and a cam arranged to engage the connecting-piece and provided with a terminal recess forming a seat for the connecting-piece, whereby both 125 bolts are locked against movement.

4. A sash-fastener, comprising a pair of bolts for engaging the upper and lower sections of a window, a connecting-piece for the bolts, a cam provided with opposite sides and 130 having a connecting portion, the sides being arranged to engage the connecting-piece adjacent to the bolts, and means connected with the transverse portion for operating the cam.

5 5. A sash-fastener, comprising a pair of bolts for engaging the upper and lower sections of a window, a connecting-piece for the bolts, a cam having opposite sides for engaging the connecting-piece and provided with a transverse portion having a shank, and an operating member connected with the shank for oscillating the cam.

6. A sash-fastener, comprising a plate having opposite casings or housings, reciprocating bolts operating in the housings or casings, springs located within the latter and engaging the bolts, a connecting-piece for the latter a cam mounted on the plate between the casings or housings for engaging the connecting-piece, and an operating-shaft connected with the

7. A sash-fastener, comprising a plate having opposite housings, reciprocatable bolts operating therein, springs located within the casings or housings, means for connecting the bolts, a cam located between the casings and arranged to engage the said connecting means for operating the bolts, and a reversible operating-shaft.

30 8. A sash-fastener, provided at an intermediate point with a bifurcated bearing, recipro-

catable bolts mounted on the plate, means for connecting the bolts, an actuating-cam arranged to engage the said means and having a projecting portion located in the bifurcated 35 bearing, and a reversible operating-shaft detachably interlocked with the projecting portion of the cam and adapted to extend into the bearing from either side thereof.

9. A sash-fastener, comprising a frame consisting of a plate provided with lateral extensions arranged in pairs, one member of each pair forming an attachment-arm, and the other member being bent over the plate to form the casing or housing, bolts operating in the casings or housings, and means on said frame for actuating the bolts.

10. A sash-fastener, comprising a pair of spring-actuated bolts, connecting means pivotally connected with the bolts to permit the 5° same to move independently of each other, and operating mechanism detachably engaging the connecting means at a point between the bolts for simultaneously operating the same.

In testimony that I claim the foregoing as 55 my own I have hereto affixed my signature in the presence of two witnesses.

JAMES EDWIN GIBBS.

Witnesses:

JOHN H. SIGGERS, E. G. SIGGERS.