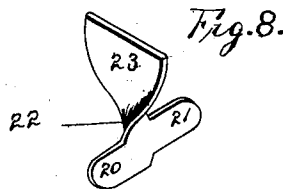
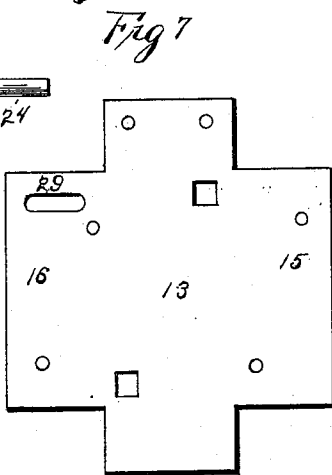
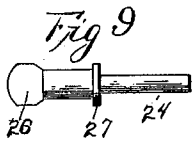
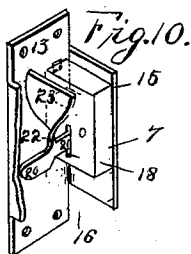
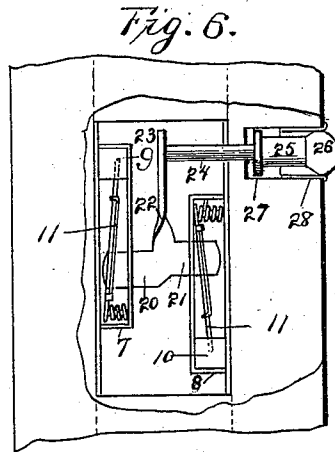
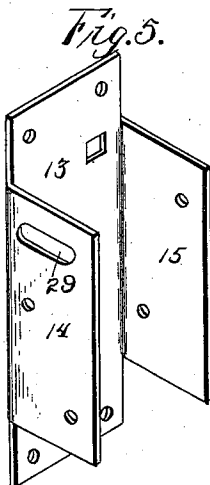
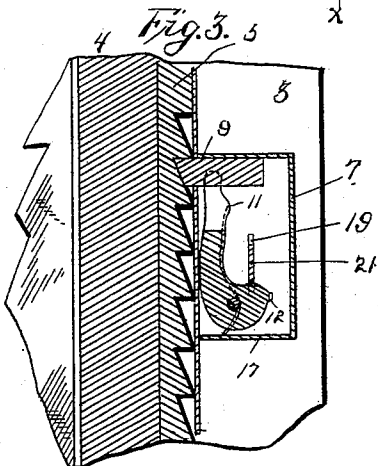
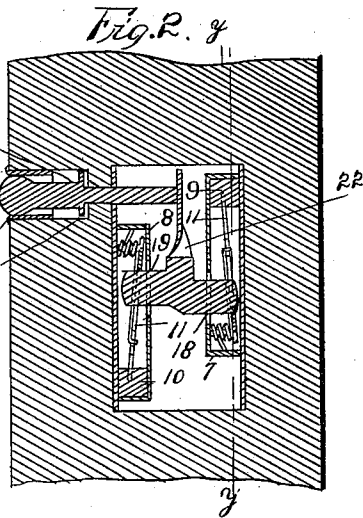
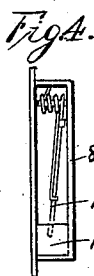
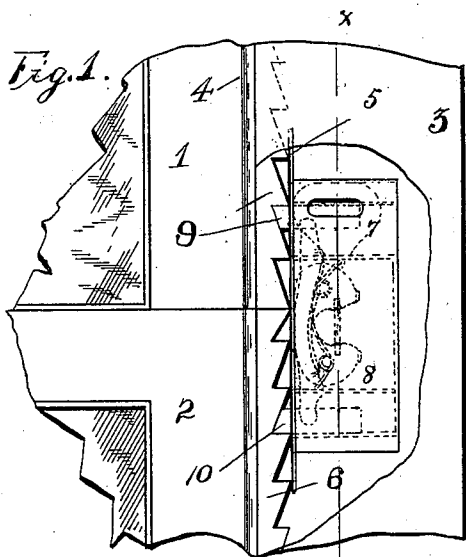


(No Model)

D. A. CRICHTON.
SASH FASTENER.

No. 583,845.

Patented June 1, 1897.



Witnesses
F. Q. Barry
C. L. Barry.

Inventor.
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UNITED STATES PATENT OFFICE.

DAVID ARTHUR CRICHTON, OF LOS ANGELES, CALIFORNIA, ASSIGNOR TO
FLORENCE MAY CRICHTON, OF SAME PLACE.

SASH-FASTENER.

SPECIFICATION forming part of Letters Patent No. 583,845, dated June 1, 1897.

Application filed September 30, 1896. Serial No. 607,377. (No model.)

To all whom it may concern:

Be it known that I, DAVID ARTHUR CRICHTON, a subject of the Queen of Great Britain and Ireland, and a resident of the city of Los Angeles, in the county of Los Angeles and State of California, have invented certain new and useful Improvements in Sash-Fasteners; and I do hereby declare that the following is a full, clear, and exact description thereof, which 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 the numerals of reference marked thereon, which form part of this specification.

My invention relates to means for fastening the sliding sashes of windows, sliding doors, or other analogous devices.

The object of the invention is to provide an improved sash-fastener which shall be cheap, simple, durable, and effective, and in which the locks for both upper and lower sashes are simultaneously operated by the same key.

With this object in view my invention consists in the improved construction, arrangement, and combination of parts hereinafter more fully described, and afterward specifically pointed out in the claims.

In the accompanying drawings, Figure 1 is an inside elevation of a portion of a window and casing with a portion of the woodwork broken away to illustrate the application of my improved fastener. Fig. 2 is a sectional view through both locks on the line *x x* of Fig. 1. Fig. 3 is a sectional view through one of the locks on the line *y y* of Fig. 2. Fig. 4 is an elevation of one of the locks, the edge plate being removed. Fig. 5 is a detail perspective view showing the supporting-plate, which also forms one side of each lock-frame. Fig. 6 is a detail view in elevation of the edge of both the locks, the inclosing plate and woodwork being broken away. Fig. 7 is a detail view of the blank from which plate shown in Fig. 5 is made. Fig. 8 is a detail view of the key-bar for withdrawing the bolts of both locks simultaneously, and Fig. 9 is a detail view of the push-bar for operating the key-bar. Fig. 10 is a view similar to Fig. 5, showing also one of the locks and the key-bar, part of the plate being broken away.

Like numerals of reference mark the same parts in all the figures.

Referring to the drawings by numerals, 1 is the upper sash, and 2 the lower sash, which are of ordinary construction and are fitted to slide in the casing 3 in the usual manner, being kept apart by the usual parting-heads 4, as shown in Fig. 1. The upper sash 1 is provided on one edge with a saw-toothed rack 5, and on the corresponding side the lower sash is provided with a similar rack 6, the teeth of the rack 5 pointing downward and those of the other rack pointing upward. Each rack is engaged by the sliding bolt of a separate lock, the lock for rack 5 being marked 7 and that for rack 6 being marked 8, the respective bolts being marked 9 and 10. The front ends of these bolts are beveled off to correspond with the inclination of the teeth which they engage and they are normally kept in contact with the racks by spring-impelled bell-crank levers, (marked 11.) The ends of the short arms of these bell-crank levers are bent over, forming lips 12 to bear against the frame to prevent too great surface-bearing and consequent binding in motion.

The locks 7 and 8 have their frames made as follows: A plate 13 has turned-up edges 14 and 15, which form the outside of the two locks, and the balance of the frame is made each of one bent piece of metal (marked 16 and 17) secured to the plate 13 and its turned-up sides, so that the two locks are firmly held in position parallel to each other and a short distance apart. In the inner sides 16 and 17 of the locks are straight vertical slots 18 and 19, through which project the two ends 20 and 21 of a T-shaped key-bar 22, which engage the short arms of the bell-crank levers 11 and 12 on opposite sides in directions opposite to the action of the springs which operate these levers. The stem 23 of this key-bar 22 is twisted, so as to bring it to a position parallel to the sides of the lock-frames and at right angles to the ends 20 and 21. This key-bar is not otherwise held in position, no other securing means being necessary, and it is operated to withdraw the bolts from the racks by the pressure of a push-bar 24, which is mounted in a hole through the window-frame, passing through a slot 29 in

the supporting-plate and being returned to its position after operation by the outward pressure of the key-bar. By the pressure of this bar 24 on the key-bar both bolts are simultaneously withdrawn and will be held in such withdrawn position as long as the bar 24 is pressed inward, leaving the sashes free to be pushed up or down, respectively, but as soon as the pressure is removed the bell-crank levers will be operated by their springs, causing the bolts to be withdrawn from engagement with the racks, and by pressing the key-bar against the push-rod causing it to be pressed outward to its normal position.

In the operation of this push-bar I have found that it will sometimes stick in the casing, owing to the hole in the casing being bored at an improper angle or the swelling of the wood when the hole is made for the bar to fit close therein. To obviate this, I make the push-bar as shown in detail in Fig. 9, where it will be seen that it is formed with an increased thickness at 25, a knob 26 at the end, and an annular projecting flange at 27, and bore the hole through the casing somewhat larger in diameter than the largest part of the pin. In this hole I place a bushing 28, whose inner diameter is slightly less than that of the flange 27, so that when the push-bar is placed in position from the inside the flange will prevent it from being misplaced, and by reason of the play allowed in the hole and bushing there will be no liability whatever to the pin sticking, it being free to move under all circumstances.

While I have described herein the best means known to me for carrying out my invention, I desire it to be understood that I do not limit myself to the exact construction described, but hold and consider myself entitled to any modification thereof which would suggest itself to the ordinary mechanic, such modification coming within the scope of my invention.

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

1. A double lock for sash-fasteners consisting of two separate bolts and bolt-operating

mechanisms mounted in separate frames parallel to each other, one edge and one face of each frame being composed of a single plate having bent-up sides, and the balance of each frame being composed of a single plate of metal secured to the first-named plate, substantially as described.

2. A double lock for sash-fasteners consisting of two frames mounted on the common plate which forms a side and edge of each frame, a bolt and spring-actuated bell-crank lever in each frame, and a T-shaped key-bar located between the two frames whose ends project through slots in the adjacent inner sides of said frames and engage said bell-crank levers in opposite directions, as set forth.

3. A sash-fastener comprising a case, a bolt therein, a spring-actuated bell-crank lever fulcrumed in the frame with one end engaging the bolt to throw the same, the case having an opening opposite the short arm of said lever, and the T-shaped key-bar having an end projecting through said slot and engaging the short arm of the bell-crank lever to withdraw the bolt, substantially as described.

4. A sash-fastener comprising a case, a bolt therein, a spring-actuated bell-crank lever fulcrumed in the frame with one end engaging the bolt to throw the same, the case having an opening opposite the short arm of said lever, and the T-shaped key-bar having an end projecting through said slot, and engaging the short arm of the bell-crank lever to withdraw the bolt in combination with the push-bar having the enlarged portion, the end knob and the annular flange with casing, a bore with the bushing therein, said bushing being of a greater diameter than any portion of the bar-box except the flange which is slightly greater in diameter than the inside of the bushing substantially as described.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

DAVID ARTHUR CRICHTON.

Witnesses:

OWEN E. DUFFY,
C. M. WERLE.