

W. E. SPARKS.

FASTENERS FOR MEETING-RAILS OF SASHES.

No. 189,145.

Patented April 3, 1877.

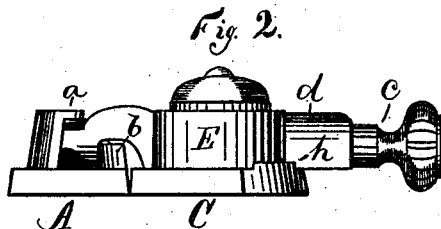
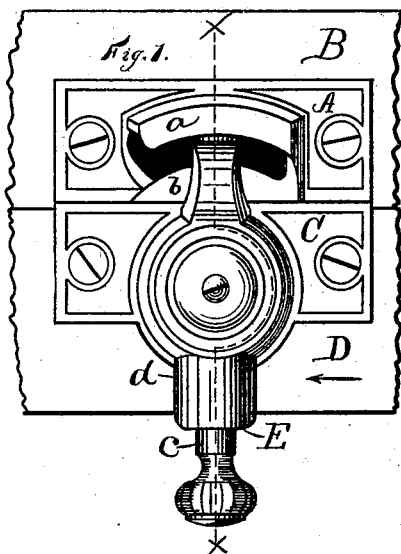


Fig. 4.

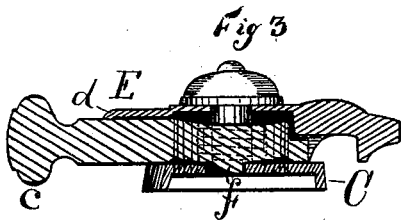
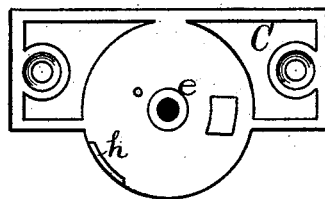
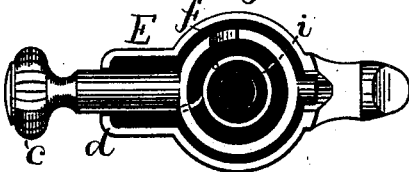


Fig. 3.



Witnesses
H. N. Galt
Layman S. Burr

Inventor
William E. Sparks.
By James Shepard Atty.

UNITED STATES PATENT OFFICE.

WILLIAM E. SPARKS, OF NEW BRITAIN, CONNECTICUT, ASSIGNOR TO
P. & F. CORBIN, OF SAME PLACE.

IMPROVEMENT IN FASTENERS FOR MEETING-RAILS OF SASHES.

Specification forming part of Letters Patent No. **189,145**, dated April 3, 1877; application filed
February 23, 1877.

To all whom it may concern:

Be it known that I, WILLIAM E. SPARKS, of New Britain, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Sash-Locks, of which the following is a specification:

My invention consists, mainly, in the peculiar sweep composed of two parts adapted to swing together on their transverse axis, and having one of said parts adapted to lock the sweep by an independent partial rotation on its longitudinal axis; and it further consists in the peculiar construction and novel combination of parts, as hereinafter more fully described and definitely claimed.

In the accompanying drawing, Figure 1 is a top view of a sash-lock which embodies my invention. Fig. 2 is a side elevation of the same. Fig. 3 is a vertical section of the front portion of the same on the line *xx* of Fig. 1, and Figs. 4 and 5 are views of detached parts of the same.

A designates the rear plate or keeper, which is designed to be attached to the upper sash, a portion of the lower rail of which is represented in Fig. 1, and designated by the letter E. C designates the front plate, which is designed to be attached to the upper rail D of the lower sash, and E designates the sweep. The rear plate A may be provided with any suitable keeper, and the short end of the sweep fitted to engage therewith. I form the keeper, by means of a chambered elevation, open at one end, and provided at the rear and top with an overhanging flange, *a*, the under side of which I prefer to make inclined, tapering toward the open end. Upon the front of the keeper I form a cam, *b*, disconnected from the flange *a* at the front, so that the sweep may pass between them. The end of the sweep E which engages with said keeper has an engaging-surface formed on the top side of the extreme end, which engages with the under side of the flange *a*, and a downward depending flange or hook upon its under side, which engages with the rear edge of the cam *b*, the body of the sweep in front of said hook passing over the cam *b*, as shown.

The sweep E I form of two parts, *c d*, fitted

to swing together on a fixed stud, *e*, Fig. 4, of the front plate C. The part *d* is chambered around the stud *e*. Its rear end is fitted to engage with the keeper, as before described, and at each end of the chamber there is a bearing, in which bearings the part *c* is fitted so as to partially rotate on its longitudinal axis. A portion of the part *c* is made annular, so as to surround the stud *e*, and within this annular portion there is a spiral spring, one end of which rests in a notch on the top of the part *c*, and the other end in a hole in the front plate C, a detached plan view of which plate, with the hole for the spring in it, is shown in Fig. 4, and Fig. 5 shows a view of the two parts *c d* of the sweep E and the spring *i*, said parts being detached from the plate C, and represented as viewed from the under side. The spring is also indicated by broken lines in Fig. 3.

The annular portion of the part *c* is of less depth than the chamber in the part *d*, so that it can rock therein, and upon its under side is a tooth or projection, *f*, which, when the sweep E is in the position shown in Figs. 1, 2, and 3, engages with a recess in front plate C, as shown in Fig. 3, the recess also being shown in Fig. 4, at the right of the stud *e*. On the front plate C there is a stop, *g*, to stop the sweep in its proper position. A suitable cap, *h*, held by a screw or otherwise, holds the parts together. The spring *i* is of such length and its ends are so confined in place that when the sweep is swung around parallel to the sash-rails B D, the spring will still have a tendency to force the sweep against the stop *h* and hold it in place. When the sweep is in this position, the sashes may be raised and lowered at pleasure. To lock the sash, the meeting-rails B D are brought together, and the sweep is swung around on its transverse axis at right angles to the sash-rails, when the rear end engages with the keeper, as shown in Figs. 1 and 2. In bringing the sweep into this position it acts against the spring to wind it up. When the tooth or projection *f* reaches its position over the recess in the plate C, the spring, by reason of being secured so as to bear at the top of the part *c*—that is, above its longitudinal axis—

has a tendency to rotate or rock said part *c* on its longitudinal axis, and tip or twist the annular portion, and force the tooth or projection into its recess, as shown in Fig. 3. In this position the sweep is locked in its place beyond any accidental displacement, and also beyond any intentional displacement by burglars or others from the outside. By grasping the head of the part *c* and giving it a slight turn against the power of the spring, the tooth or projection *h* is disengaged from the plate C, when the spring will throw the sweep around parallel with the sash rails. When the rear end of the sweep is brought into the keeper, the inclined under surface of the flange *a*, acting on the top of the sweep, will lift the upper sash or force the lower sash downward in case they were not previously in place, and the hook upon the under side of the sweep, by engaging with the rear side of the cam *b*, will draw the sashes together.

Other forms of spring—as, for instance, a sheet-metal scroll-spring—might be connected to the parts *c*, *d*, and C, to operate in the manner described, and other styles of keeper and rear end of the sweep might, if desired, be

employed, without changing the other features of the sweep and front plate hereinbefore described.

I claim as my invention—

1. In a sash-lock, the sweep composed of two parts adapted to swing together on a transverse axis, and having one of said parts adapted to lock the sweep by an independent partial rotation on its longitudinal axis, substantially as described, and for the purpose specified.

2. In combination with the two-part sweep E and plate C, a single spring, *i*, operating to swing the parts *c d* of the sweep and partially rotate the part *c*, substantially as described, and for the purpose specified.

3. In a sash-lock, the keeper A, open at its end, and provided with the overhanging flange *a* at the rear and the cam *b* at the front, disconnected from said flange, substantially as described, and for the purpose specified.

WILLIAM E. SPARKS.

Witnesses:

CHARLES PECK,
E. L. PRIOR.