(No Model.)

B. F. CORNELL.

SASH FASTENER.

No. 598,696. Patented Feb. 8, 1898.

Fig. 1.

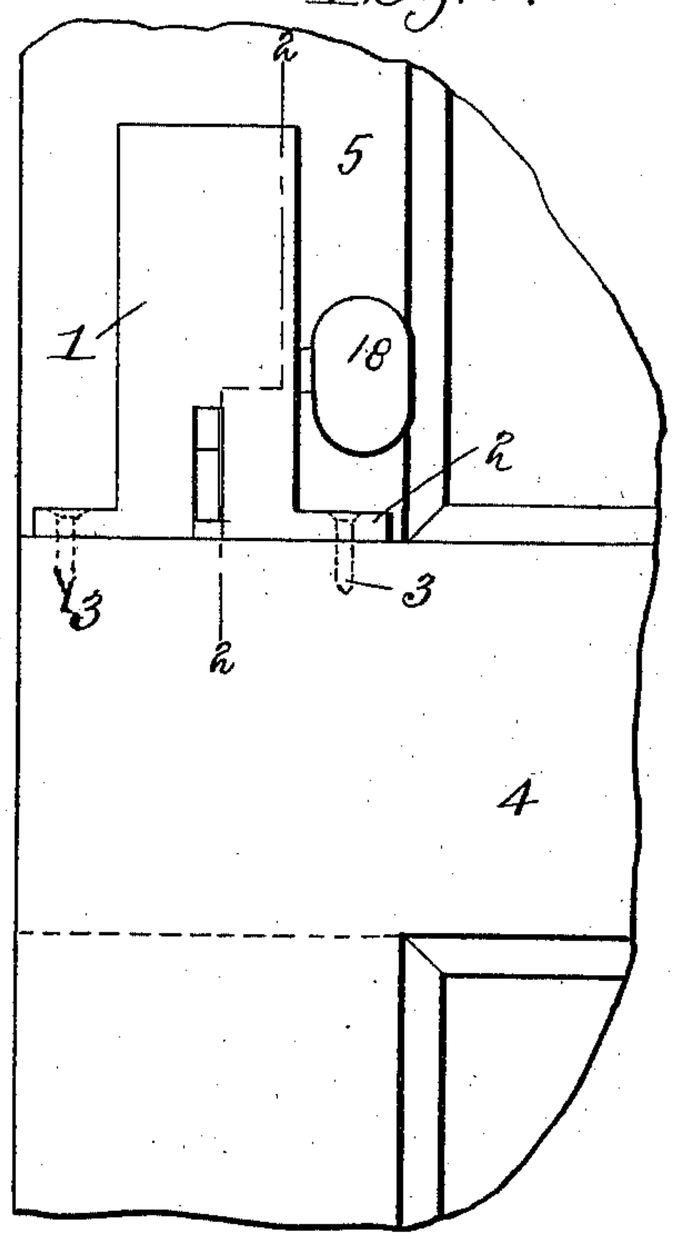


Fig. 2.

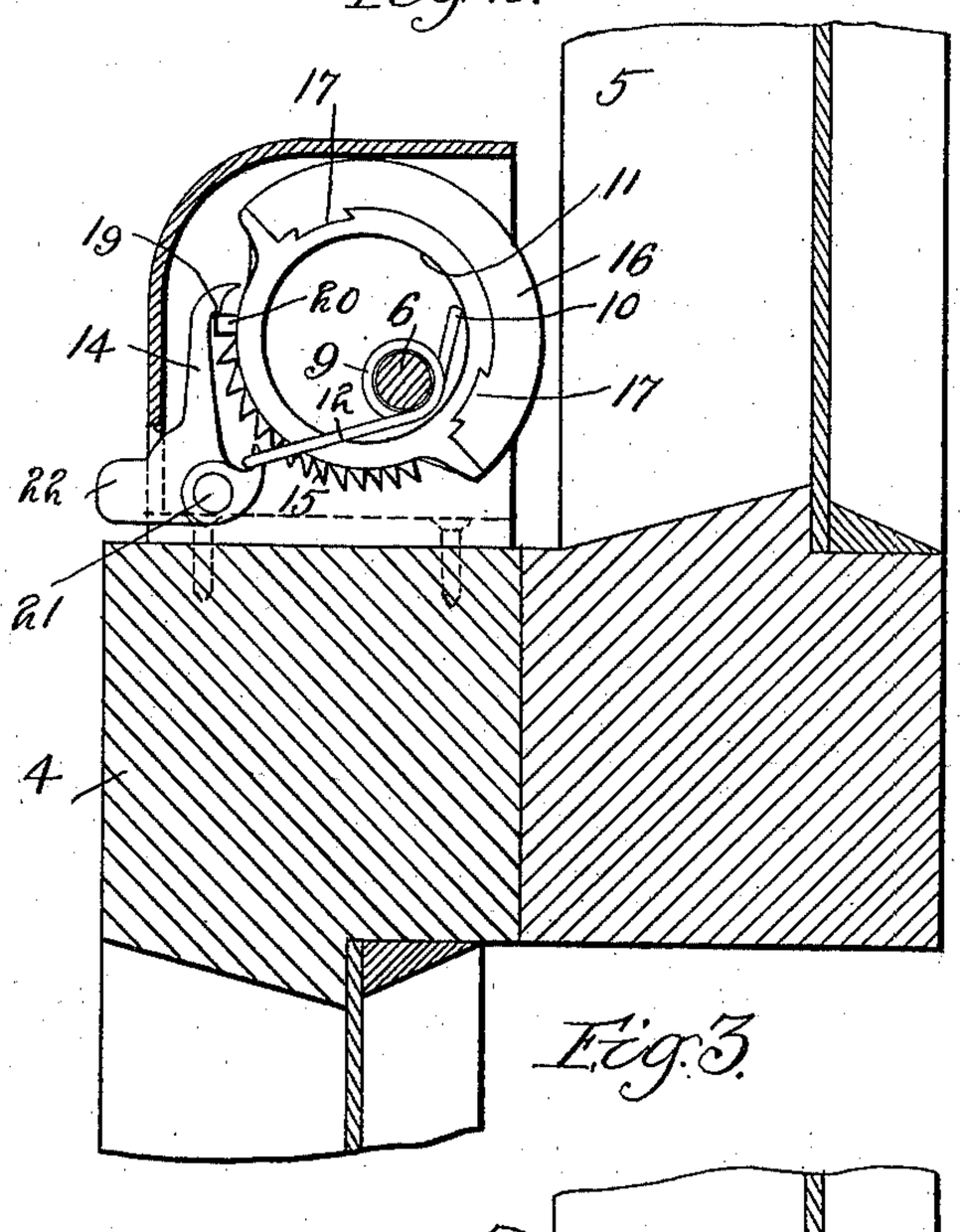


Fig. 3.

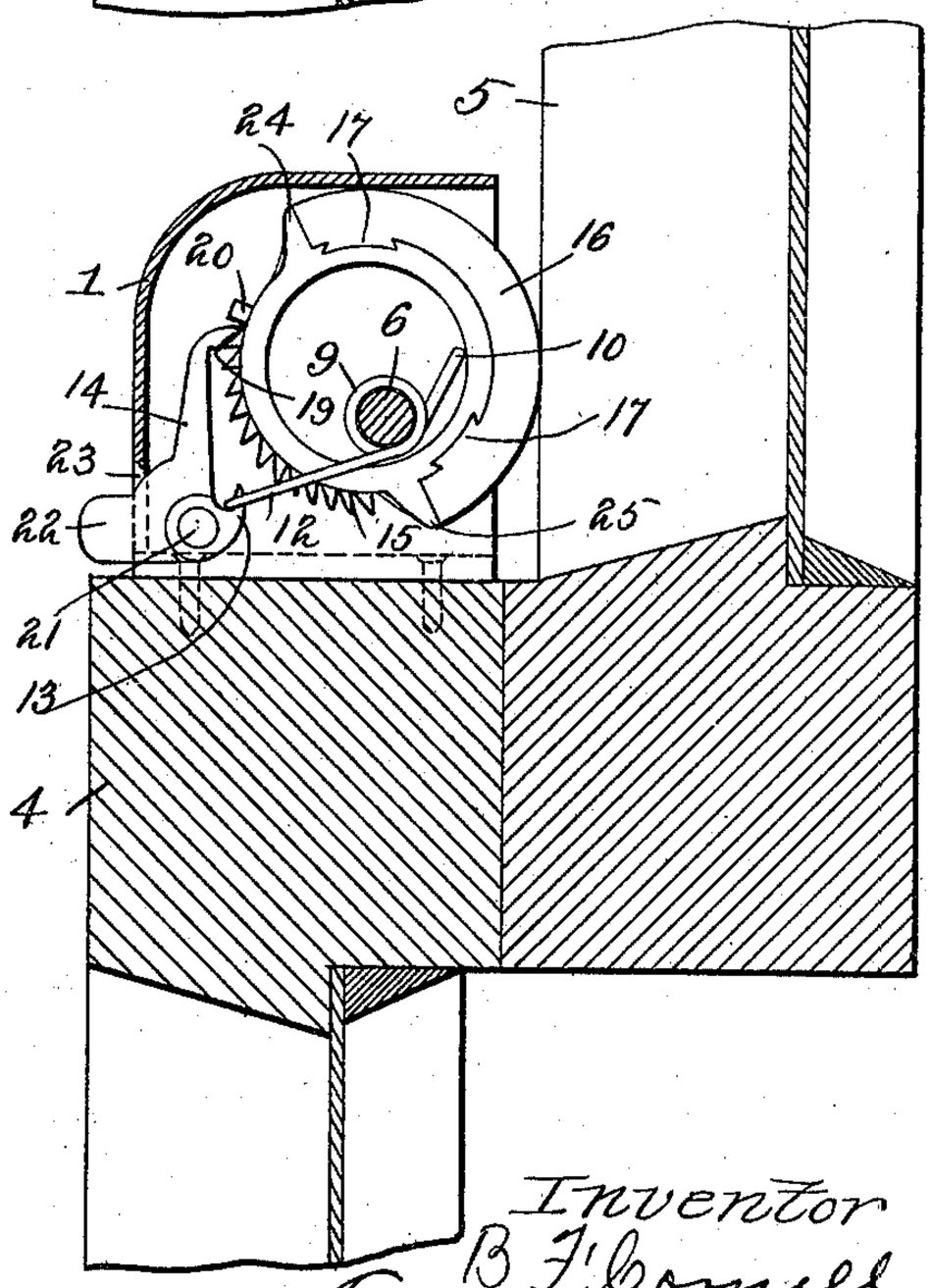
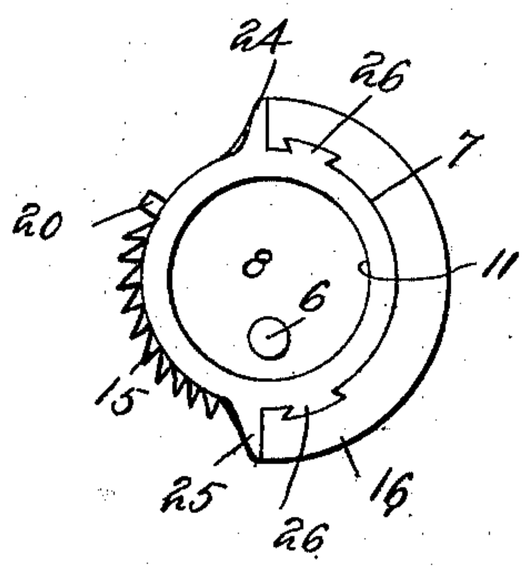


Fig. 4.



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UNITED STATES PATENT OFFICE.

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SASH-FASTENER.

SPECIFICATION forming part of Letters Patent No. 598,696, dated February 8, 1898.

Application filed September 3, 1896. Serial No. 604,794. (No model.)

To all whom it may concern:

Be it known that I, BENJAMIN F. CORNELL, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Sash-Fasteners, of which the following is a full, clear, and exact specification.

My invention relates more particularly to that form of sash-fasteners employed for locking the two sashes of the window together and which is usually secured to the upper part of the lower sash and bears against some portion of the upper one; and my invention has for its primary object to provide an improved and simple form of device for this purpose which will lock the two sashes together at any desired relative position, so that the window may be left open a sufficient distance for ventilation either at the top or bottom, or both, with the assurance that the bottom sash cannot be pushed farther upward or the top one pulled down a sufficient extent to enable a person to gain access to the room or house through the window without first releasing the lock or fastener.

With these ends in view my invention consists in certain features of novelty shown in the drawings, described in the specification, and particularly pointed out in the claims.

In the said drawings, Figure 1 is a face view of a portion of the upper and lower sashes of the window provided with my improved lock. Fig. 2 is a vertical section thereof, taken on the line 2 2, Fig. 1, showing the lock or fastener thrown off or in its released position. Fig. 3 is a view similar to Fig. 1, showing the fastener in its operative or engaging position; and Fig. 4 is a detail view of the locking-eccentric in side elevation, illustrating certain modifications in the manner of attaching the friction-shoe thereto.

In carrying out my invention I employ a suitable casing 1, which is provided at its lower side with feet or flanges 2, having perforations for the passage of screws 3 or other fastening devices by means of which the casing is securely fastened to the upper side of the lower sash 4 at a point opposite one of the side rails 5 of the upper sash. Journaled within this casing 1 on the center or pin 6 is an eccentric 7, the pin or center 6 being either secured to the eccentric 7 and projecting from each side thereof like trunnions, or being a separate pin passing through the eccentric at the proper distance from the center thereof and having its ends journaled in the side members of the casing 1.

One side of the eccentric 7 is provided with a countersink 8 or is recessed, and in which countersink or recess is located the coil 9 of a spring which is sleeved upon the journal 6 and has one of its ends 10 bearing against the flange 11, formed by the countersink or recess 8, so that the pressure of the ends 10 of the spring will tend to rotate the eccentric to the right, as viewed in Figs. 2 and 3. The other end 12 of the spring is bent laterally or at substantially right angles and rests upon a nose or hook 13, formed on or secured to a pawl 14, which is adapted to engage with any one of a series of teeth 15, formed on one edge of the eccentric, so that the eccentric will be held from turning to the left against the inertia of the end 10 of the spring. The opposite edge or side of the eccentric is adapted to engage with and bind against the rail 5 of the upper sash, and in order that the latter may not be marred by this engagement of the eccentric the latter is provided with a shoe 16, constructed of some reasonably soft or yielding material—such, for instance, as vulcanized rubber—which may be secured to the eccentric in a circular form in any desired manner. The means shown in Figs. 2 and 3 for attaching this shoe 16 to the eccentric consists of a dovetail 17, formed on the shoe at or near each end thereof and engaging in a dovetail groove formed in the edge of the eccentric.

The end of the journal or pivot-pin 6 is provided on the exterior of the casing 1 with an operating knob or thumb-piece 18, whereby the eccentric may be turned back against the inertia of the spring to the position shown in Fig. 2, and when in such position it is held from reëngagement with the sash by means of a heel-piece 19, formed on the under side of the pawl 14 and adapted to engage with a tooth or lug 20, formed on the eccentric at the upper end of the series of teeth 15. The pawl 14 is journaled on and supported by a pin 21, whose ends engage in the sides of the casing 1 or other convenient parts, and the

pawl is also formed with a thumb-piece 22, which projects through a rear opening 23 in the casing 1. When it is desired to lock the sashes together or to arrange the device so that it will be in readiness to lock the sashes together in the event the attempt is made to either raise the lower sash or lower the upper one, the thumb-piece 22 is pressed downward until the heel 14 releases the lug 20, whereupon the end 10 of the spring will throw the shoe 16 against the rail 5 of the upper sash, as shown in Fig. 3. If now an attempt is made to raise the lower sash, it will be seen that the friction of the shoe 16 against the upper sash will cause the rotation of the eccentric, and will consequently force the shoe against the upper sash and bind the two sashes together in direct ratio to the upward pressure; or, on the other hand, should the attempt to lower the upper sash be made the same effect will be produced, and in either event should the pressure be continued sufficiently far to compress the rubber shoe 16 the tooth 24, formed on the eccentric at the end of the shoe 16, will come into engagement with the upper sash, and digging thereinto will absolutely prevent any further rotation of the eccentric. A similar tooth 25 may be arranged at the lower end of the shoe 16 for protecting the same.

When it is desired to release the lock, the pawl 14 is thrown out of engagement with the teeth 15 by pressing upon the thumb-piece 22, and the eccentric is rotated backwardly by means of the knob 18 until the lug 20 engages under the heel 19.

In the event the lower sash should not be provided with sash-weights and it should be desired to utilize the fastener for holding the sash at the desired elevation the shoe 16 may be turned against the upper sash, as before described, and the lower one then pushed up until the shoe firmly binds. It will be held in this position by the pawl 14 engaging with the teeth 15, if not by the friction of the lower sash against the inner bead.

In Fig. 4 I have shown the shoe 16 attached to the eccentric by means of dovetails 26, formed on the eccentric and engaging in dovetail grooves formed in the shoe.

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

1. The combination with the upper and lower sashes, of an eccentric mounted upon the lower sash and adapted to bear against the upper sash and being provided with a lug and a series of teeth, a pawl adapted to engage with said teeth for holding said eccentric in engagement and having a heel-piece adapted to engage with said lug for holding the eccentric out of engagement, a spring normally tending to force said eccentric into engagement and impelling said pawl toward said teeth and lug, and means for releasing said pawl, substantially as set forth.

2. The combination with the upper and lower sashes, of an eccentric mounted upon the lower sash and adapted to bear against the upper sash and being provided on one side with the flange 11 and having a series of teeth and a lug, a pawl arranged to engage with said teeth for holding said eccentric in engagement and having a heel-piece adapted to engage with said lug for holding the eccentric out of engagement, a spring having one end bearing against said flange 11 and its other end bearing against said pawl whereby the pawl will be impelled toward the eccentric and the eccentric impelled toward the upper sash, substantially as set forth.

3. The combination with the upper and lower sashes, of an eccentric secured to the lower sash, a compressible shoe secured to one side of said eccentric and adapted to bear against the upper sash, said eccentric being provided with the tooth 24 at or near one end of said shoe, substantially as set forth.

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