J. M. Evarts,

Sash Fastener.

No. 5,778. Patented Sep. 19, 1848.

Fig. 1.

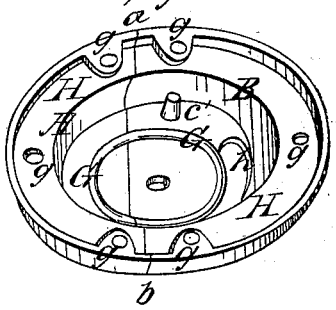


Fig. 2.

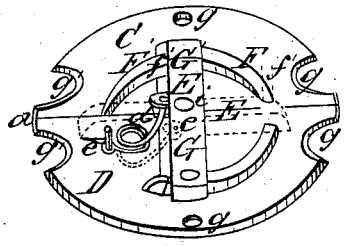


Fig. 4.

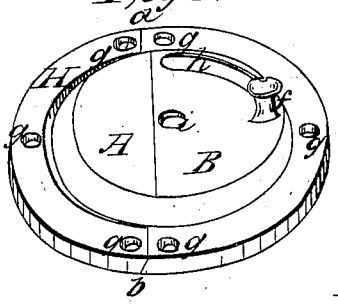


Fig. 5.

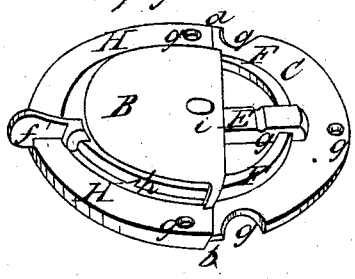
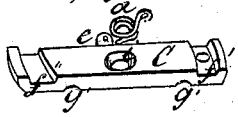


Fig. 3.



UNITED STATES PATENT OFFICE.

JAMES M. EVARTS, OF NEW HAVEN, CONNECTICUT.

WINDOW-SASH FASTENER.

Specification of Letters Patent No. 5,778, dated September 19, 1848.

To all whom it may concern:

Be it known that I, JAMES M. EVARTS, of the town of New Haven, in the county of New Haven and State of Connecticut, have invented a new and useful Improvement in Fasteners for Window-Sashes; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawings, which make a part of this specification, in which—

Figure 1 is a perspective view of the inside of the upper part of the case of the fastener; showing the small wards, which rest in the small spaces, or grooves, of the button, bolt, or catch, and designed to strengthen the case; and the small hollow projecting piece which steadies the spring by passing on to the pin to which one end of the spring is attached. Fig. 2, is a perspective view of the inside of the lower, or bottom, part of the case of the fastener; showing the main wards, on which the button, bolt, or catch, works, the pin to which one end of the spring is to be attached, and the catch, with the spring attached, resting in its proper position, as when fastened. Fig. 3, is a perspective view of the under side of the catch, showing the spaces, or grooves, near its ends, which work on the main wards on the inside of the lower part, or bottom, of the case, with the spring, which is to move, and to sustain it in its proper position, attached. Fig. 4, is a perspective view of the fastener complete, and ready to be attached to the bars of the window sash, and showing the knob, or handle, by which the catch, is to be moved, to fasten and to unfasten it, and a line showing the division of the case into two parts. Fig. 5, is a perspective view of a part of the fastener, showing the catch, extending out at the side of the case, over the rim, sufficiently to serve for a handle, by which to move it.

My improvement consists in making a firm, substantial, compact, and neat, fastener for window sashes, by inclosing the catch, and spring, in a snug and neat case, which catch, is to be moved to fasten, and to unfasten the sash, by means of a knob, or handle, which pass through a circular slot, or space, in the upper part of the case which incloses the catch, and spring. This catch, is carried to, and sustained firmly in, its proper position, (both when the sash is fastened, and when it is unfastened,) by a single, light spiral spring, of one or more turns, or coils, fitted in an elbow shape. This one spring, being attached by one of its ends to a small projecting piece on the edge of the catch, near the middle, and the other end being attached, or draped on, to a pin, cast on, or riveted into, the lower part of the case, in a proper position, works freely, and effectively, both to move, and to sustain, the catch, in all of its proper positions, working both ways with equal force and freedom.

I make the fastener of brass, by casting the upper part, (A, B, Fig. 1,) of the case in one piece, with a hole, (*i*, Fig. 1,) in the center to admit a screw, or rivet, (as seen at *i*, Figs. 4, and 5,) to hold the catch, (E, Figs. 2, and 3,) in its proper position; and to hold the case together, and with a circular slot, or space, *h*, Figs. 1, and 4 in the top, to admit the knob, or handle, *f'* Figs. 2, and 4. And with a small hollow projecting piece, *c'*, Fig. 1, to fit on to the pin, *c*, Fig. 2, which holds the end, *e*, of the spring, *d*, Figs. 2, and 3. And with a small ward, G, Fig. 1, (to strengthen the case,) and with a rim or projecting edge, H, H, Figs. 1, 4, and 5, entirely around it, of sufficient width for suitable screws to fasten it to the bars of the sash, by means of the holes *g*, *g*, *g*, *g*, *g*, *g*, Figs. 1, 4, and 5. I also make the bottom part, C, D, Fig. 2, of the case, of brass, by casting it in one piece, of the proper size and form to fit the under side of the rim, H, H, Fig. 1, (as seen in Fig. 2.)

In the center of this bottom part I cast a hole, *i*, Fig. 2, to admit the screw, or rivet, *i*, Figs. 4, and 5, to secure the catch, in its proper position in the case, (as seen in Figs. 2, and 5.) I also cast a circular ward F, F, on this bottom part, in a position about half way between the edge and the center, as seen in Fig. 2, and in part, in Fig. 5. I cast that part of the ward near F', Figs. 2, and 5, considerably smaller than the other parts by reducing that part of the pattern, on the outside of the ward; and thus allow the space, or groove, *f''*, Fig. 2, in the catch, to pass freely onto the ward, and as the outside of the ward gradually increases in distance from the center, as seen at F', Figs. 2, and 5, the groove, *f''*, Fig. 2, will continue to press harder on this increased, or swelled, surface as it passes to its position to fasten the sash, and will thereby draw

the two casements of the sash snugly together and prevent them from being moved or shaken.

In the under side of the catch, I cast, or make, two spaces, or grooves, f'', f'', Fig. 3, one near each end, to work on the wards, F, F, of the bottom part, C, D, of the case, as seen at f'', f'', Figs. 2 and 5. And two small spaces, G′, G′, Figs. 2, 3, and 5, on the upper side, to fit the small wards, G, G, Fig. 1. On the edge, and near the middle, of this catch, I cast, or make, a small projecting piece, *e*, Figs. 3, and 2, to which I attach one end of the spring, *d*, Figs. 3, and 2, by means of a joint pin, as seen at *e*, Figs. 3, and 2. I extend the end of the catch through the slot, *h*, Fig. 5, in the upper part of the case, and over the rim, H, H, to form a knob, or handle, as seen at *f*′, Fig. 5, or use the one before described.

I make this spiral spring, *a*, Figs. 2, and 3, of brass, or any other suitable, wire, by making one or more spiral turns, or coils, of suitable size, in the central part of the springs, as seen at *d*, Figs. 2, and 3, and turn a circular loop like *c*, Fig. 3, at each end to fit over pin *c* and joint pin *e* making the whole spring of the proper length to work freely both ways. I turn, and finish, the out side of the upper part, (A, B, Fig. 4,) of the case in a lathe, (or in any other suitable and convenient way).

Having attached the spring, *a*, to the catch, E, by means of the joint pin *e*, in the projection on its edge, I plan the other end, *e*, of the spring, *d*, on the pin, *c*, Fig. 2, and the catch, E, on the lower part, (C, D, Fig. 2,) of the case in its proper position. I then place the upper part, (A, B, Fig. 1,) of the case over the lower part, (C, D, Fig. 2,) and pass the hollow projecting piece, (*c*′, Fig. 1,) onto the pin, (*c*, Fig. 2,) and the knob, or handle, (*f*′, Fig. 2,) through the circular slot, (*h*, Figs. 1, and 4,) and insert the screw, or rivet, (*i*, Figs. 4, and 5,) to hold the catch, in its proper place, and to hold the two parts of the case together; when the upper side of the complete fastener will appear as seen in Fig. 4, and as it will appear when the sash is fastened. I then, by means of the knob, or handle, (*f*′, Fig. 4,) turn the catch, (E, Fig. 2,) to the position shown by the dotted lines, E′, Fig. 2, when the coil of the spring will be at *d*′, and the end attached to the catch, will be at *e*′, Fig. 2. I then saw or cut the case perpendicularly through, into two unequal parts (A, and B, Figs. 1, 4, and 5,) in the proper direction, near the side of the catch, leaving said button, and the spring &c., in the largest part, B, as shown by the line *a*, *b*, in Figs. 1, 2, 4 and 5.

The two parts of the case are to be screwed onto the two adjoining bars of the sash, in such a position as will allow the two casements of the sash to move freely by each other when they are unfastened. Each part of the case, A, B, Fig. 1 and C, D, Fig. 2, may be cast in one piece, as before described, or either of them may be cast in two pieces, as represented by the line *a*, *b*, Figs. 1, and 4, as may be deemed most convenient in any case, by the manufacturer. If I cast the upper part of the case, Fig. 1, in two pieces, I join them together with soft solder, or any other convenient substance, for the purpose of turning and finishing them in the lathe.

Any, or all, of the cast parts may be made of cast iron, or any other suitable cast metal. And the same parts may also be made of sheet brass, sheet iron, or any other suitable sheet metal, and be struck up by swages, so far as is necessary. The upper part of the case may be polished, japanned, plated, or finished in any other way.

This fastener may also be used for various other purposes, as for fastening, closet, and bookcase doors, &c. In some cases, the lower part of the case may be made without wards; and the catch, made without the spaces, or grooves, if thought proper. Or the main wards may be cast on the upper part of the case instead of the lower part, if preferred; but they should never be made without wards for window sashes, as they would be much less useful for that purpose.

The advantages of my improvement over all others heretofore used or known consist, among many, of the following, to wit. First, in making a much more compact, neat and useful fastener than any before known, by inclosing all the moving parts, (except the knob, or handle,) in a snug, neat, and smooth case, which will be an ornament to the window, as well as being very useful and safe. Second, from the shape of the ward, (on that part of the case, which is usually attached to the bar of the outer casement,) on which the catch, works, that is, its being swelled outward beyond the line of a segment of a perfect circle, on the outside, the groove near the end of the catch, presses upon the outer side of the ward, and thereby draws the two casements of the sash snugly together, and prevents any shaking or rattling of the sashes. And the spring pressing continually on the catch, in whatever position it may be, keeps it perfectly steady at all times. Third, the catch, being screwed in the center, and being firmly sustained throughout its whole length, both above and below, by the different parts of the case, is not liable to be strained out of its proper position, or to be injured by any force which is not sufficient to cut the catch square off.

While those now in use, from the extent of lever purchase which they afford and not

being properly sustained, are very liable to get out of order, by even very slight strains.

I am aware that fasteners for window sashes have been made in many ways; and that many, if not all, of the parts which, I use have been before used, I therefore claim none of the parts, as such; but

What I claim as my invention, and desire to secure by Letters Patent, is—

The combination of the parts, by making the fastener in such a manner that the button, bolt, or catch, and the spring which moves, and sustains it, shall be inclosed in a small, snug, and neat case; with the wards in the case so arranged and formed that by turning the button, bolt, or catch, to fasten the sash, it will, (by means of the spaces, or grooves in the button, bolt, or catch, working on the wards,) also draw the two casements of the sash snugly together, and hold them perfectly steady and firm. And so that the button bolt, or catch, will be so supported, and sustained, by the several parts of the case, and screw, (or rivet,) that it will not be liable to be strained out of its proper position, or injured, by any less force than would be required to cut the button, bolt, or catch, square off in the case which sustains it. And so that the button, bolt, or catch, will be moved to, and sustained firmly in, its proper position, at all times, both when fastened, and when unfastened, by a single spiral spring, made with one or more turns, or coils, so constructed, fitted, and arranged, as to work freely, and effectively, both ways, that is, to fasten and to unfasten. The whole constructed, arranged, combined, and operating, and for the purposes, substantially as herein described.

JAMES M. EVARTS.

Witnesses:
JESSE KNOWLES,
R. FITZGERALD.