

No. 674,065.

G. W. MACKENZIE.

Patented May 14, 1901.

SASH LOCK.

(Application filed Jan. 26, 1899.)

(No Model.)

Fig. 1.

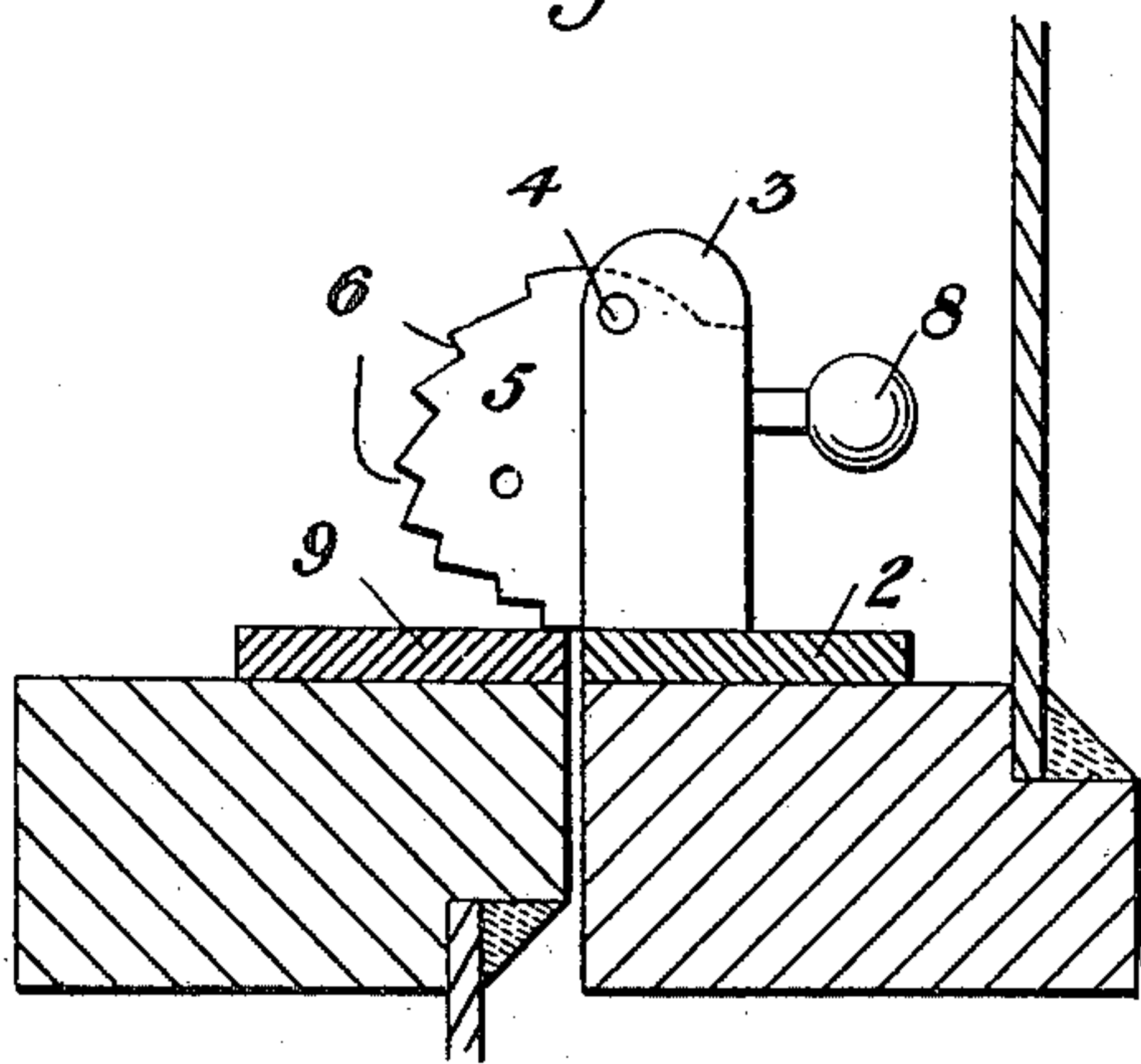


Fig. 2.

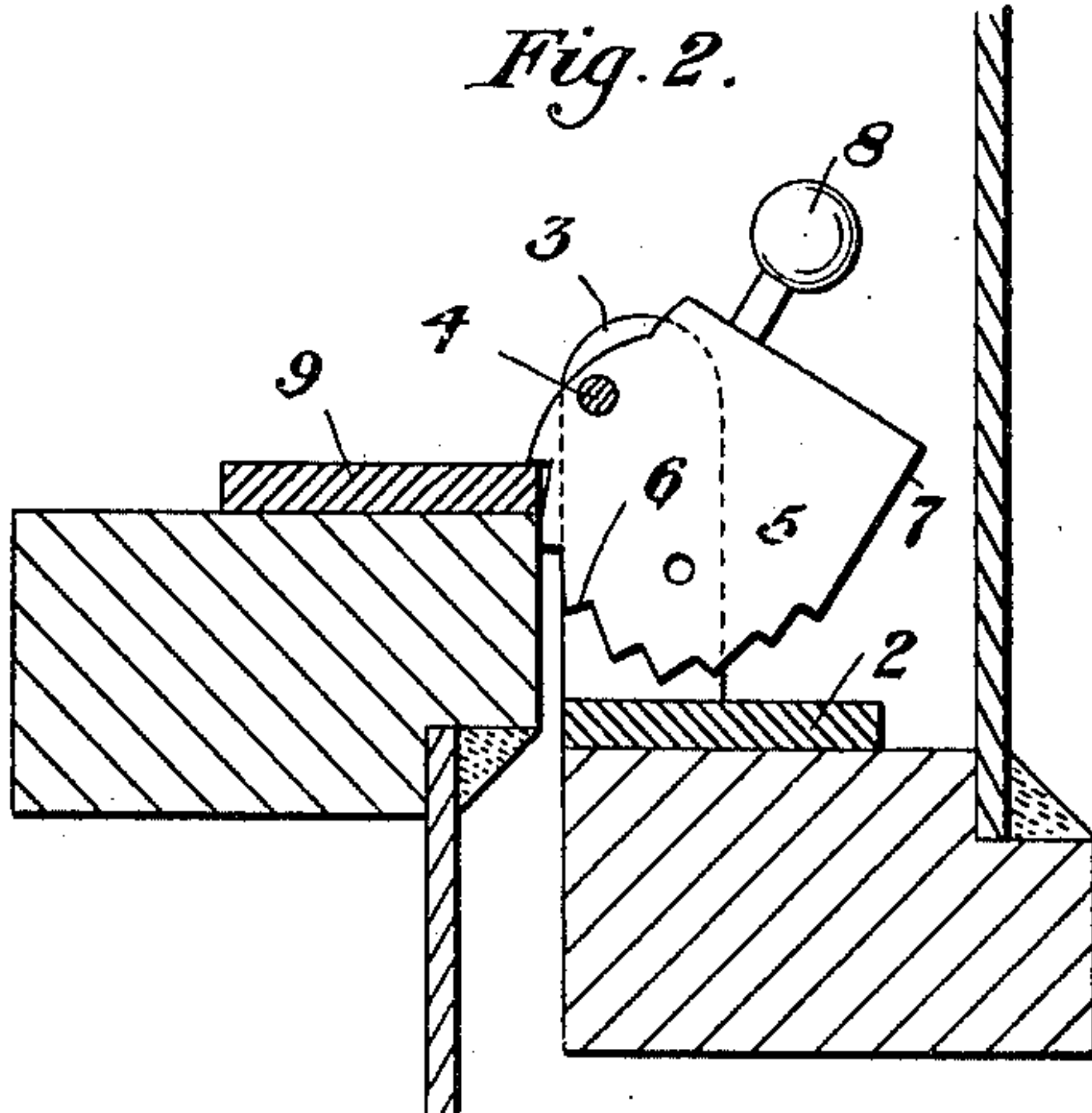


Fig. 4.

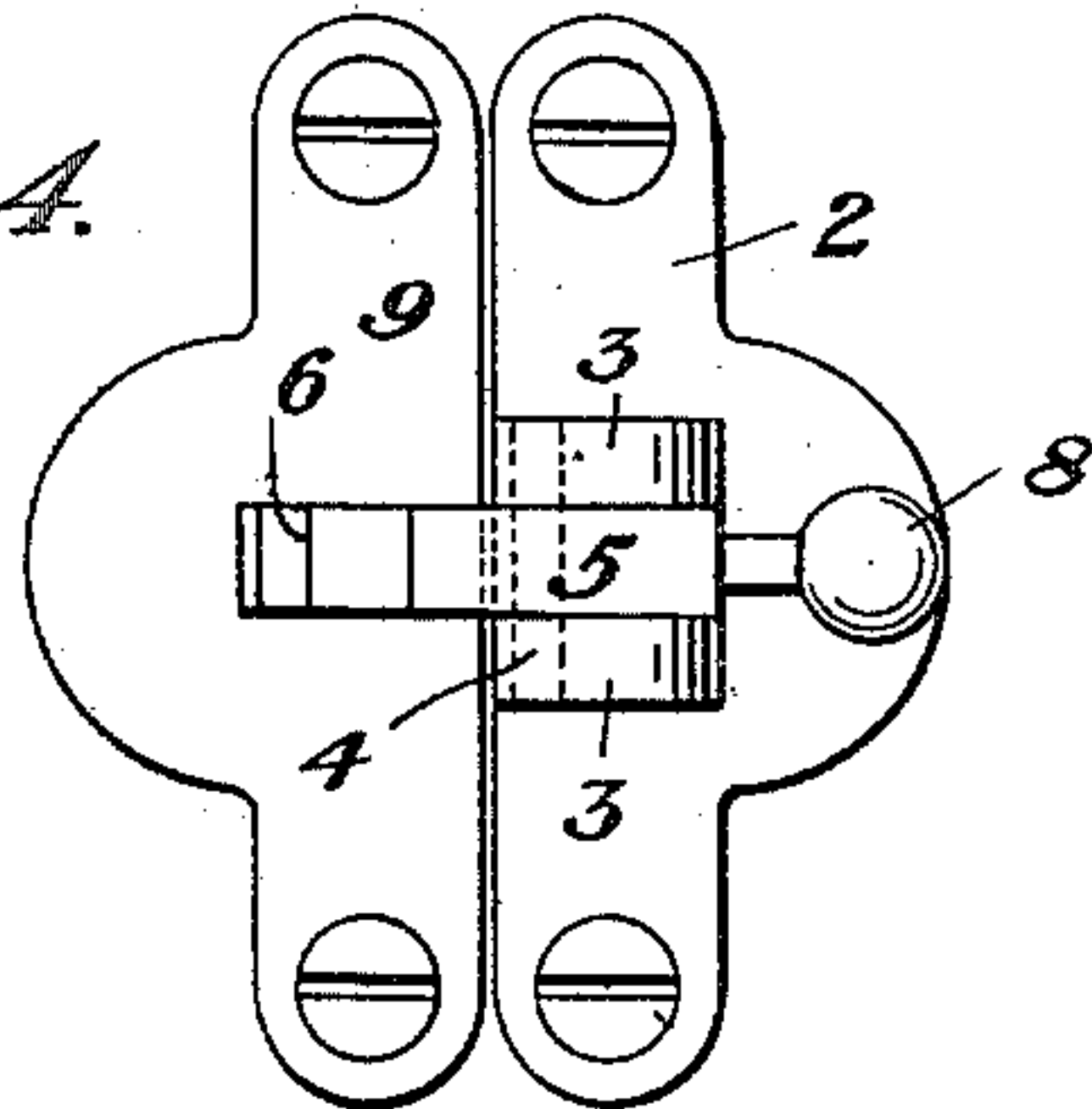


Fig. 3.

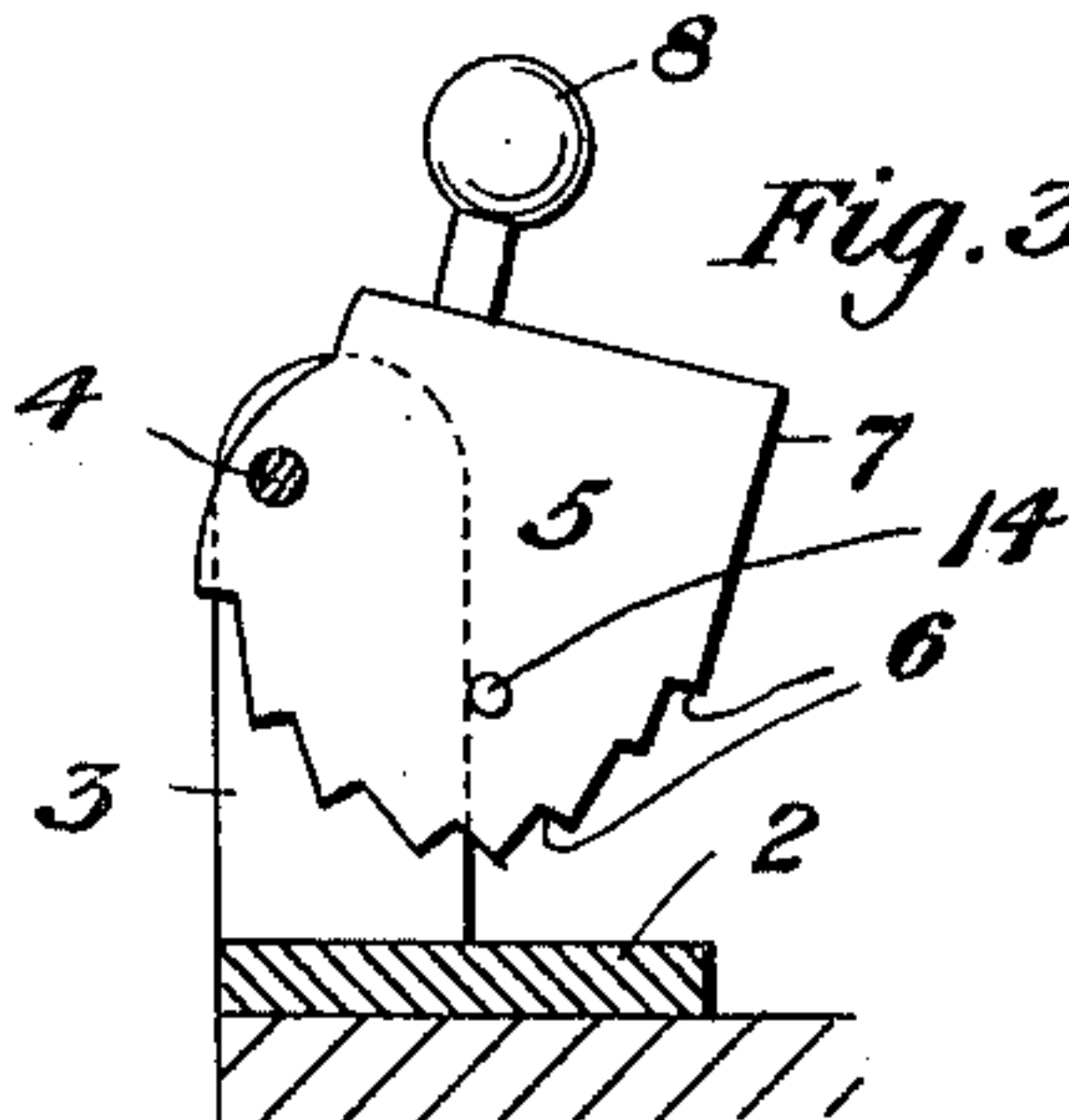


Fig. 7.

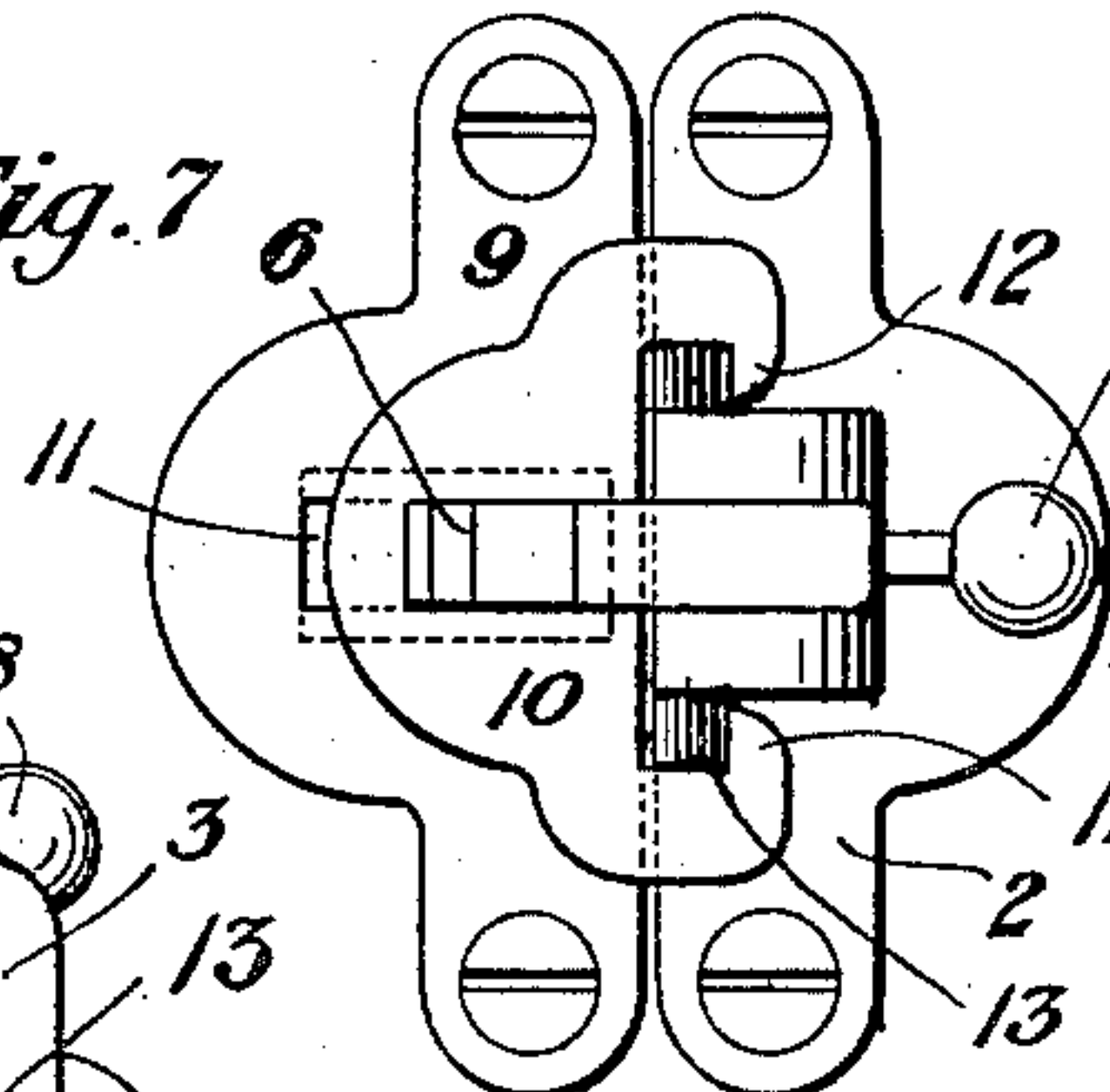


Fig. 8.

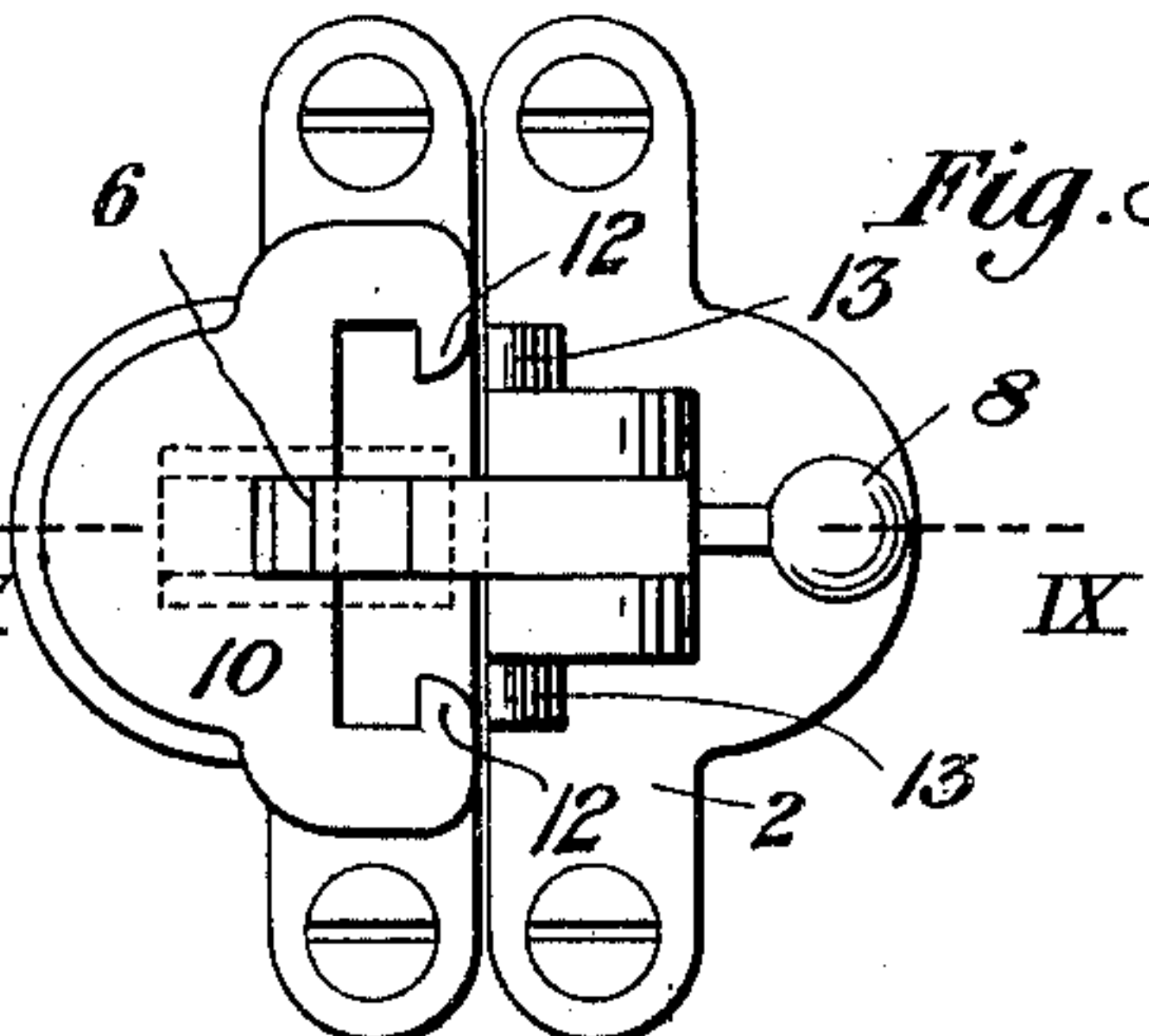


Fig. 5.

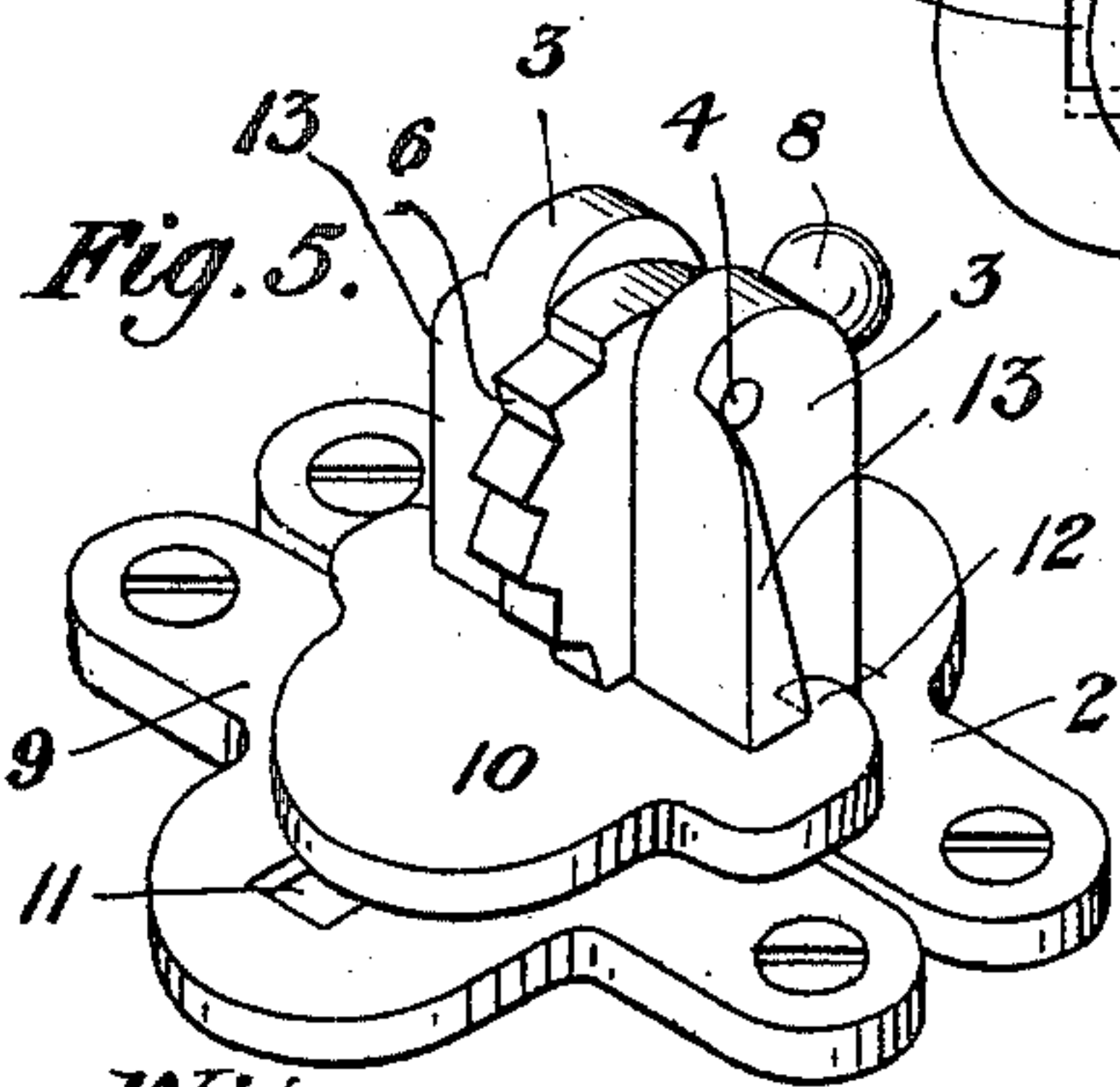
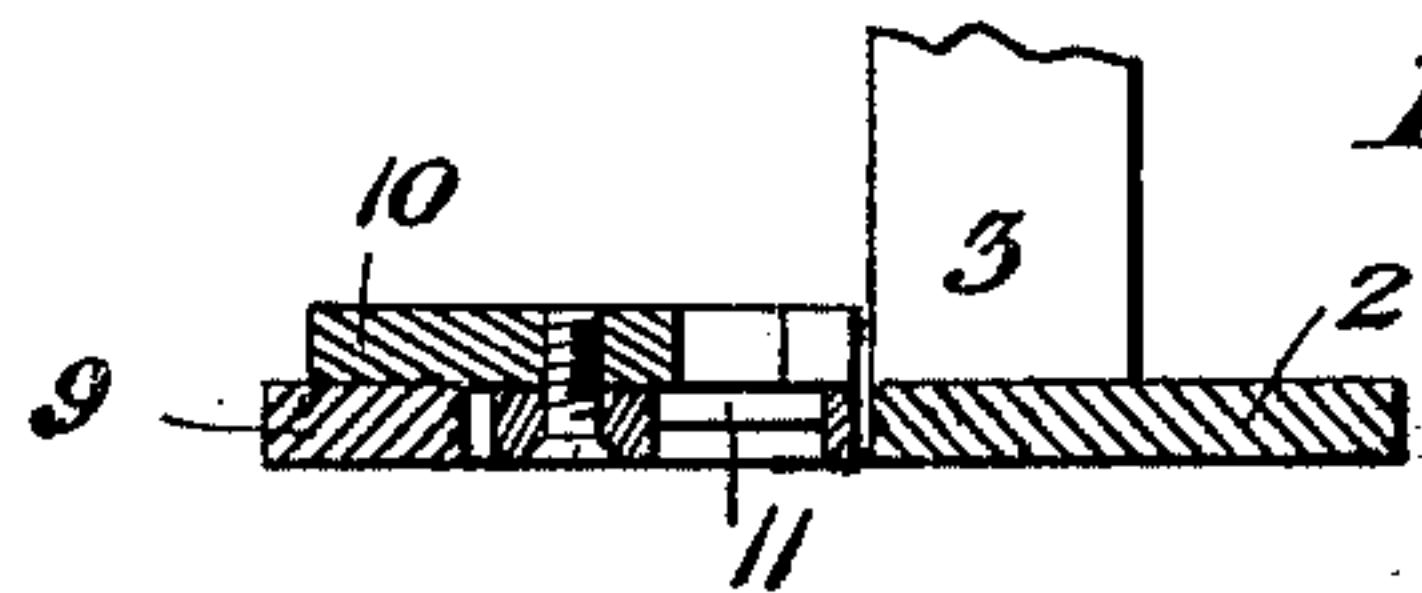


Fig. 9.

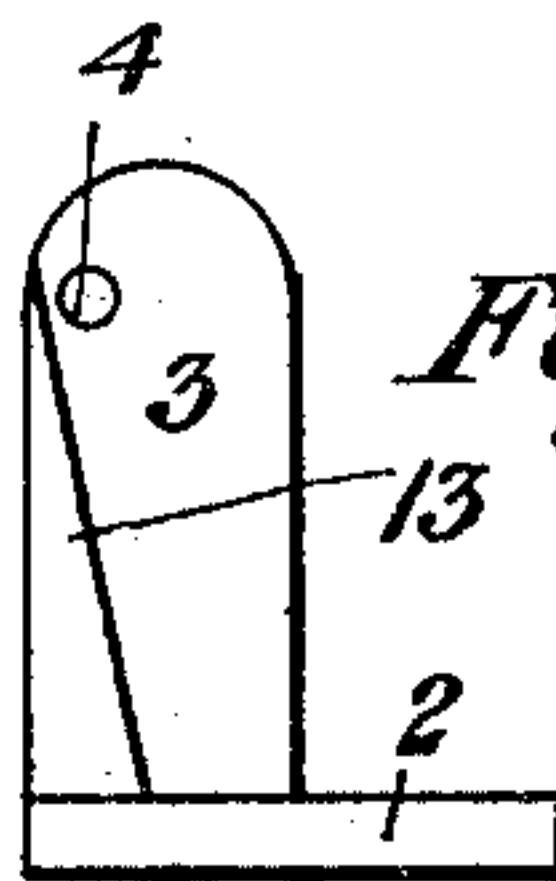


Witnesses:

*R. P. Elder.*

*C. C. Butterfield.*

Fig. 6.



Inventor:

*George W. Mackenzie*  
by *D. M. Clarke*  
his Attorney



# UNITED STATES PATENT OFFICE.

GEORGE W. MACKENZIE, OF BEAVER, PENNSYLVANIA, ASSIGNOR OF ONE-THIRD TO EDWARD J. ALLISON, OF SAME PLACE.

## SASH-LOCK.

SPECIFICATION forming part of Letters Patent No. 674,065, dated May 14, 1901.

Application filed January 26, 1899. Serial No. 703,458. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE W. MACKENZIE, a citizen of the United States, residing at Beaver, in the county of Beaver and State of Pennsylvania, have invented or discovered a new and useful Improvement in Sash-Locks, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this application, in which—

Figure 1 is a view in side elevation of my improved sash-lock, showing the parts applied to upper and lower sashes in a locking position. Fig. 2 is a similar view showing the action of locking upon lowering the sash. Fig. 3 shows the locking-dog withdrawn from operative position to permit of passage of the sashes. Fig. 4 is a plan view of Fig. 1. Fig. 5 is a perspective view illustrating a modified construction, wherein I employ a sliding plate adapted to engage and secure the parts together. Fig. 6 is a detail in side elevation illustrating the wedge faces on the locking-dog bearing. Fig. 7 is a detail plan view showing the sliding plate extended engaging the wedge extensions. Fig. 8 is a similar view showing the sliding plate retracted. Fig. 9 is a cross-section on the line IX IX of Fig. 8.

My invention consists of a device for securing the upper and lower sashes of a window together, permitting of a limited partial movement of either sash without unlocking and providing an efficient and reliable automatic lock adapted to lock the sashes even though they may not be entirely closed.

Referring to the drawings, 2 is the base of a double bearing 3 3, within which is pivotally mounted at 4 a locking-dog 5, having a series of notches 6, arranged semicircularly around one side, the opposite side being counterweighted by a square shoulder 7, which by gravity tends to throw the notched face of the dog forwardly and in the normal position shown in Fig. 1 rests squarely on the base 2 between the bearings 3. The dog is provided with an operating-button 8.

The base 2 is secured to the lower frame-bar of the upper sash, while upon the upper face of the lower sash is secured a shoe-plate 9, having a square edge adapted to engage the notches 6 in succession as the sash is low-

ered, the dog being pressed forward by gravity, due to the counterweight.

In the form shown in Fig. 5 I have placed a supplemental plate 10, having a sliding engagement with plate 9 by means of a dovetail retaining-button adapted to engage a slot 11 in plate 9, the plate 10 being provided with forwardly-projecting hooks 12, adapted to engage vertical wedge extensions 13, projecting out laterally from the sides of bearings 3, the upper extremities of such wedge extensions being rounded, so as to facilitate engagement by the hooks. The purpose of such construction is to cause one of the portions of the lock to embrace the other portion and bind both securely together, in addition to the locking action of the dog, and it will be seen when so in action the inner edge 14 of the sliding plate will be engaged by one of the notches 6. However, as in case when it is desired to shift the sashes without locking, the sliding plate may be drawn back, as in Fig. 8, when the hooks 12 will be out of alinement with the wedges 13. In such case also the dog is held back in an inoperative position by a pin 14, inserted through a hole in the dog.

The operation is as follows: Upon lowering the sash to which is attached the plate 9, usually the inner sash, the lower edge of the upper frame-bar will come into contact with the dog 5, throwing it backwardly, as in Fig. 2, so that upon the inner edge of the plate 9 falling below the pivotal bearing 4 and into range of the first notch or of the succeeding ones they will engage the edge of the plate at such or any of the successively-lower positions at which the additional notches will come into engagement, it being obvious that the entire weight of the dog will act to immediately throw it forward as the plate descends until when stationary one of the notches will securely engage and hold it. In the lowest position, as shown in Fig. 1, the plate is engaged by the base of the dog, the shoulder 7 resting on the base 2 and preventing further movement. It will be noticed that the angle of the bearing-faces of the various notches is such as to always squarely engage the edge of the bearing-plate 9 in whatever position the dog may be, and the number and size of these notches may be varied at pleasure.



When it is desired to raise the sash, the dog is thrown out of engagement by the button 8. When used with the sliding plate 10, such plate, as has been stated, acts both as a bearing for the dog and as a clamping device. When it is desired to operate the sashes, as in case of washing the windows, this sliding plate is withdrawn, and the dog is also held out of engagement by the pin 14.

10 The lock is extremely simple and efficient in construction and operation, entirely automatic, and not liable to get out of order, while being proof against opening from the outside by the insertion of a knife-blade or other implement. It may be changed or varied from 15 the construction shown in the drawings by the skilled mechanic without departing from my invention, and I do not desire to be limited to the exact construction shown and described, but to include all such changes as 20 embodied in the following claims.

What I claim is—

1. A sash-lock consisting of a base adapted to be secured to one sash of a window, bearings thereon supporting a pivotally-mounted

dog provided with a series of circumferentially-arranged notches disposed at varying angles, a counterbalancing-shoulder adapted to force the dog forward into engagement by gravity and to bear upon the base to prevent further travel and a plate slidingly mounted on the other sash adapted to engage the notches of the dog. 30

2. A sash-lock consisting of a base adapted to be secured to one sash of a window, bearings thereon provided with lateral wedge extensions, a dog pivotally mounted in the bearings having a series of circumferentially-arranged notches, a counterbalancing-shoulder adapted to bear upon the base, and a plate 40 slidingly mounted on the other sash adapted to engage the notches of the dog and provided with hooks adapted to engage the wedge extensions, substantially as set forth.

In testimony whereof I have hereunto set 45 my hand.

GEORGE W. MACKENZIE.

Witnesses:

PETER J. EDWARDS,  
C. M. CLARKE.