

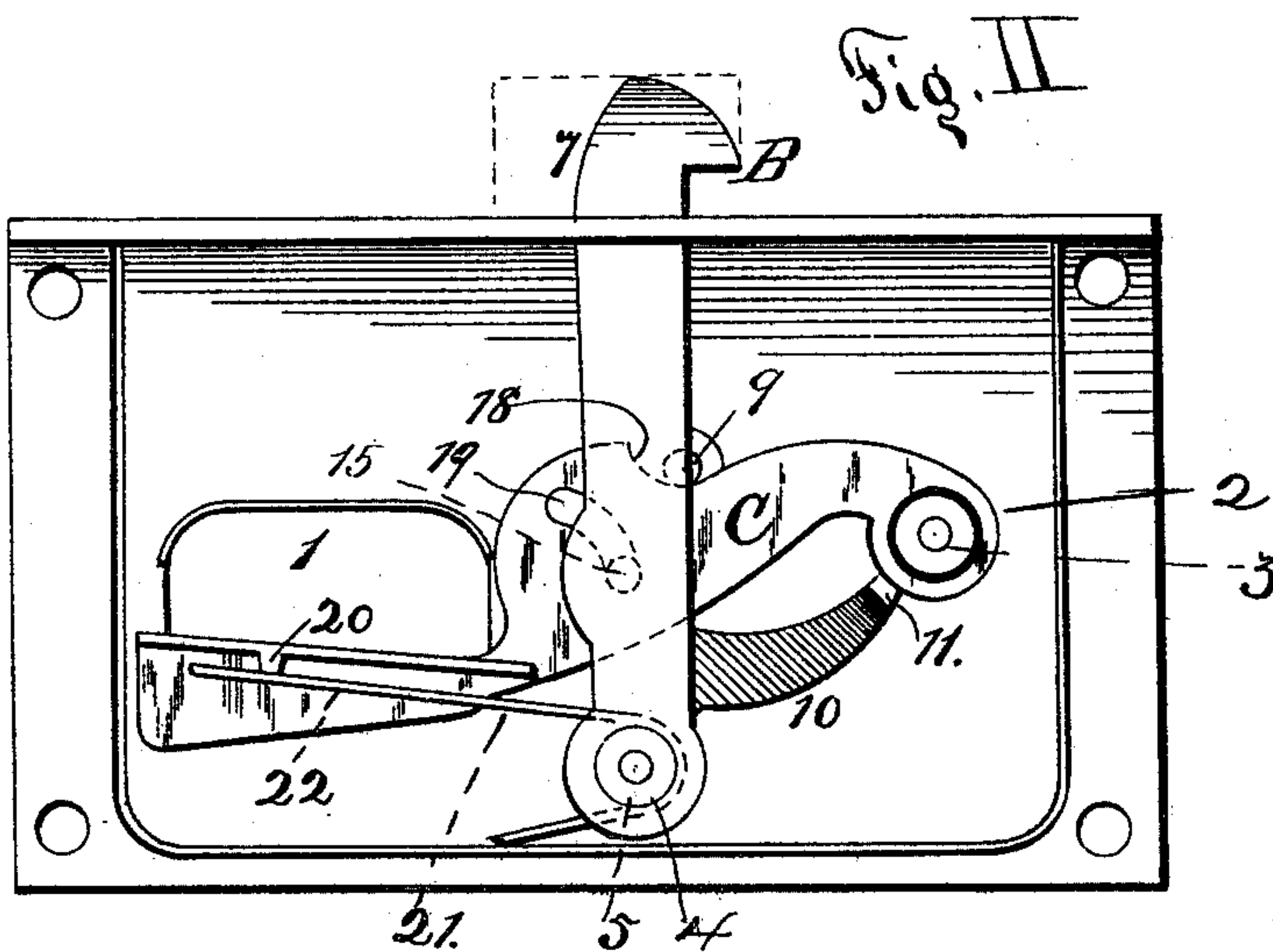
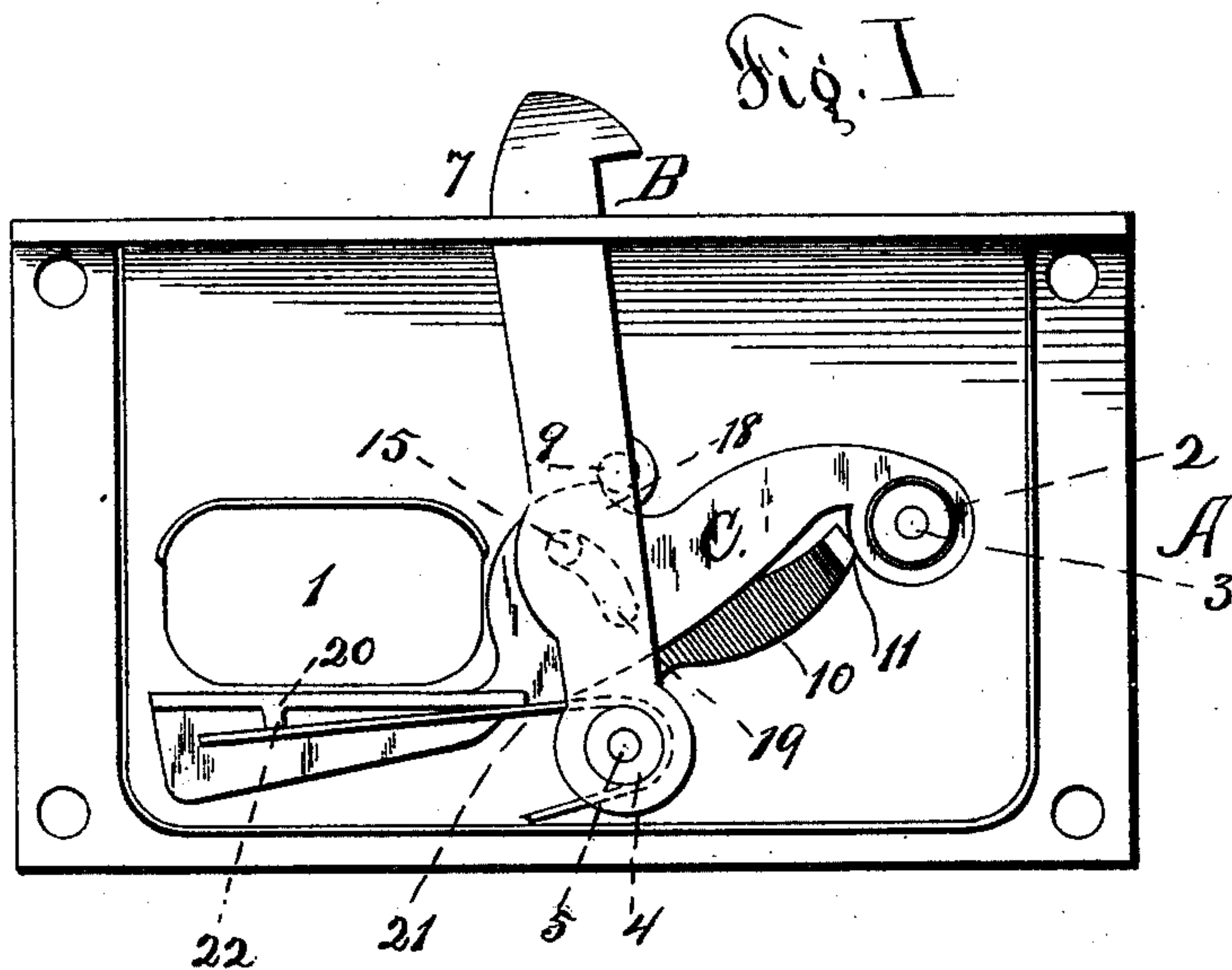
(Model.)

2 Sheets—Sheet 1.

O. SEELY.
DOOR LOCK.

No. 414,333.

Patented Nov. 5, 1889.



Witnesses

Howard P. Denbow
Frank D. Enney

Obadiah Seely Inventor
By his Attorneys
Smith & Denison.

(Model.)

2 Sheets—Sheet 2.

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Fig. 5.

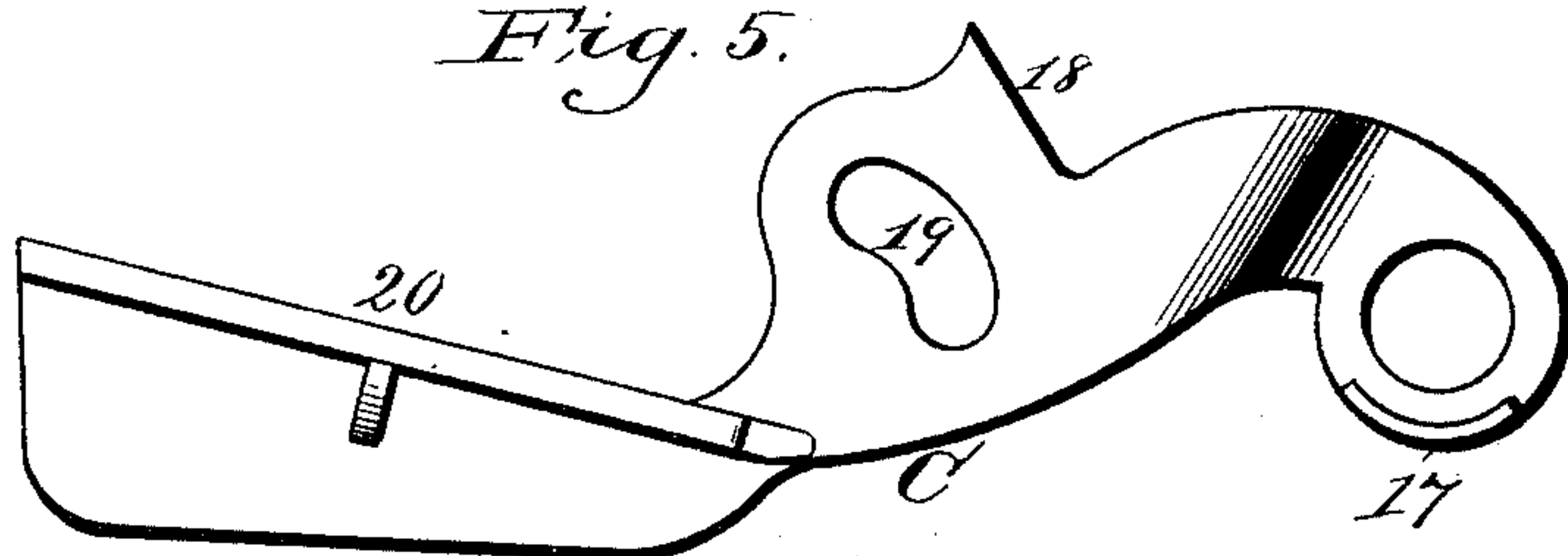


Fig. 3.

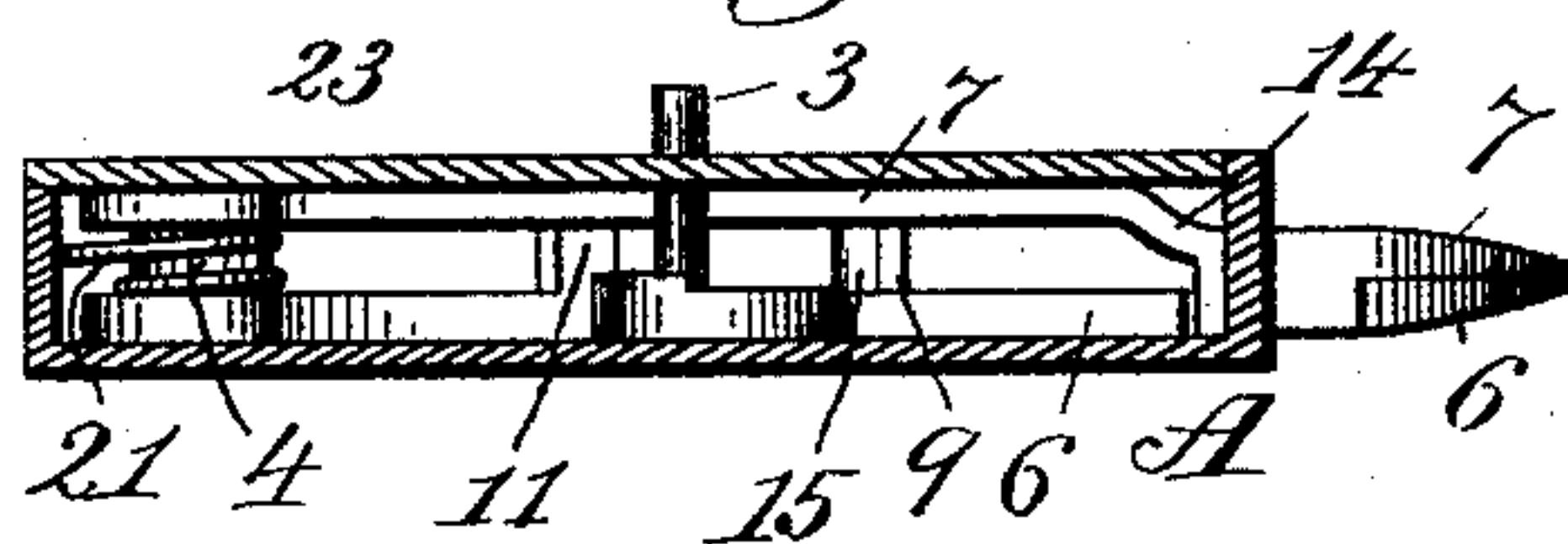


Fig. 4.

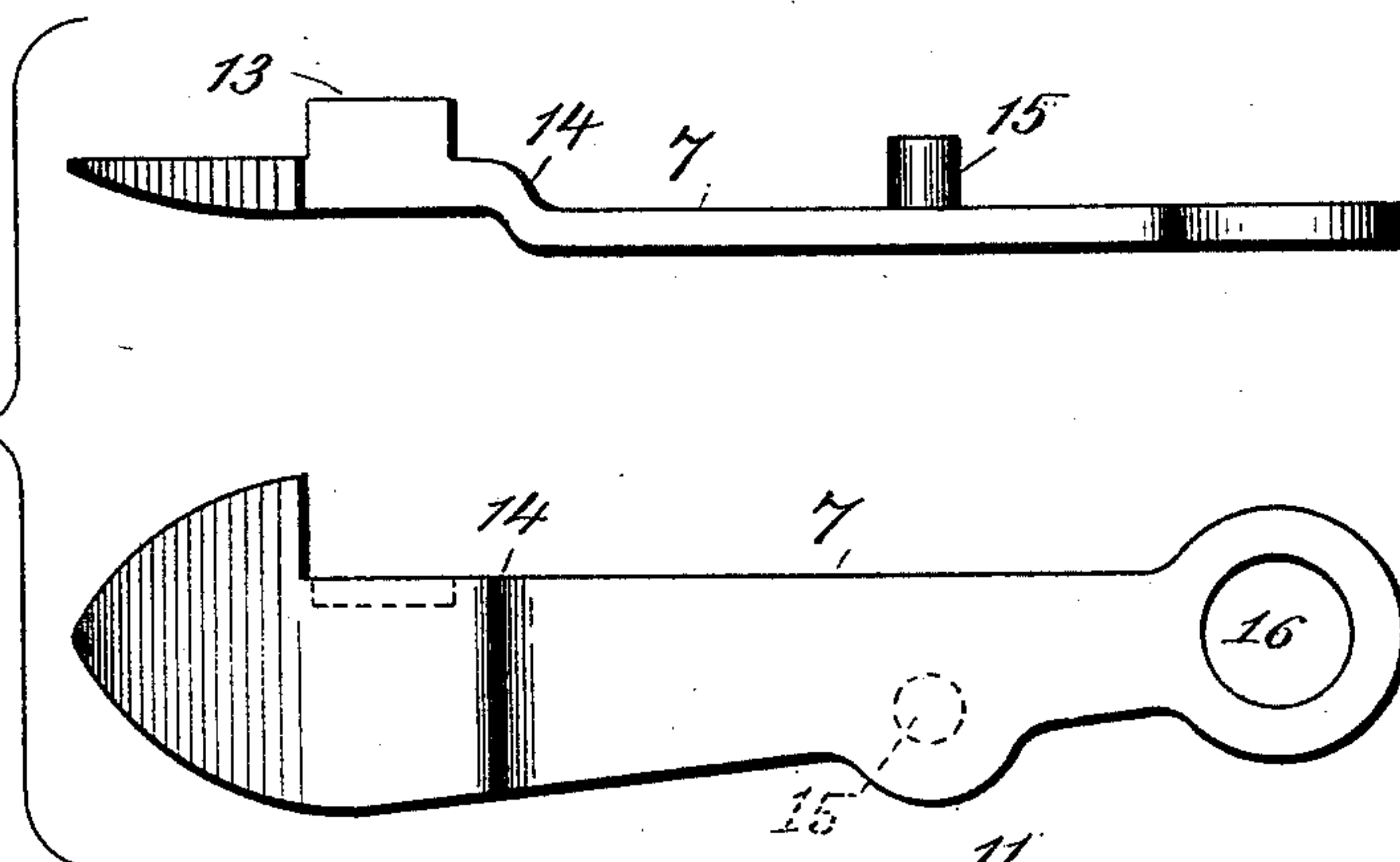


Fig. 6.

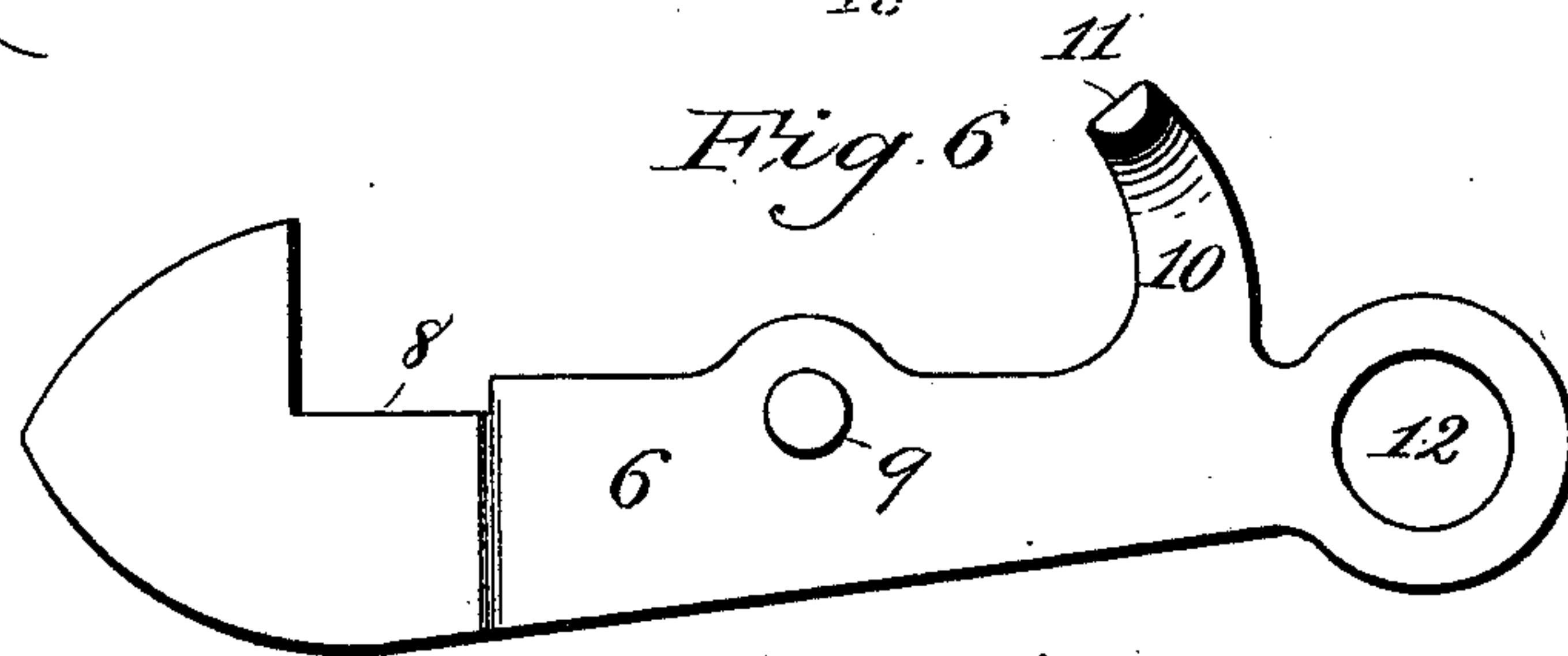
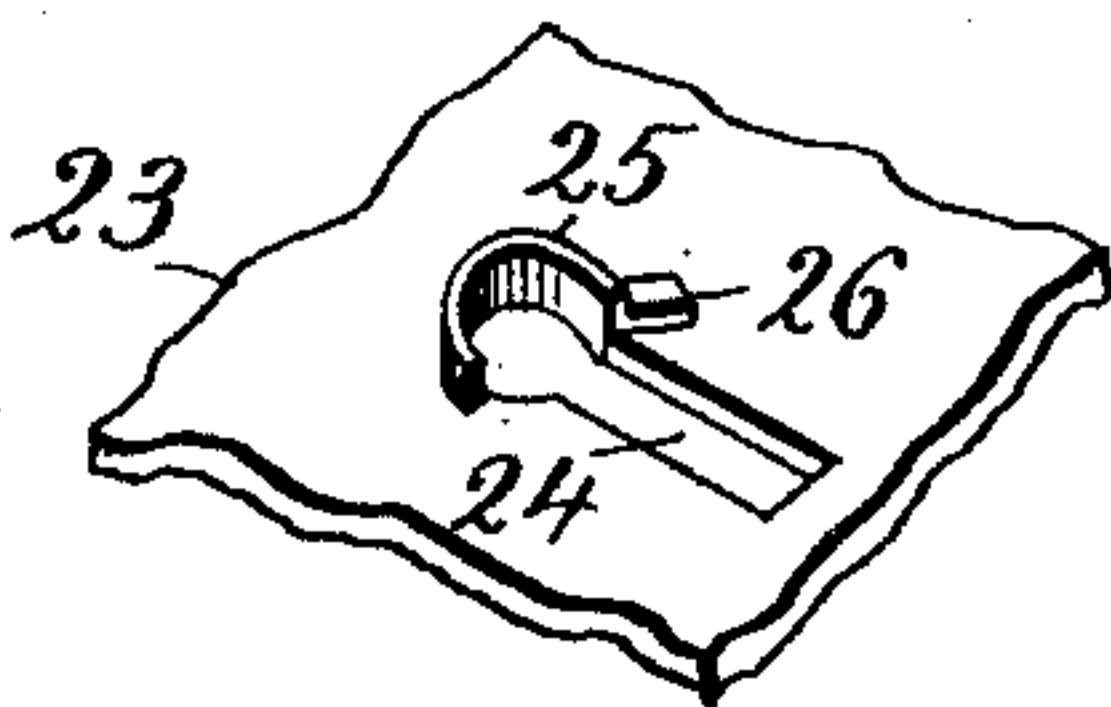


Fig. 7.



Witnesses:

Edward Knapp.

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Inventor:

Obadiah Seely
By his attorney

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UNITED STATES PATENT OFFICE.

OBADIAH SEELY, OF SYRACUSE, NEW YORK.

DOOR-LOCK.

SPECIFICATION forming part of Letters Patent No. 414,333, dated November 5, 1889.

Application filed November 16, 1888. Serial No. 291,010. (Model.)

To all whom it may concern:

Be it known that I, OBADIAH SEELY, of Syracuse, county of Onondaga, in the State of New York, a citizen of the United States, have invented certain new and useful Improvements in Sliding-Door Locks, of which the following is a specification, reference being had to the accompanying drawings, in which—

Figure 1 is a top plan view thereof unlocked. Fig. 2 is a like view of same locked, the dotted lines indicating the travel of the bolt. Fig. 3 is a vertical sectional elevation on the left side of the bolt; Fig. 4, top plan and edge views of one section of the bolt. Fig. 5 is a plan view of the hand-lever. Fig. 6 is a plan of the lower bolt-section. Fig. 7 is a plan of a part of the inner face of the cap or cover of the lock-case adjacent to the key-hole.

My invention relates to locks for sliding doors which lock by means of a spring-actuated hook adapted to move vertically by the turning of the key or by the pressure of the hand upon a lever accessible from the outside of the lock.

The object of my invention is to furnish what is known as a "spring-lock" which can be unlocked from the inside by means of a hand-lever accessible through the lock-case, and which can be unlocked from the outside by a key, and in no other way, at the same time so constructing it that the same cannot be picked from the outside by the insertion of a knife-blade into the crack of the door.

My invention consists in the several novel features of construction and operation hereinafter described, and which are specifically set forth in the claims hereto annexed.

It is constructed as follows: A is the lock-case, of ordinary form, and, as shown in the drawings, adapted to be let into the stile of the door and secured by screws through the flanges both to the edge of the stile and to the face of it and provided with the hand-hole 1 through its outer face, and also provided with a mortise through which the locking-bolt passes and further, provided with a stud 2, from which rises the key-pintle 3, and further provided with another stud 4, upon which the bolt-sections are pivoted, and which stud is provided with a screw-hole 5 to receive the screw which holds the cap upon the case.

B is the locking-bolt, constructed in two parts or sections longitudinally 6 7. The bolt-section 6, which is the outer one, is provided with the hook upon its outer end, with a recess 8 in the edge adjacent to the hook, with a stud 9 near the longitudinal center, with an arm 10 provided at its outer end with a stud 11, and with a hole 12 in its inner end to adapt it to fit loosely upon the stud 4, the arm 10 projecting downward to a point adjacent to the stud 2. The upper bolt-section is constructed with a hook upon its outer end, with a flange 13 projecting into the recess 8 in the bolt-section 6, with a bend 14 to throw the hook-sections together, with a stud 15 intermediate between the bend and the inner end of the section, and with a hole 16 to adapt it to fit loosely upon the stud 4.

C is the hand-lever, the lower end of which fits over the stud 2 loosely, and is provided with a flange 17 vertical upon its inner edge. This end of the lever fits against the case adjacent to this hole, and just beyond the sweep of the key upon the pintle 3 it arches upward to throw it above the bolt-section 6 or between bolt-sections 6 and 7, and in its outer edge is provided with a shoulder 18 and adjacent thereto with a slotway 19, and terminates at its upper end with the handle 20.

When put together in proper position, the stud 9 fits against the shoulder 18 and the stud 15 fits in the slotway 19, and the stud 11 is close enough to the key-pintle to be struck by the outer end of the key-arm when the key is turned upon the pintle.

21 is a spring coiled around the stud 4 and having one end bearing against the inner side of the lock-case and the other bearing against a stud 22 upon the handle 20. This spring holds all the working parts in proper relation to each other and throws the hooked ends of the bolt-sections down to the locking position.

It is operated as follows with a key: When the bit of the key strikes against the stud 11 and throws it outwardly, swinging the bolt-section 6 upon the stud 4 and throwing the point vertically, the stud 9, impinging against the shoulder 18, swings the lever C upon its pivot, the stud 2, and the stud 15, riding in the slotway 19, throws the upper bolt-section 7 vertically upon the pivot, and as the movement of the key continues both hooks are

lifted clear from the catch with which they are engaged, and when the key is removed the spring 21 throws the parts back from the position shown in Fig. 1 to that shown in Fig.

5 2. To open the door by the hand-lever C, the handle 20 is pushed inward by the fingers inserted through the opening 1, the lever swings upon this pivot, and the bolt-sections are swung upon their pivot in the same manner as when a key is used. The beveled points
10 of the bolt-sections operate to slide the bolt-sections over the catch in the ordinary manner. Upon the inner face of the cap-plate 23 and around a portion of the circular part of
15 the key-hole 24 is the inward flange 25, to which fits a slotway across the bit of the key, and 26 is a stud projection adjacent to this flange, which fits into another slotway in the key, and this flange and stud, in conjunction
20 with the flange 17 upon the lever C, make the lock difficult to pick.

It will be observed that by the use of the longitudinally-sectional bolt, one of the sections being provided with a flange 13, this
25 flange operates in the first place as a stop to the downward throw of the other bolt-section, and, further, it will be seen that this bolt cannot be lifted by picking, for the reason that it is impossible to lift both bolt-sections at once without the section 6 is first
30 started a short distance in order to start the operations of the stud 9 in the slotway 19, and it will be further observed that when the bolt is lifted or unlocked by means of the lever C by hand the flange 13 operates to lift
35 the other bolt-section.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The combination, with the lever C, pivotally mounted upon a stud upon the lock-plate, of a locking-bolt composed of two sections pivoted upon a stud upon the lock-plate and engaging with the lever, one of the bolt-sections having an arm on one side adapted to engage with a key, substantially as described. 40 45

2. In a lock, a locking-bolt composed of two sectional parts pivotally mounted, one part having an arm and stud to engage with the key, a stud engaging with a shoulder upon the lever and having a recess adjacent to the front end, and the other section being provided with a stud engaging with a slotway in the lever and having a flange engaging with the recess in the other bolt-section, and a lever
55 pivotally mounted upon the key-stud and provided with a shoulder to encounter the stud upon one bolt-section, and a slotway engaging a stud upon the other bolt-section, in combination, substantially as described. 60

3. The combination, with the lever C, pivotally mounted upon a stud on the lock-plate, of the bolt-section 6, engaging with the bolt-section 7, and the bolt-section 7, engaging with the lever C, and the arm 10 on the section 6, adapted to engage with the key, and a spring 21, engaging with the lever, substantially as described. 65

In witness whereof I have hereunto set my hand this 10th day of November, 1888.

OBADIAH SEELY.

In presence of—

HOWARD P. DENISON,
C. W. SMITH.