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F. W. BARBER & I. G. FRENCH.

SASH LOCK.

APPLICATION FILED SEPT. 23, 1907.

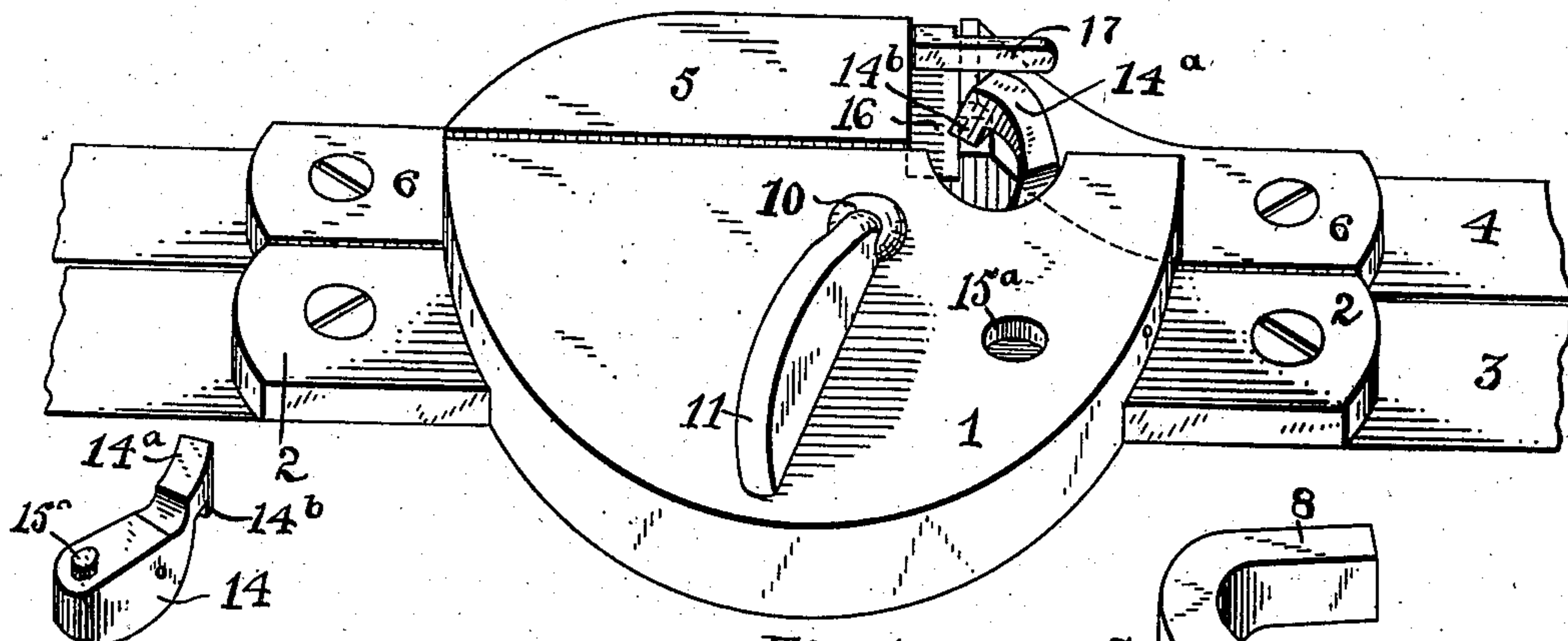


Fig. 1.

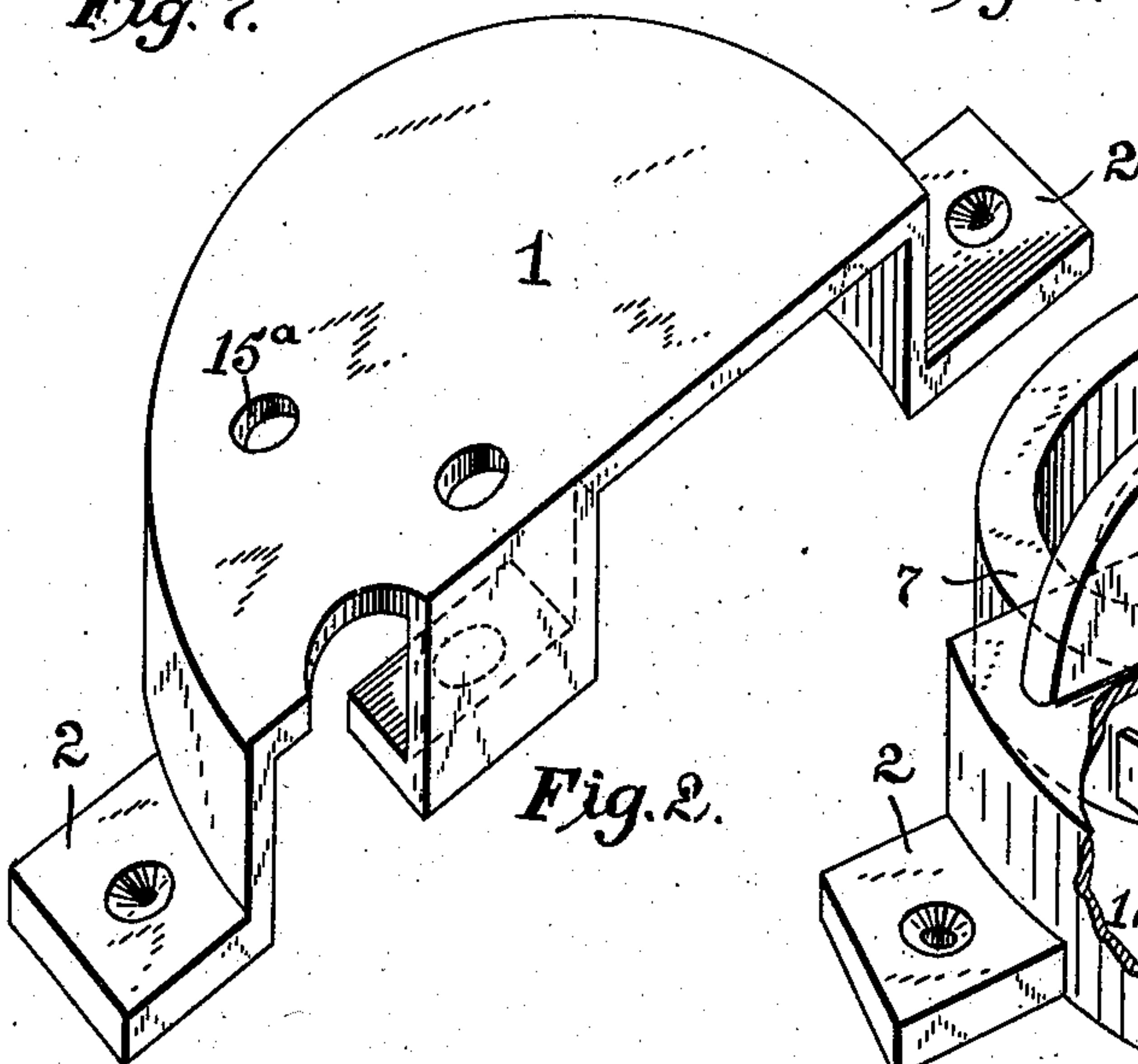


Fig. 2.

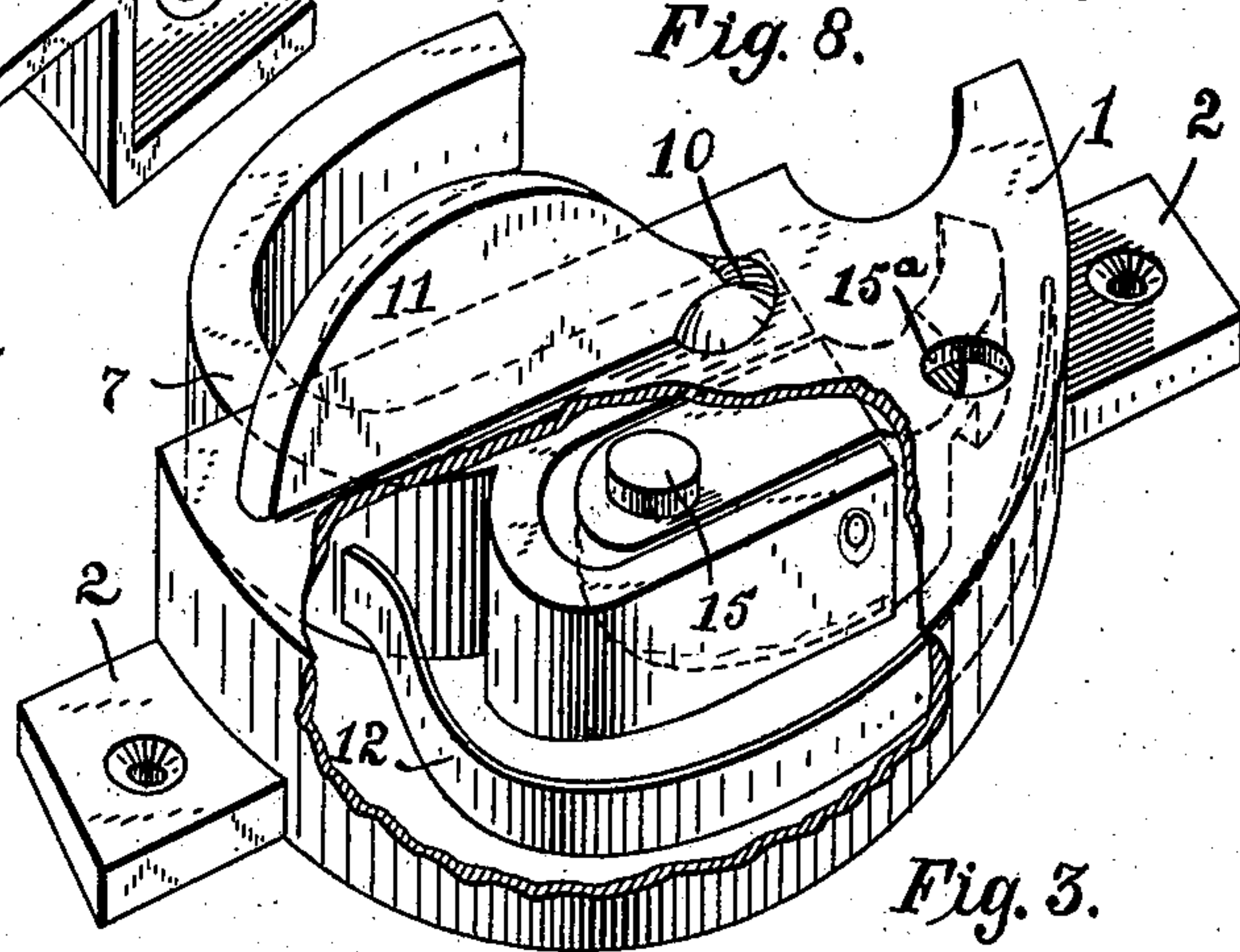


Fig. 3.

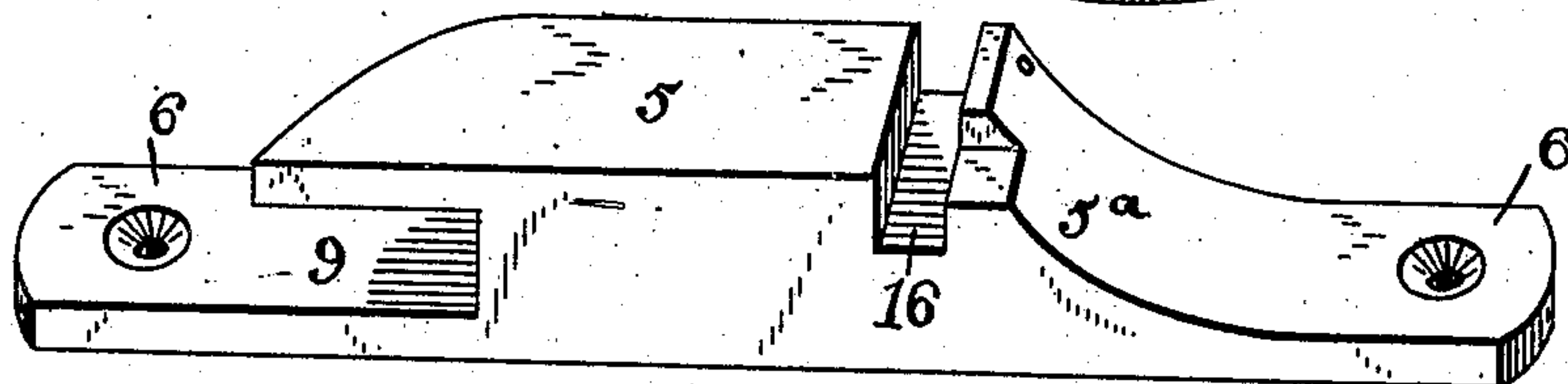


Fig. 4.



Fig. 6.

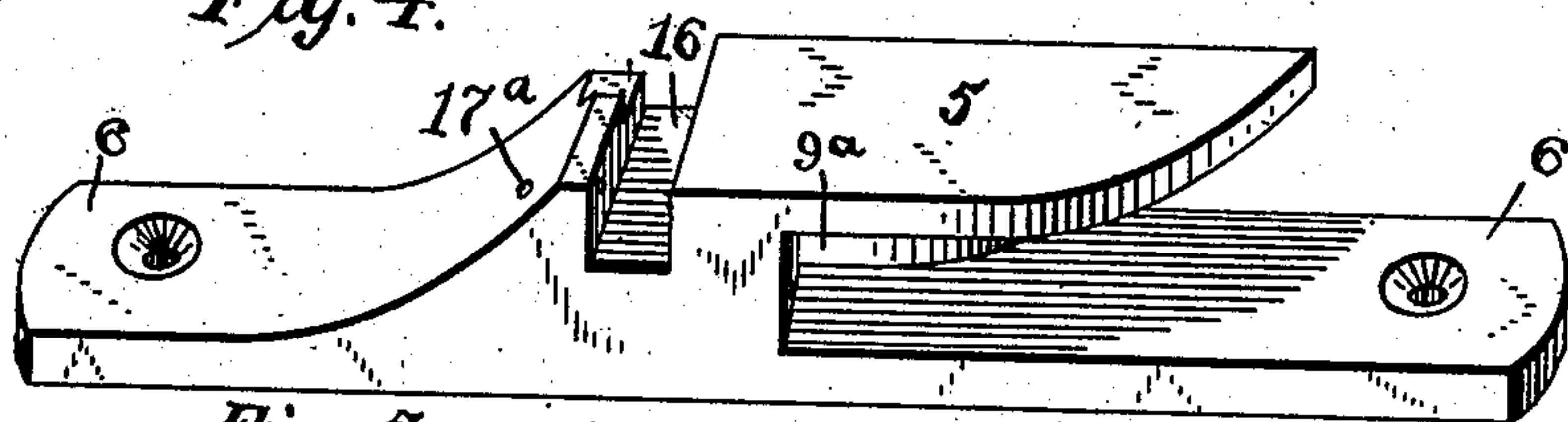


Fig. 5.

Attest:

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# UNITED STATES PATENT OFFICE.

FREDERICK WILLIAM BARBER AND IRA GATES FRENCH, OF ORANGE, MASSACHUSETTS.

## SASH-LOCK.

No. 894,571.

Specification of Letters Patent.

Patented July 28, 1908.

Application filed September 23, 1907. Serial No. 394,219.

*To all whom it may concern:*

Be it known that we, FREDERICK WILLIAM BARBER and IRA GATES FRENCH, citizens of the United States, residing at Orange, Massachusetts, have invented certain new and useful Improvements in Sash-Locks, of which the following is a specification.

Our present invention relates to improvements in window sash locks.

10 Among the objects of the invention are to provide a lock which shall be automatic in its locking action and which shall be capable of being released by a cord or the like whereby the window may be operated and locked and  
15 unlocked when it is beyond the reach of the hand of an individual.

Other objects are to provide a lock of extreme simplicity, economy and durability and one which will be an anti-rattler.

20 With these and possibly other objects in view the invention includes the novel features of construction and arrangement and combination of parts hereinafter described and particularly pointed out in the appended claims.

25 A lock constructed in accordance with our invention is shown in the accompanying drawings in which:

Figure 1 is a perspective view of the lock applied to the meeting rails of the upper and  
30 lower sash of a window. Fig. 2 is a perspective detail of the part or casing which is carried by the top rail of the bottom sash. Fig. 3 is a similar view partly broken away to show the parts within. Figs. 4 and 5 are  
35 perspective views from opposite sides of the part or member which is secured to the lower or bottom rail of the upper sash. Figs. 6, 7 and 8 are detail views of various parts.

Referring by reference characters to these  
40 drawings the numeral 1 designates a hollow and approximately semicircular case which contains the locking bolt and which is provided with lugs 2 perforated to receive attaching means such as screws by which it may  
45 be secured to top rail 3 of a lower sash. The complementary member, which is secured to the bottom rail 4 of the upper sash is shown at 5 having similar perforated attaching  
ears 6.

50 Within the case 1 is located a locking member 7 which has a locking tongue 8 substantially concentric with the inner curved wall of the case 1 and adapted when projected from the case in the manner hereinafter described,  
55 to project into and engage a recess 9 in the member 5. The locking member 7 is rigidly

mounted upon a spindle or pin 10 which is journaled in the walls of the case 1 and has a thumb piece 11 above the top of the case by which the locking member may be operated. 60

A spring 12 located within the case and having one end rigidly held thereto and the other end bearing a portion of the locking member, tends constantly to cause such locking member to swing upon its pivot and  
65 its end 8 to be projected from the case 1 into the slot 9. Thus it will be seen that it is only necessary to hold this locking member normally retracted against the tension of the spring and to release it when the meeting  
70 rails are together to cause the sash to be automatically locked. The means by which this automatic action is accomplished will be described later on. The curved wall 9<sup>a</sup> of the slot is preferably struck on an arc  
75 eccentric to the arc of the portion 8 of the locking member so that as the locking member swings into engagement therewith under the action of the spring it produces a drawing or binding action pulling the two sash to-  
80 gether and effectually preventing any rattling thereof. On the side of the locking member opposite to its pivot it is provided with a bifurcated or recessed portion 13 in the recess 13<sup>a</sup> of which is pivoted a pawl 14. 85  
The pivot is so arranged that the end 14<sup>a</sup> of this pawl is heavier and it is carried to drop by gravity. Its opposite end is provided with a pin or projection 15 which, when the locking member 7 is retracted against the  
90 tension of the spring, engages with a notch or recess 15<sup>a</sup> in the case 1 and thus holds the locking member retracted and in its unlocked or inactive position. During this time and when the sash are closed so that  
95 their meeting rails are together the tail or projection 14<sup>b</sup> of the end 14<sup>a</sup> rests in a recess 16 in the complementary member 5 and both hands may thus be used to open the window. A pawl or dog 17 is pivoted at 17<sup>a</sup> 100  
between the walls of the slot and as the window is opened by either moving the lower sash upwardly or the upper sash downwardly this pawl 17 drops in behind or underneath the end 14<sup>a</sup> of the arm 14 and fills  
105 the slot. Now when the window is again closed and the end 14<sup>a</sup> of the pawl 14 goes down against the complementary member 5 the slot 16, being filled by the dog 17, the latter is struck by the projection 14<sup>b</sup> and the  
110 pawl 14 thus rocked on its pivot to disengage its projection 15 from the recess 15<sup>a</sup>. The



result is that the locking member 7 is released and is forced by its spring 12 around into engagement with the complementary member 5. When it is desired to again open the window by operating the thumb piece 11 the locking member 7 may be withdrawn against the tension of the spring and the pawl 14 riding up the incline 5<sup>a</sup> of the member 5 will lift the dog 17 and at the same time that its end 14<sup>b</sup> rests in the recess 16 the projection 15 will have engaged the recess 15<sup>a</sup>, thus locking the bolt or locking member 7 in its retracted position.

Although we have described the thumb piece 11 as attached to the pivot pin the proper working of the lock is not restricted to this precise arrangement.

Various changes in the form, proportions and minor details of our invention may be resorted to at will without departing from the spirit and scope thereof. Hence we consider ourselves entitled to all such variations as may be within the intent of our claims.

Having thus described our invention what we claim is:

1. A sash lock comprising a casing having a swinging bolt and a complementary member having a recess to receive said bolt, a spring tending normally to project said bolt, a pawl pivotally carried by the bolt for engaging a stationary part to hold the bolt retracted, and means carried by the complementary member for tripping said pawl.

2. A sash lock comprising a casing having a semicircular interior chamber, a locking bolt pivoted within said chamber, a keeper having a recess to receive said bolt, said bolt having a rounded bearing portion eccentric to its pivot, and a leaf spring interposed between the inner wall of the casing and said

bolt and bearing against said bearing portion, said bolt and said keeper having engaging parts curved on arcs of different radii, means connected with said bolt and extending outside the casing for manipulating the same, means for holding the bolt retracted against the tension of the spring and means for automatically tripping the bolt substantially as described.

3. A sash lock comprising a casing having a swinging bolt and a keeper having a recess to receive said bolt, a spring tending normally to project said bolt, a pawl pivotally carried by the bolt and adapted to engage a stationary part of the complementary member to hold said bolt retracted, said pawl having an end adapted to overlie a portion of the keeper, and a movable contact member carried by the keeper and adapted on the closing of the window to swing said pawl.

4. A sash lock comprising a casing having a swinging bolt, a keeper having a recess to receive said bolt, a spring tending constantly to project said bolt, a pawl pivotally carried by said bolt and adapted to engage a stationary part to hold said bolt retracted, said pawl having a projecting weighted end, a depression in the keeper to receive said projecting end, a pivoted filling piece for said depression, and an incline on the keeper, said filling piece having a part overhanging said incline.

In testimony whereof, we affix our signatures in presence of two witnesses.

FRED. WILLIAM BARBER.  
IRA GATES FRENCH.

Witnesses:

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JOSEPH SPENCER.