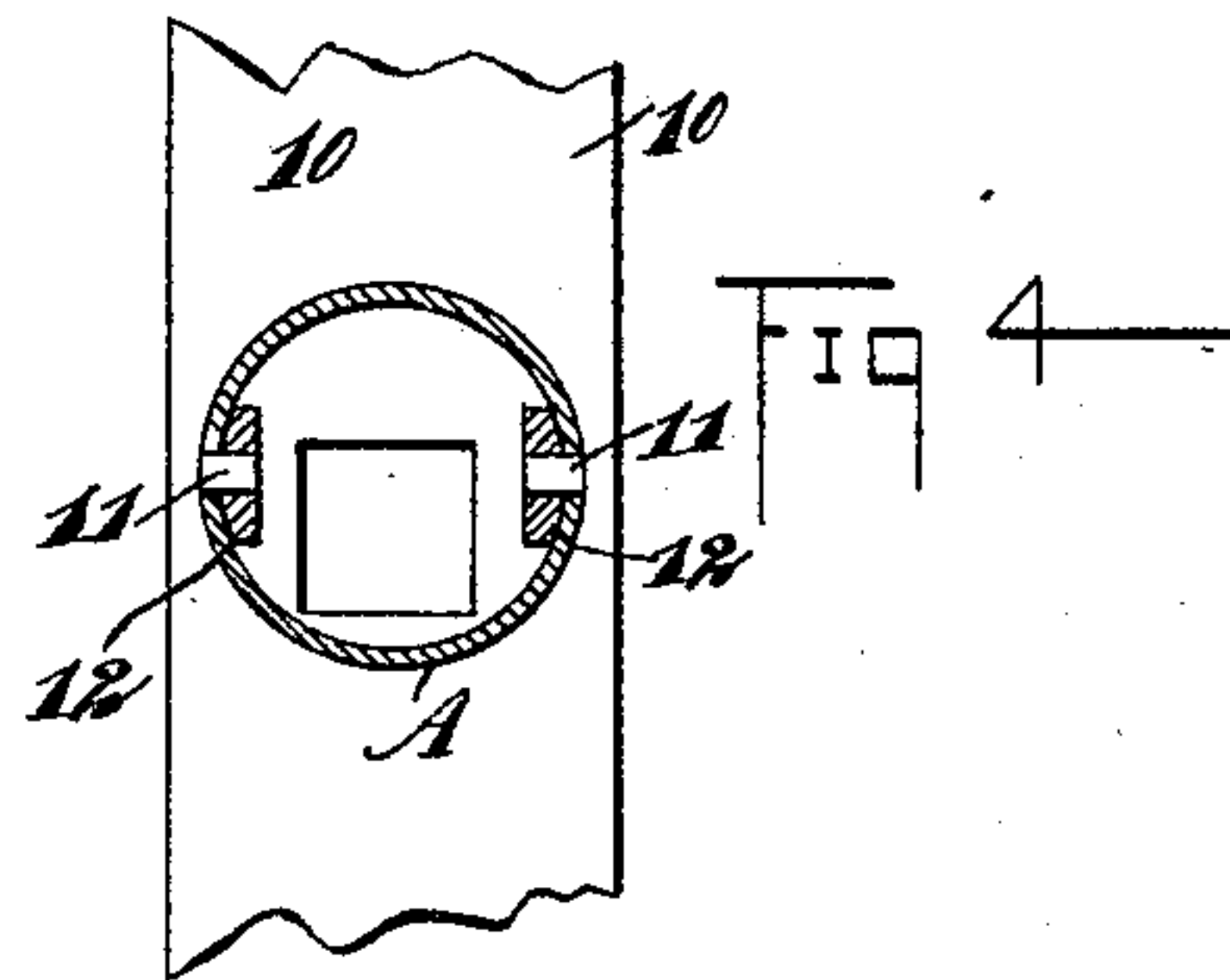
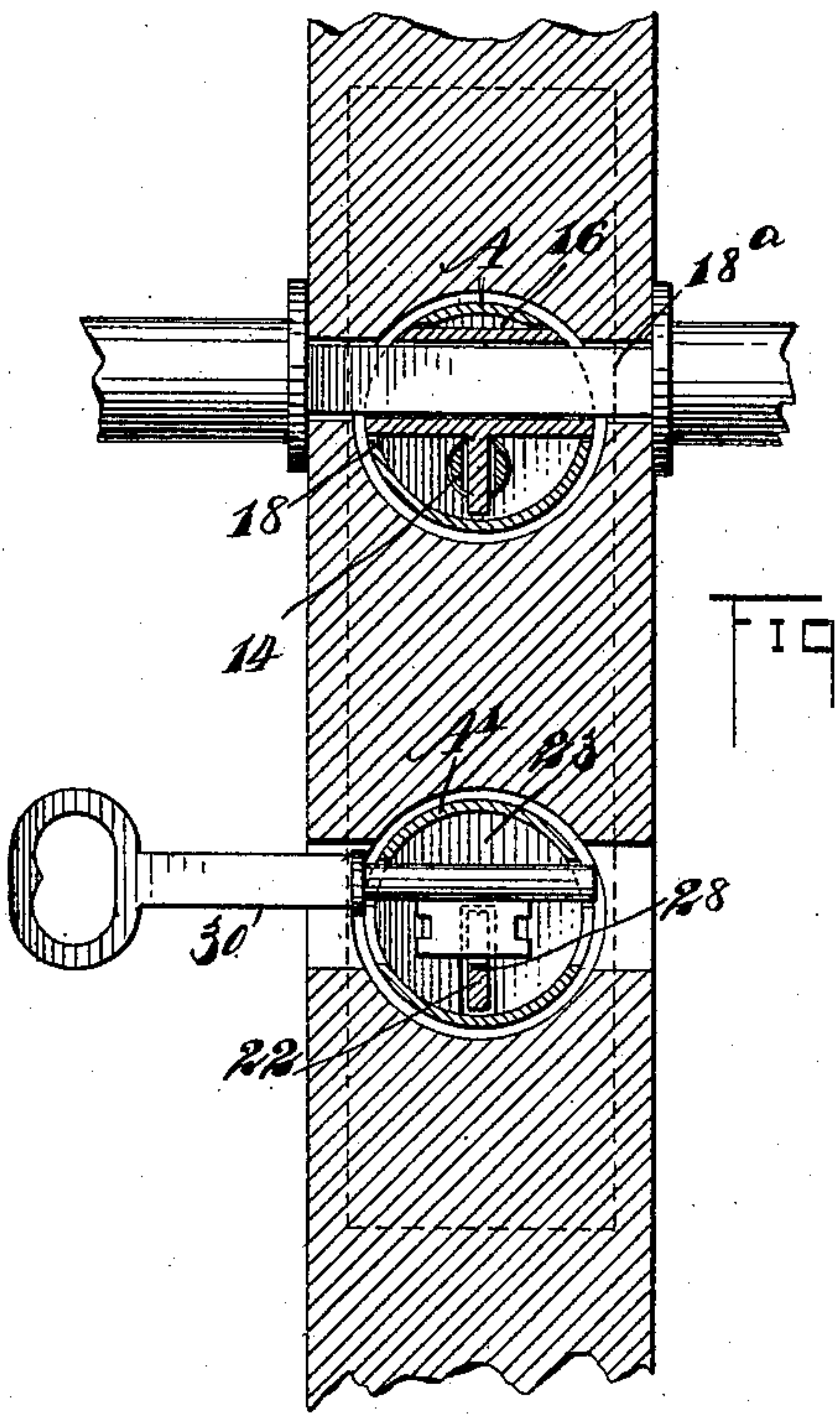
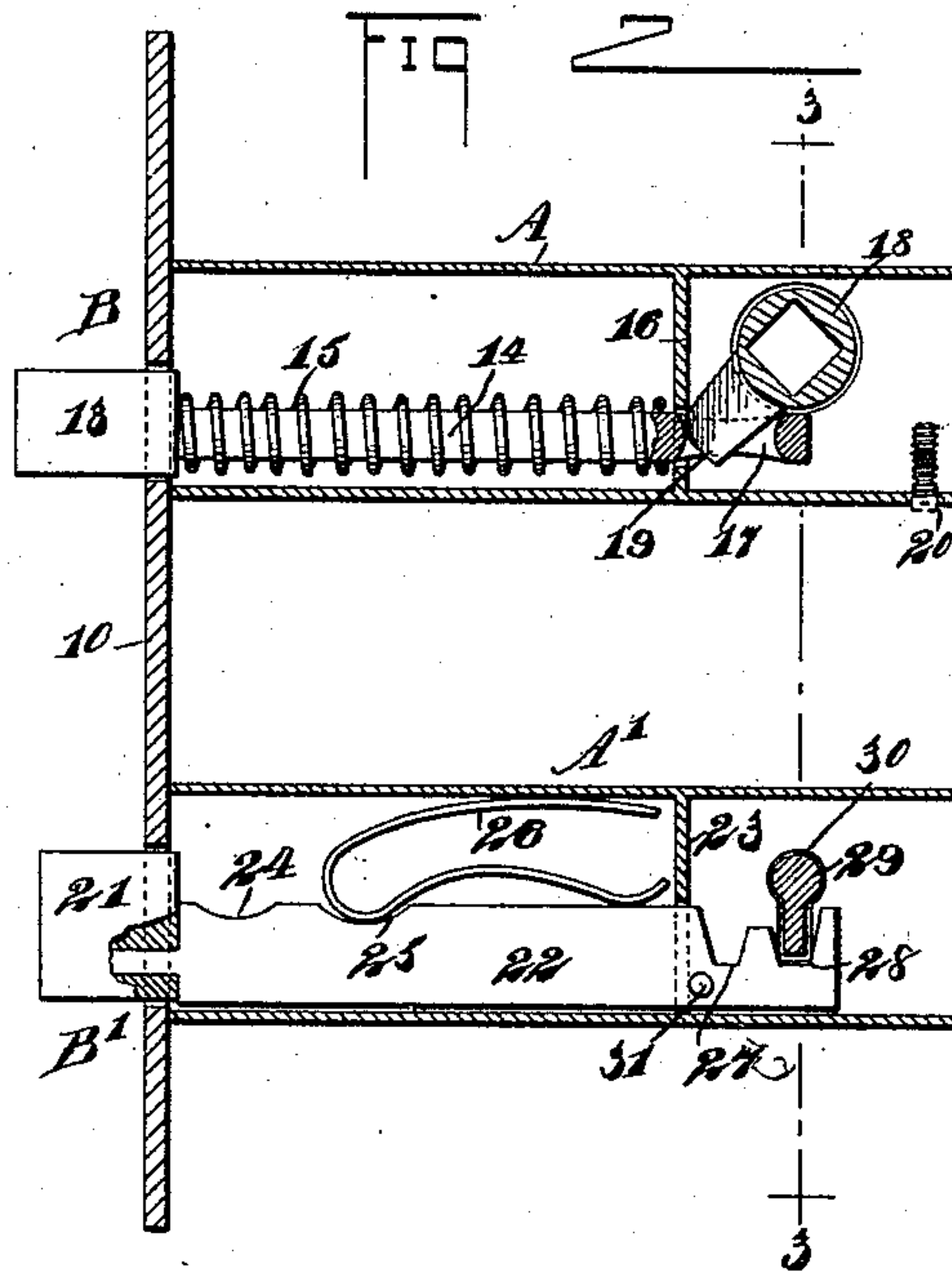
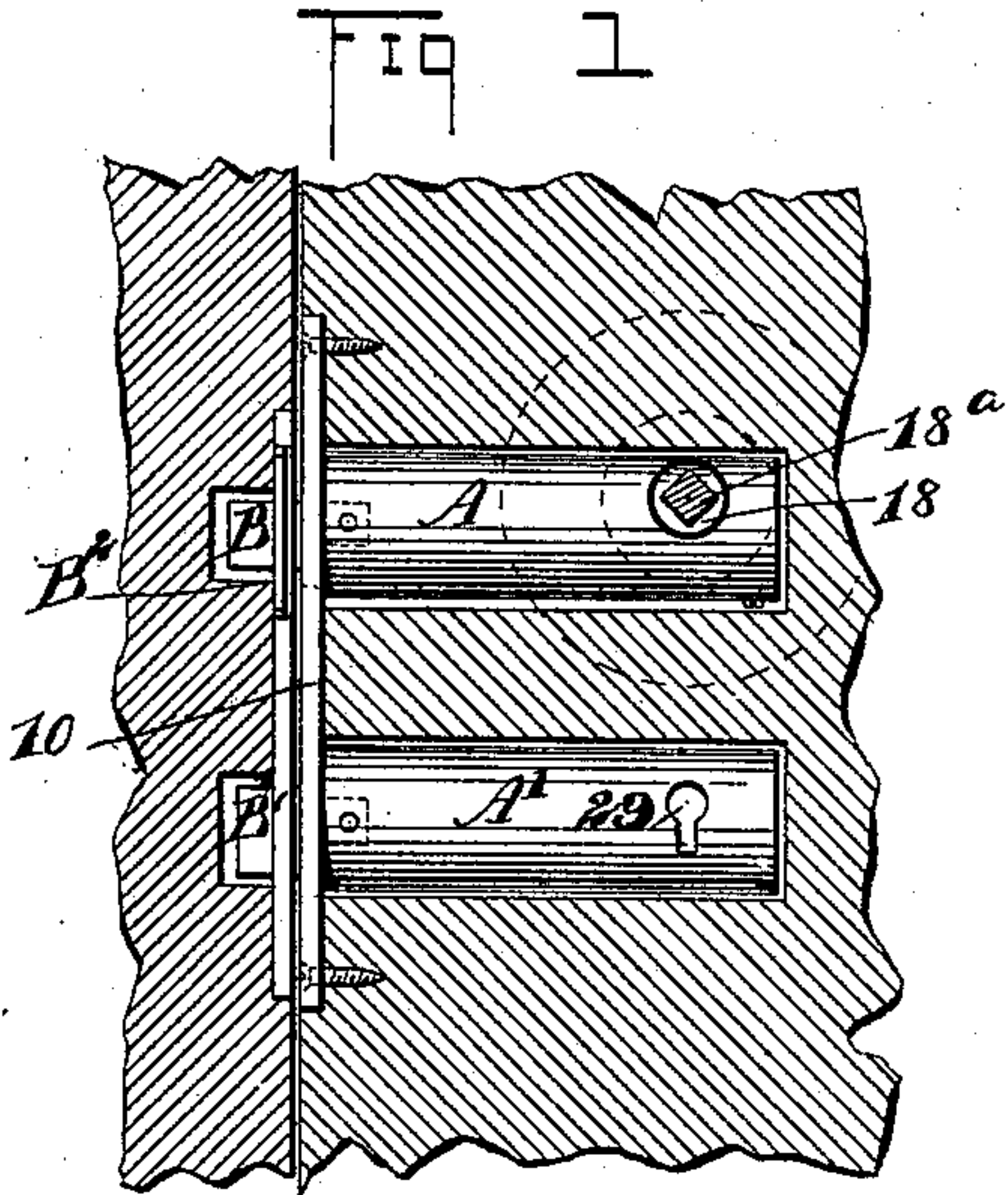


(No Model.)

J. C. HOLLMAN.  
LOCK.

No. 581,161.

Patented Apr. 20, 1897.



WITNESSES:

*G. C. Johnson*  
*Frederick*

INVENTOR

*J. C. Hollman*

BY

*Wm. J. ...*

ATTORNEYS.



# UNITED STATES PATENT OFFICE.

JACOB CONRAD HOLLMAN, OF CARBON BLACK, PENNSYLVANIA.

## LOCK.

SPECIFICATION forming part of Letters Patent No. 581,161, dated April 20, 1897.

Application filed April 1, 1896. Serial No. 585,726. (No model.)

*To all whom it may concern:*

Be it known that I, JACOB CONRAD HOLLMAN, of Carbon Black, in the county of Butler and State of Pennsylvania, have invented a new and useful Improvement in Locks, of which the following is a full, clear, and exact description.

My invention relates to an improvement in locks, and especially to an improvement in mortise-locks.

The object of the invention is to provide a lock which may be expeditiously and conveniently mortised into any door and when placed in position will not to any appreciable extent detract from the strength of the door.

Another object of the invention is to provide a mortise-lock in which the bolt and a latch will be in separate cylindrical compartments and wherein each and every part of the lock will be of simple, durable, and economic construction.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a vertical section through a portion of the door and the jamb for the same, the lock being shown in position and in side elevation. Fig. 2 is a vertical section through the lock, taken at or near its central portion. Fig. 3 is a vertical section taken substantially on the line 3 3 of Fig. 2, and Fig. 4 is a section taken through one of the cylindrical casings at the back of the face-plate connecting the casings.

In carrying out the invention a face-plate 10 is provided for the lock, to which face-plate two cylinders A and A' are secured at suitable distances apart, the cylinders being preferably attached to the face-plate by providing upon the latter lugs 12, which engage with the inner faces of the cylinders, as shown in Fig. 4, and rivets 11 or their equivalents are passed through the cylinders and through their engaging lugs.

The upper cylinder A is preferably the latch-cylinder, and the latch-head 13 of the

latch B in said casing is of the usual construction and passes out through a suitable opening in the face-plate, the said latch-head having a shank 14 secured thereto. The shank of the latch-head is surrounded by a coiled spring 15 or other form of spring, and the inner end of the shank of the latch is made to extend through an opening in a partition 16, formed near the rear end of the cylinder A, and the rear end of the spring 15 has bearing against the aforesaid partition 16, while the forward end of the spring has engagement against the head of the latch. The rear end of the shank of the latch extending rearwardly beyond the partition 16 has an opening 17 therein, and in the cylinder A a sleeve 18 is mounted to turn, adapted to receive the knob-spindle 18<sup>a</sup>, as shown in Fig. 3. The knob-spindle sleeve is provided with a tongue 19, which extends downward through the opening 17 in the rear end of the latch, and the limit of the rearward or inward movement of the latch is controlled by means of a stop-pin 20 or its equivalent secured in the aforesaid cylinder A in the path of the latch. Therefore by turning the knob in a direction which will carry the tongue 19 rearward the said tongue will carry the latch in the same direction, admitting of the door being opened, and upon the release of the knob-spindle the spring 15 will act to carry the head of the latch outward in position to enter the keeper B<sup>2</sup> in the door-jamb, as shown in Fig. 1.

It is evident that by removing the stop 20 the bolt may be pushed far enough inward to permit of the tongue of the knob-spindle sleeve being disengaged from the latch, admitting of the removal of the former in the event that repairs may be necessary or for reversing the latch for a right-hand or left-hand door.

The second cylindrical casing A' is located below and vertically in alinement with the upper casing A, as shown in Figs. 1, 2, and 3, and is attached to the face-plate 10 in the same manner as has been heretofore described in relation to the uppermost cylinder-casing. Within the lower cylinder-casing A' the shank 22 of the bolt-head 21 of the bolt B' is mounted to slide, and preferably the shank and the bolt-head are connected in a detachable man-



ner to facilitate the replacement of parts whenever desired. The rear end of the shank of the bolt has sliding movement through a partition 23 in the rear portion of the casing A', and in the upper edge of the said bolt-shank 22, near its forward end, preferably two recesses 24 and 25 are produced, but the said recesses may be of a greater or a less number, as desired, and a spring 26 is located within the aforesaid casing A', having bearing against a side of the casing and against the top of the shank of the bolt, and the outer or forward end of the spring is preferably given a semicylindrical shape, being adapted to enter either of the recesses 24 or 25 of the said bolt.

In the rear portion of the upper edge of the bolt-shank one or more, preferably two, substantially angular recesses 27 and 28 are produced, the said recesses being at the rear of the partition 23, and a rear opening 29 is made in the casing A', so placed that when the bolt is in its outer or locking position and when two of the bit-receiving recesses 27 and 28 are employed the key-opening will be opposite the rearmost opening or recess 28 in the bolt-shank.

The key 30 may be of any desired construction, and its bit is adapted to have play in the aforesaid recesses 27 and 28. In the operation of the bolt, it being in its outer or locked position, as shown in Fig. 2, when it is desired to carry the bolt inward this is done in one revolution of the key, the bit of the key being at that time in the rearmost recess 28. Therefore when the key is turned the bit of the key will strike against the rear wall of the said recess 28 and will force the bolt rearward a sufficient distance to cause the spring 26 to leave the inner spring-receiving recess 25 and be at a point between said recess and the forward recess 24, and as the bit of the key is carried forwardly it will enter the forward bit-recess 27, and the key being further turned will bring this latter or forward bit-recess 27 in alinement with the key-opening, permitting the withdrawal of the key and bringing the bolt at the same time fully within the lock, and the spring 26 will have entered the forward recess 24 adjacent to the head of the bolt, holding the bolt in its inner position.

It is evident that a lock constructed as above set forth may be expeditiously and conveniently applied to any door or to any article necessary without detracting materially from the strength of the article to which application is to be made, it being necessary only to make two spaced bearings for the reception of the casings A and A' and a countersink to receive the face-plate in addition to the necessary openings for the knob-spindle and the introduction of the key.

The forward throw of the bolt B' is limited by a pin 31, secured in the shank and engaging with the partition 23 in the casing when

the bolt is in its full outer position, as also shown in Fig. 2.

The cylinders may be placed upon separate face-plates, if desired, and may be of any size or material.

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

1. In a mortise-lock, a face-plate, a casing secured to the said face-plate and provided with an inner apertured partition and a removable stop at the rear of the partition, a latch having sliding movement in the casing, being arranged to pass at its rear end through the partition therein and the head of the latch being adapted to extend outward through the face-plate, a spring coiled around the latch between its head and the inner partition of the casing, the rear or inner end of the latch being provided with a vertically-disposed opening, and a spindle-sleeve journaled in the said casing in rear of the partition and above the latch and provided with a downwardly-projecting tongue entering the slot in the said latch, as and for the purpose specified.

2. In a lock, a face-plate, a casing attached to the said face-plate, said casing having an open rear end and provided with a rear apertured partition, a bolt held to slide in the said casing through the said partition and provided with a removable head, the head of the bolt being arranged to pass outward through the face-plate, the shank portion of the bolt forward of the said partition being provided with recesses, recesses being likewise provided in that portion of the bolt extending rearward of the said casing in front of the partition, a pin secured to the bolt in rear of and adapted to engage the partition, and a spring located within the casing, adapted to enter the forward recesses of the bolt, the rear recesses of the said bolt being adapted to receive the bit of a key, as and for the purpose specified.

3. A mortise-lock, consisting of a face-plate, two cylindrical casings projecting from the face-plate, each casing having an open inner end and provided with an apertured partition, a spring-pressed latch in one casing and having its inner end slotted and projecting through the aperture of the partition, a removable stop on the bottom and near the rear end of the casing, a spindle-sleeve mounted in the casing, above the latch and provided with a tongue projecting into the slot of the latch, a sliding and spring-pressed bolt arranged in the other casing and provided with a removable head and recesses in its inner end to receive the bit of the key, and a laterally-projecting pin secured in the bolt and adapted to engage the partition, substantially as herein shown and described.

JACOB CONRAD HOLLMAN.

Witnesses:

JOHN HOLLMAN,  
I. P. WALKER.