

(No Model.)

W. A. MARTIN.  
LOCK.

No. 407,738.

Patented July 23, 1889.

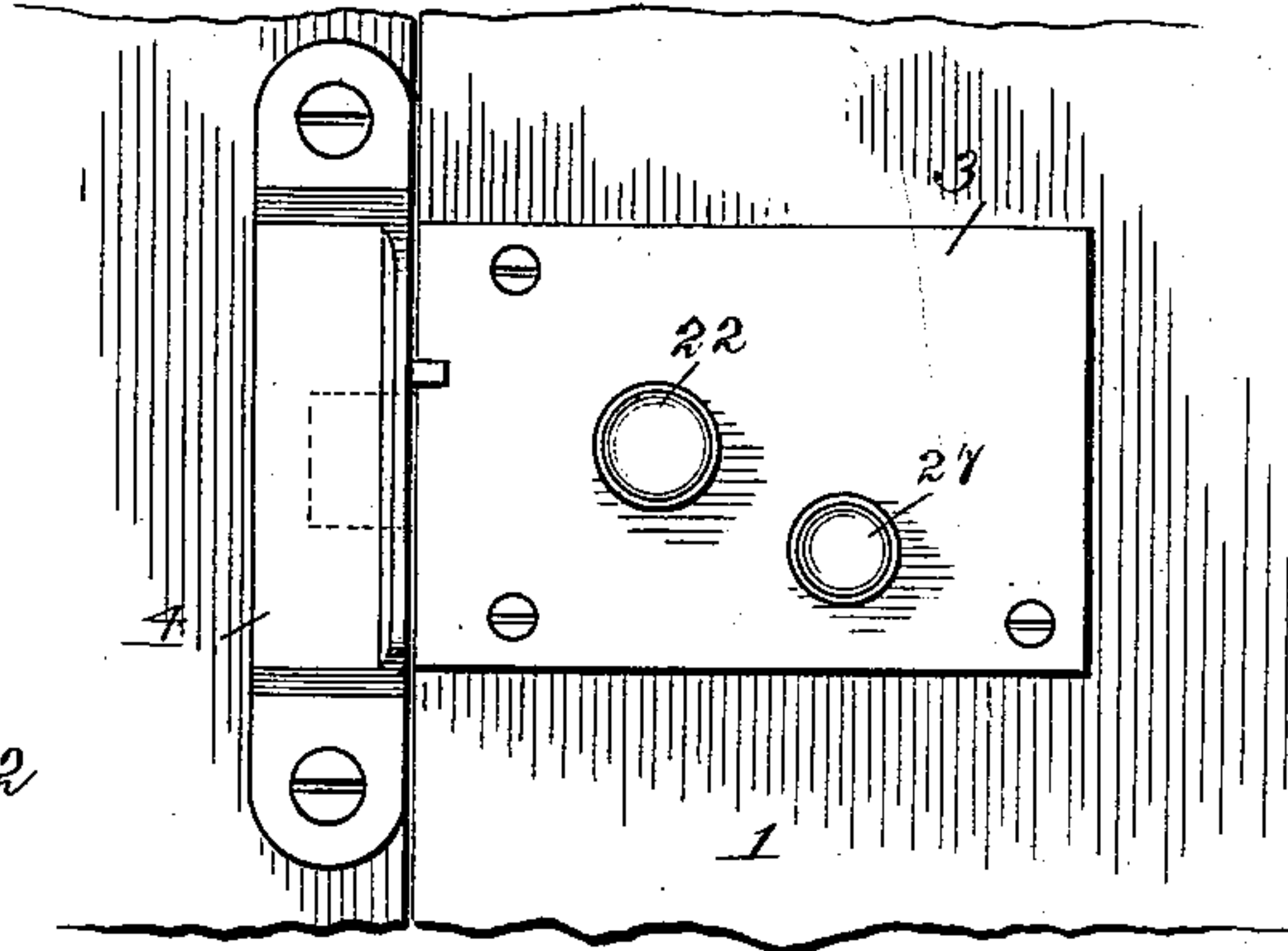


Fig. 1.

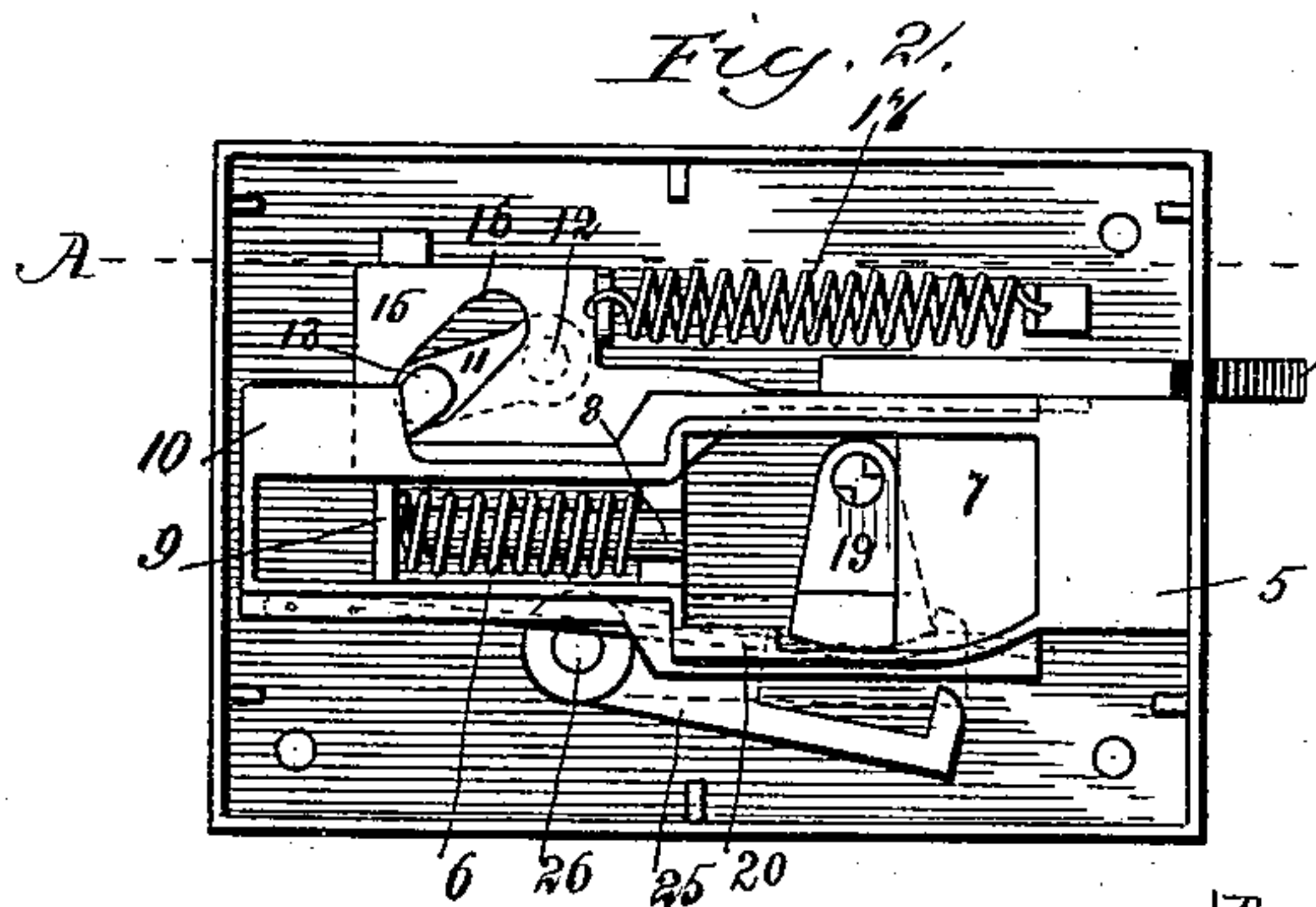


Fig. 2.

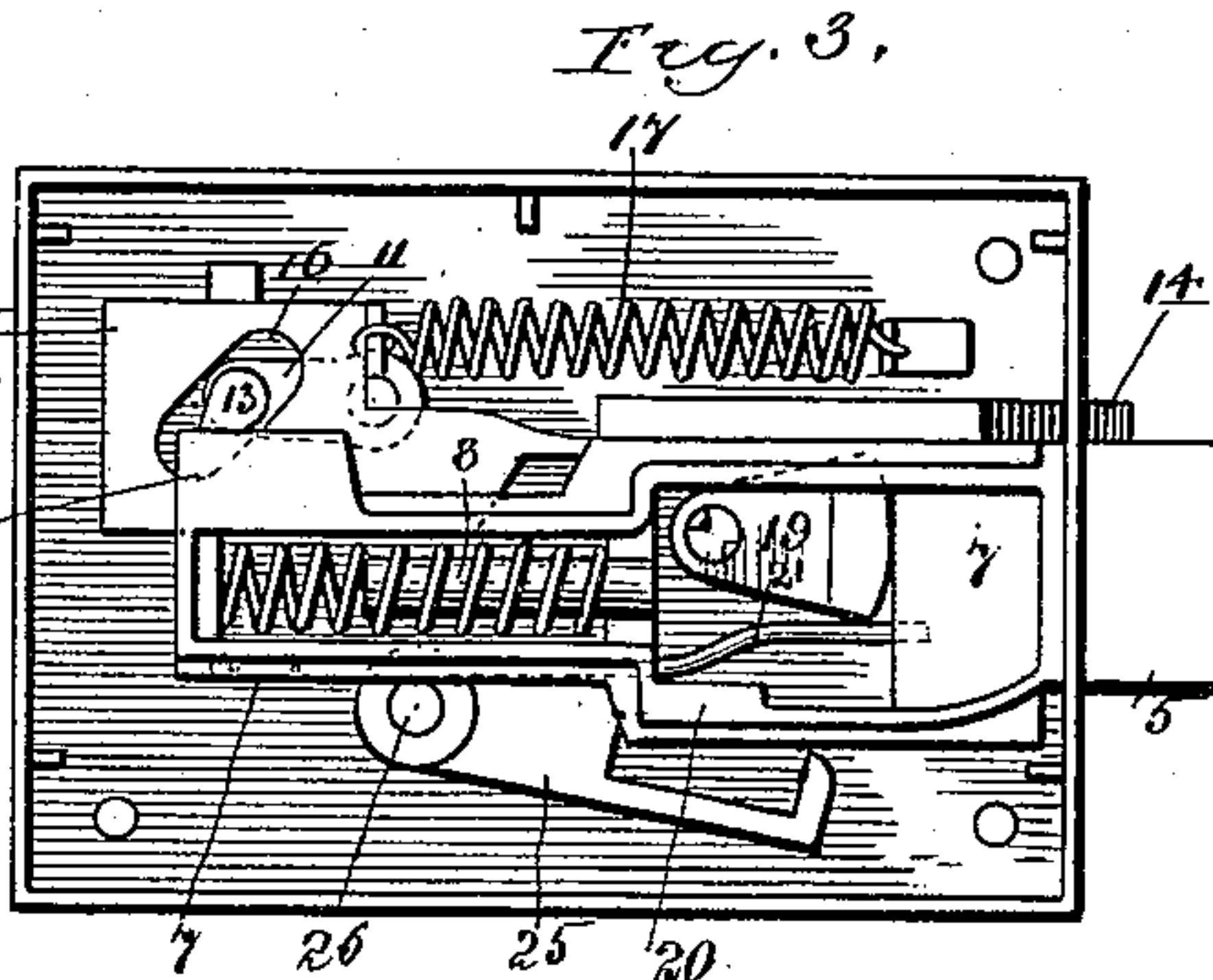


Fig. 3.

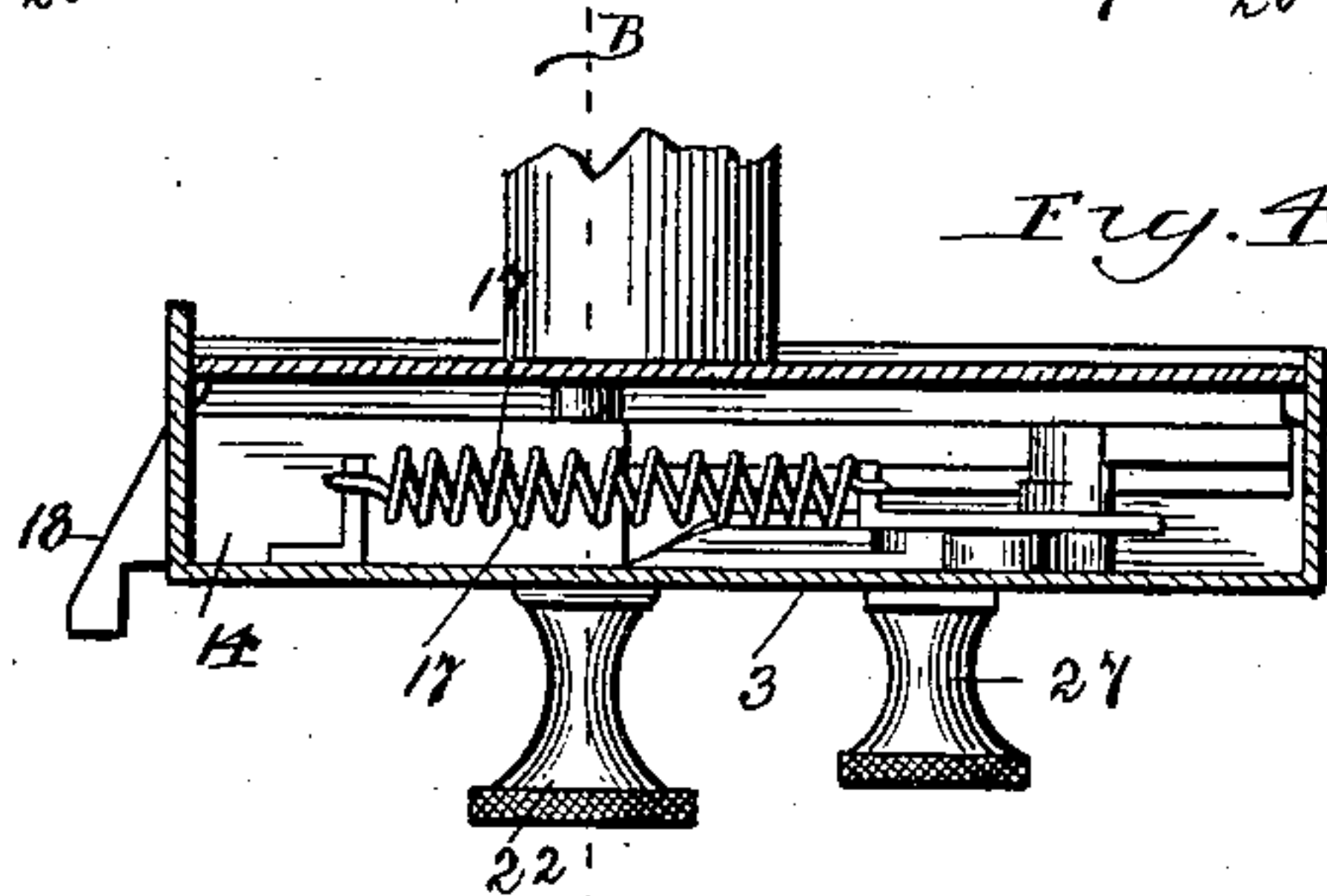


Fig. 4.

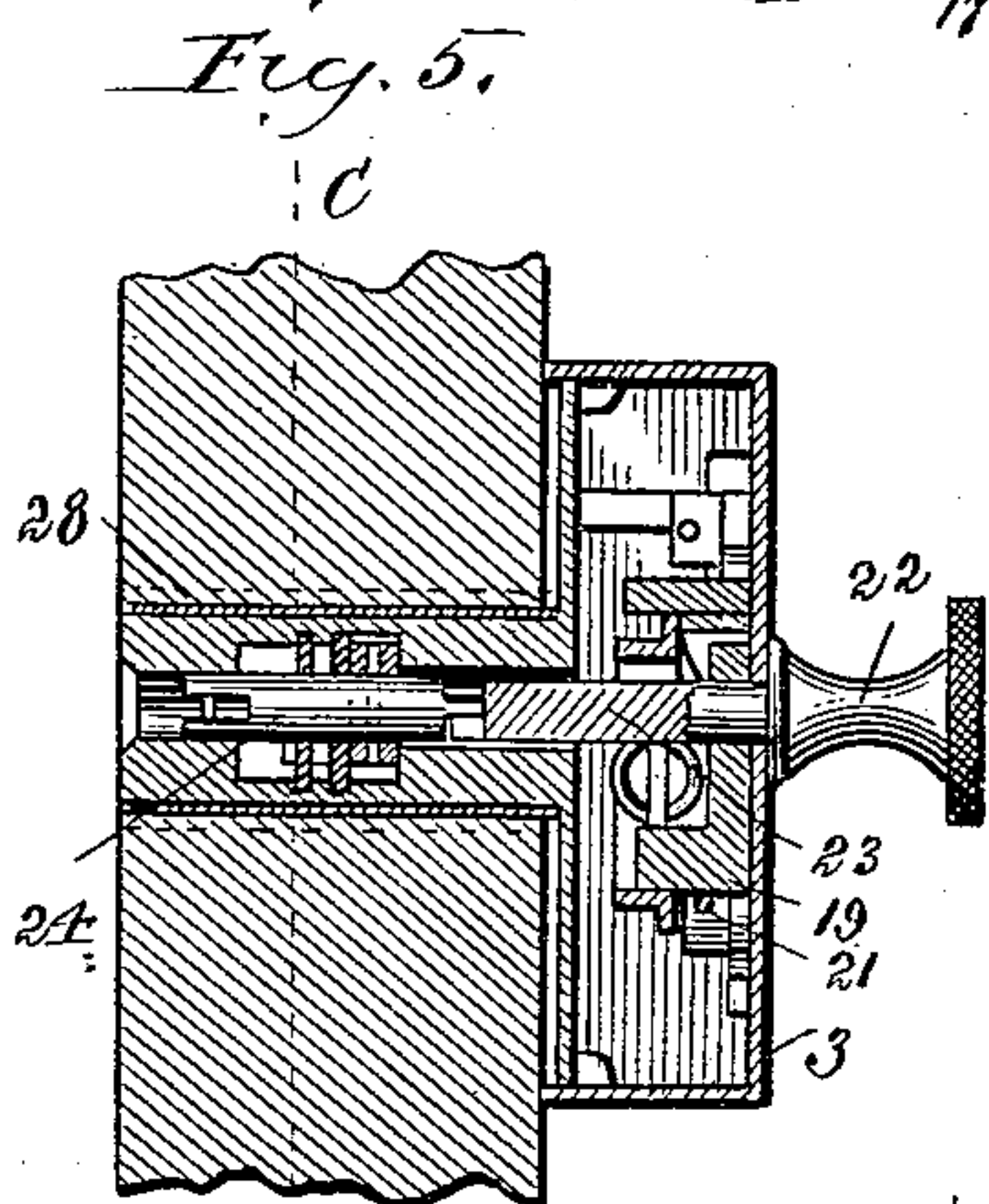


Fig. 5.

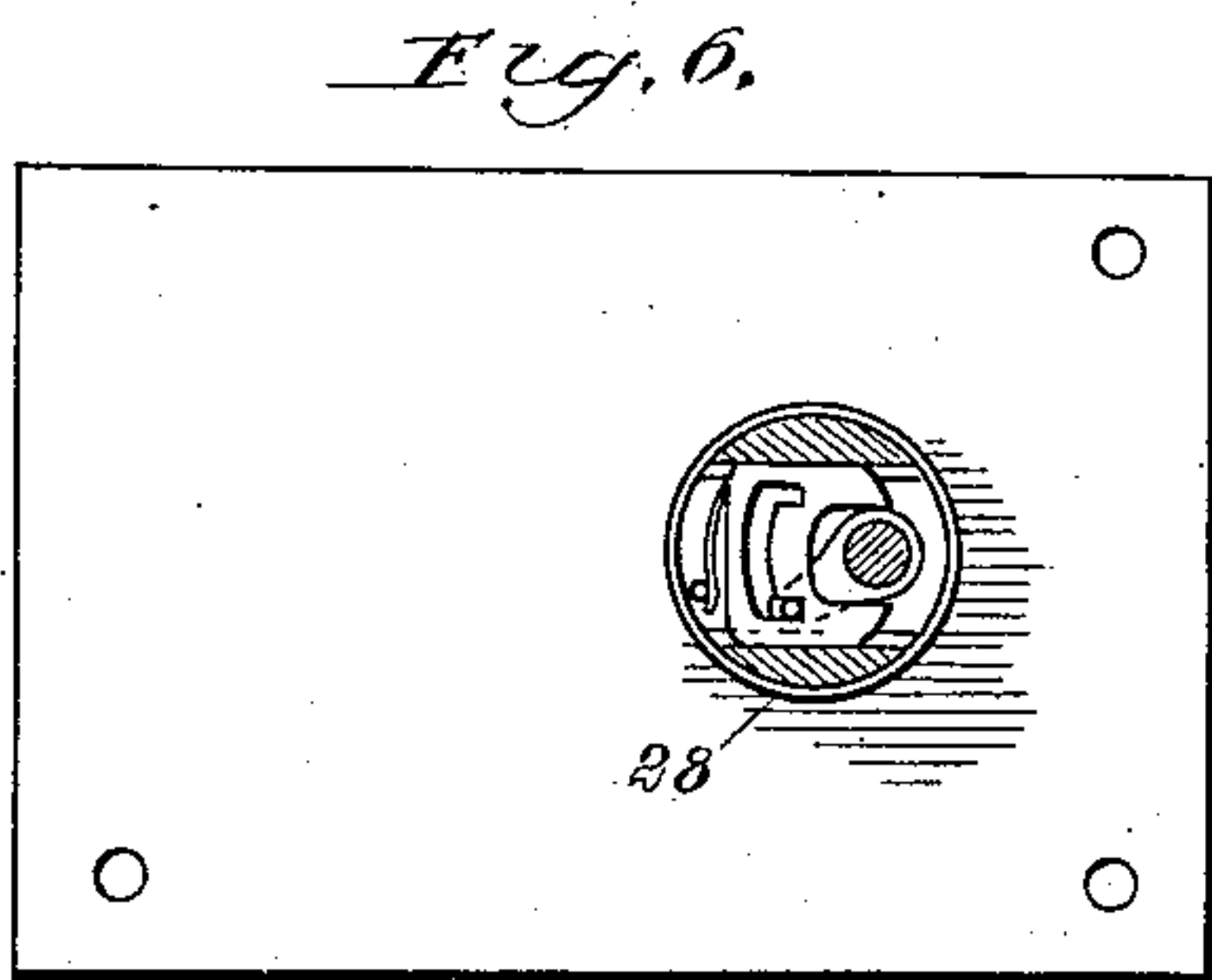


Fig. 6.

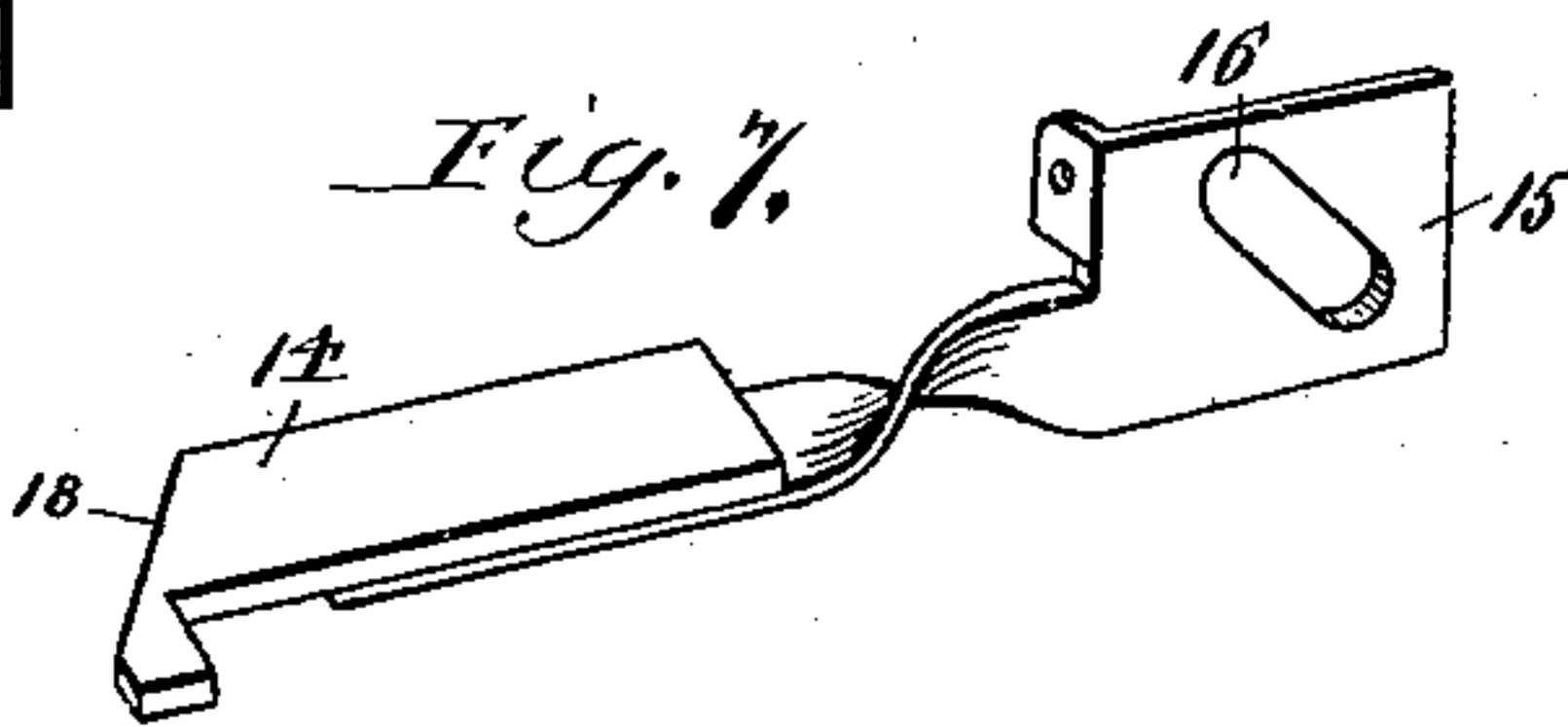


Fig. 7.

Witnesses  
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# UNITED STATES PATENT OFFICE.

WASHINGTON A. MARTIN, OF CHICAGO, ILLINOIS, ASSIGNOR OF ONE-FOURTH  
TO HENRY REUTER, OF SAME PLACE.

## LOCK.

SPECIFICATION forming part of Letters Patent No. 407,738, dated July 23, 1889.

Application filed March 6, 1889. Serial No. 302,161. (No model.)

*To all whom it may concern:*

Be it known that I, WASHINGTON A. MARTIN, of the city of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Locks and Latches, of which the following is a specification.

In order to enable others skilled in the art to which my invention pertains to make and use the same, I will now proceed to describe it.

In the ordinary latch which automatically enters into engagement when the door is closed the bolt is beveled, so as to be thrown back by the closing of the door, or else there is a pivoted piece which is thus swung back and throws back the bolt at the same time. In either of these constructions the bolt can be thrown back and the door unlatched by forcing in a thin knife-blade or other instrument. By my invention I overcome this objection, and I do this by using a square bolt, which is normally withdrawn when the door is open and is automatically tripped by the closing of the door; and my invention consists in that arrangement and in certain other devices or combinations, as specified in the claims at the end hereof.

In the accompanying drawings I have represented a latch and lock containing my invention.

In the drawings, Figure 1 is an elevation showing a part of a closed door and its jamb with the complete device applied. Fig. 2 is an elevation of the lock and latch with the bolt drawn back, the covering-plate having been removed to show the interior parts. Fig. 3 is the same, but with the bolt projected. Fig. 4 is a section through A A, Fig. 2. Fig. 5 is a section through B B, Fig. 4. Fig. 6 is a section through C C, Fig. 5. Fig. 7 is a view of the trigger for tripping the bolt.

In the accompanying drawings, 1 is a door.

2 is the jamb.

3 is the casing of the lock and latch.

4 is the socket secured to the jamb, with which the bolt engages.

5 is the bolt.

6 is a spring to shoot the bolt.

7 is a yoke constituting that portion of the bolt within the case.

8 is a stem to hold spring 6 in place.

9 is a lug on the case against which spring 6 bears. The spring thus tends to force the bolt outward.

10 is a lug on the yoke 7.

11 is an arm pivoted in the case at 12.

13 is a pin or dog on the free end of arm 11. By the swinging of the arm pin 13 is caused to engage lug 10, and thus lock the bolt back.

14 is the trigger. Its back end is flattened into a sliding plate 15, and is provided with a diagonal slot 16, through which pin 13 projects.

17 is a spring which throws the trigger in the position shown in Fig. 2, and thereby throws the dog into engagement with lug 10.

The projecting end of the trigger is beveled, as shown at 18. Thus, the parts being in the position shown in Fig. 2, if the door be closed the trigger is forced back, and thereby moves pin 13 out of engagement with lug 10, and the bolt is projected by spring 6 and locks the door.

19 is a cam within yoke 7, which may be turned to force back the bolt and unlock the door. For this purpose the cam engages a shoulder 20 on the yoke 7. When the bolt is projected, a spring 21 throws the cam to the position shown in Fig. 3 and locks the bolt in that position.

22 is a knob by which the cam 19 is turned.

23 is the cam pivot or arbor, to one end of which knob the spring 21 is attached. The end of the arbor 22 opposite the knob is forked to engage a shank 24 of a Yale or any other suitable lock 28 operated by a key.

25 is a hook pivoted at 26, which hooks over cam 19, as indicated in Fig. 2, and thereby retains the bolt in its retracted position.

27 is a knob for operating the hook 25.

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

1. The combination, substantially as set forth, of the bolt provided with a lug, as 10, the swinging pin or dog to engage said lug

and to hold the bolt back, and the trigger provided with an oblique slot, as 16, to throw the dog and release the bolt.

2. The combination, substantially as set forth, of the bolt, the dog, the trigger, the cam to retract the bolt, the cam-arbor having a forked end, and a key-operated lock, as 28, in engagement with said cam-arbor, all arranged and operating substantially as shown and described.

In testimony whereof I have hereunto set my hand and affixed my seal, at Chicago, Illinois, this 2d day of March, 1889.

WASHINGTON A. MARTIN. [L. S.]

In presence of—

DANL. A. RAY,

CHAS. C. TILLMAN.