

No. 842,299.

PATENTED JAN. 29, 1907.

O. CASSITY.
LATCH.

APPLICATION FILED JULY 21, 1906.

Fig. 1.

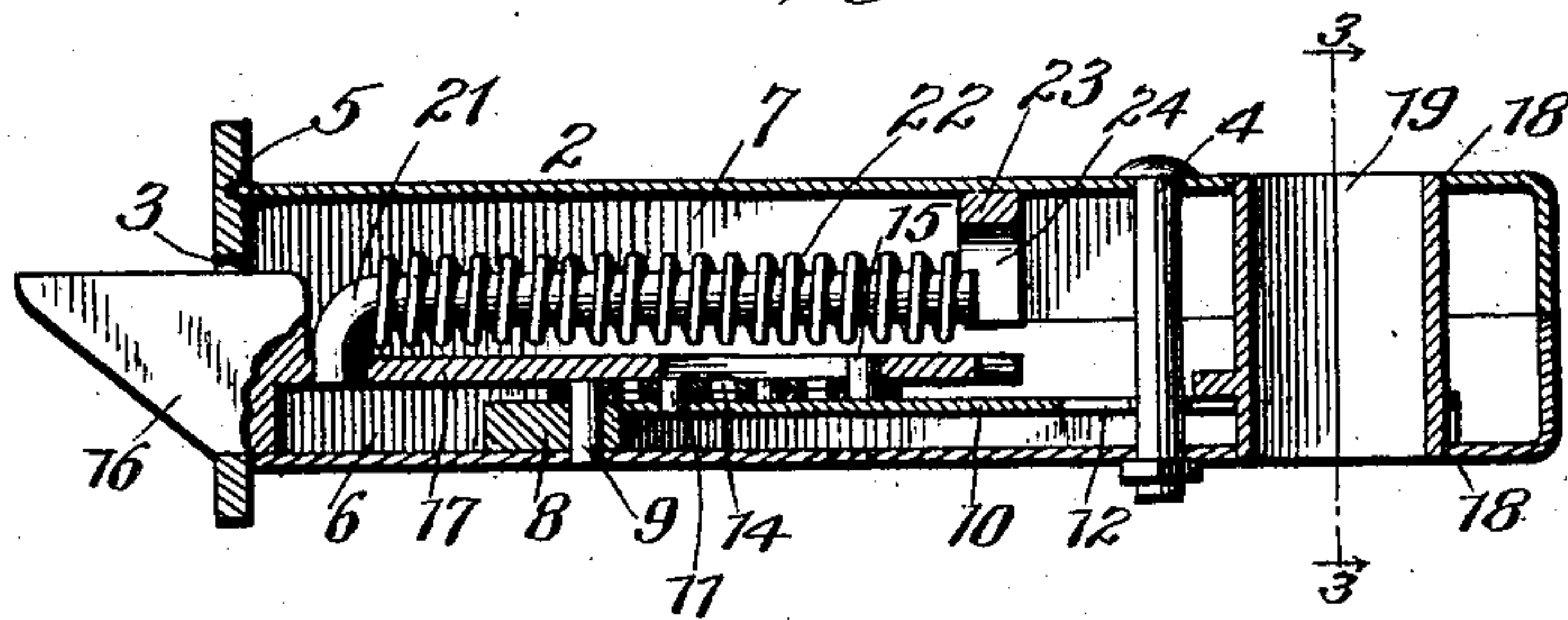


Fig. 2.

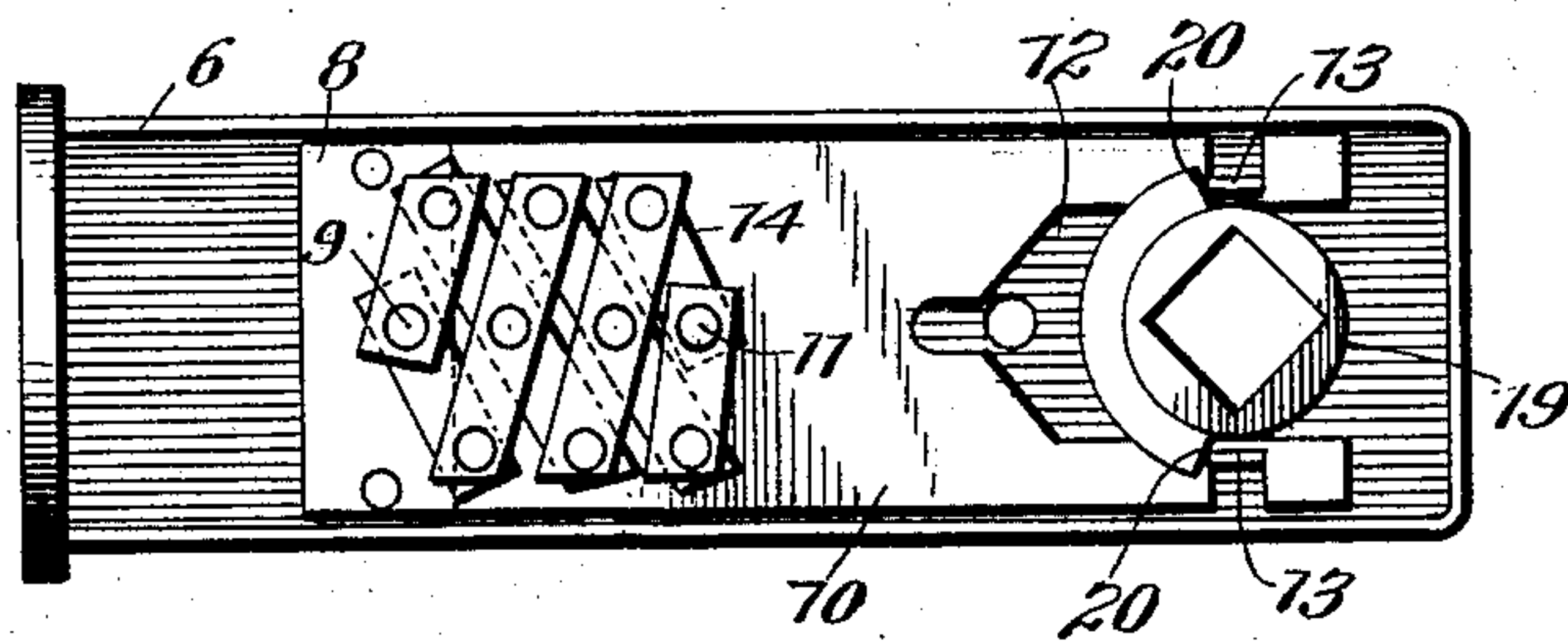


Fig. 3.

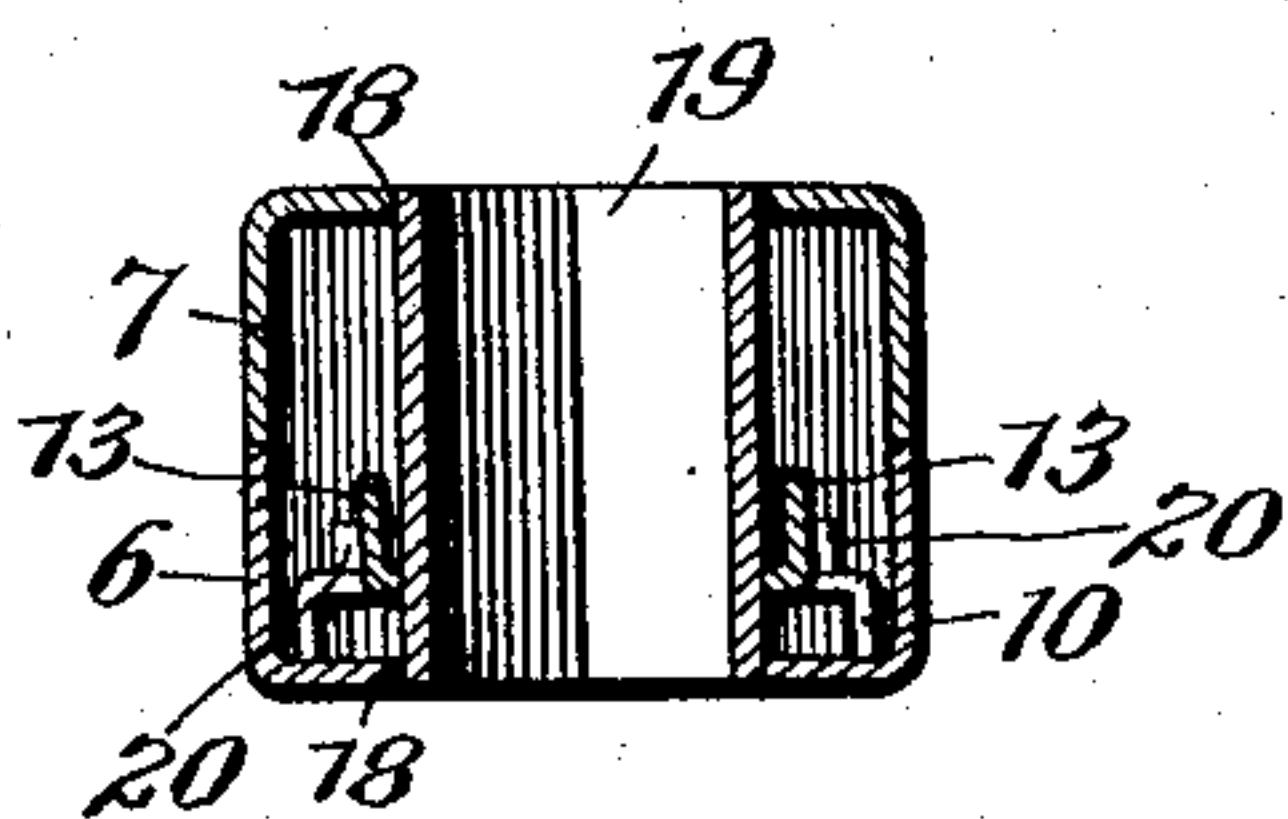


Fig. 4.

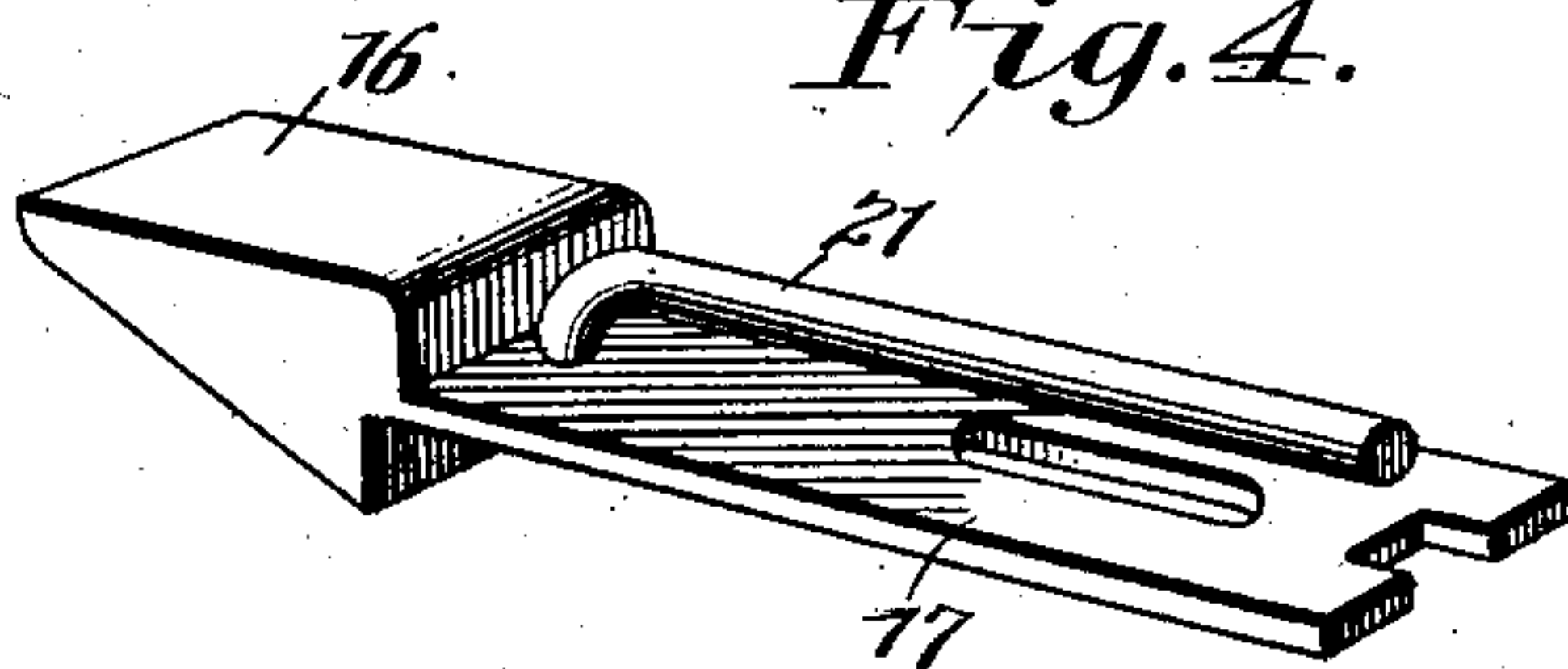
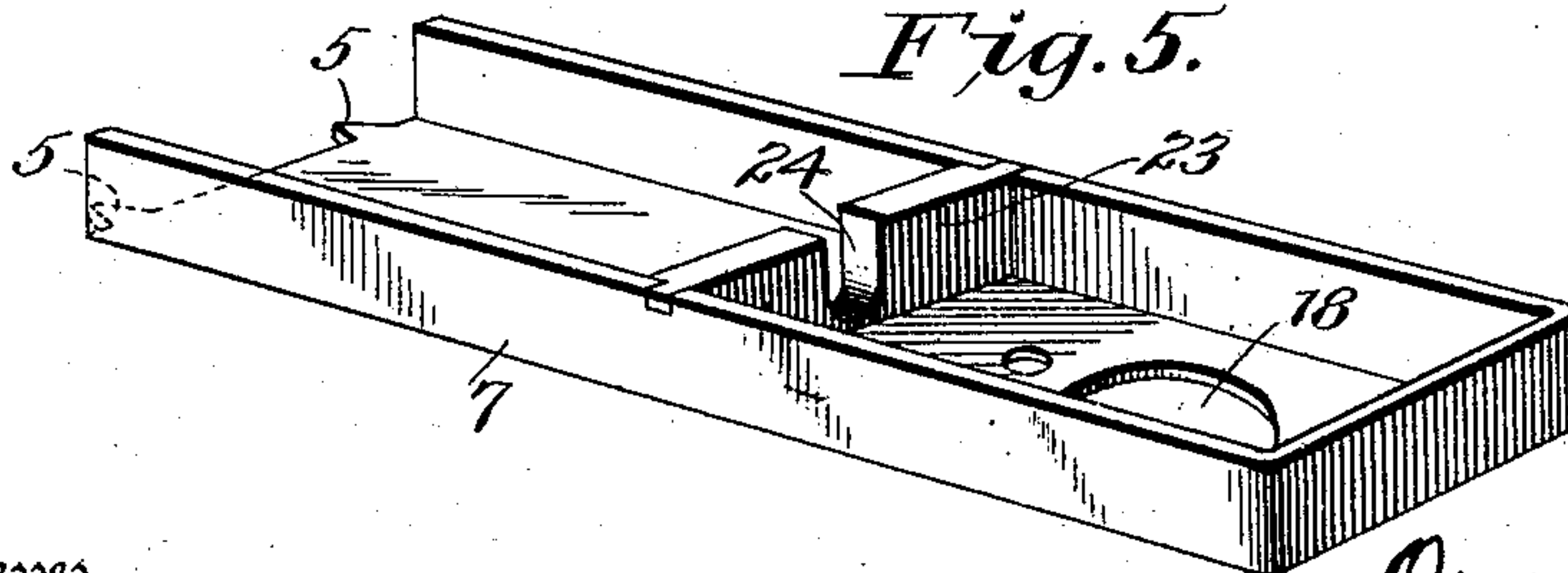


Fig. 5.



Inventor

Witnesses

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UNITED STATES PATENT OFFICE.

OSCAR CASSITY, OF STURGEON, MISSOURI.

LATCH.

No. 842,299.

Specification of Letters Patent.

Patented Jan. 29, 1907.

Application filed July 21, 1906. Serial No. 327,170.

To all whom it may concern:

Be it known that I, OSCAR CASSITY, a citizen of the United States of America, residing at Sturgeon, in the county of Boone and State of Missouri, have invented certain new and useful Improvements in Latches, of which the following is a specification.

This invention relates to new and useful improvements in latches, and more especially to that class wherein the sliding bolt is spring-pressed.

It is an object of the invention to provide a novel device of this character which is of small compass, yet possesses the advantages of locks of the ordinary or larger size of lock.

It is also an object of the invention to provide a novel device of this character wherein a toggle is employed for imparting motion to the sliding bolt in one direction, a method which has been found to obviate the necessity of complex and intricate lock mechanism. By the use of the toggle a device is provided which may be easily repaired.

Finally, an object of this invention is to produce a device of the character noted which will possess advantages in points of simplicity, efficiency, and durability, proving at the same time comparatively inexpensive to manufacture.

With the foregoing and other objects in view the invention consists in the details of construction and in the arrangement and combination of parts, to be hereinafter more fully set forth and claimed.

In describing the invention in detail reference will be had to the accompanying drawings, forming part of this specification, wherein like characters denote corresponding parts in the several views, in which—

Figure 1 is a longitudinal section of the device. Fig. 2 is a top plan view, the upper section of the casing being omitted. Fig. 3 is a sectional view taken on the line 3-3, Fig. 1. Fig. 4 is a perspective view of the latch and its intimate parts. Fig. 5 is a view in perspective of the upper section, the same being shown inverted.

In the drawings, 2 indicates an approximately oblong casing provided at one end with the usual latch-opening 3. This casing is formed in two sections, which are held in their assembled position through the medium of the screw or bolt 4. The said sections are

further held against displacement by means of pointed projections 5, which extend within recesses in the open end 6 of the casing. It is to be stated that the open end of the casing is carried by one of the sections, while the projections 5 are on the end of the remaining section, and for the purpose of better identification that section carrying the open end will be designated 6, while the remaining section will be numbered 7.

Immovably secured to the section 6 and extending transversely thereof at a point adjacent the opening 3 is a strip 8. Approximately centrally of this strip 8 is an upstanding lug or projection 9. Loosely resting within the section 6 between the strips 8 and the closed end is a slide 10, which has near its end adjacent the strip 8 an upstanding lug or projection 11, said projection 11 being in alinement with the projection 9. The opposite end of the slide is bifurcated or cut away, as at 12, and attention is directed to the central elongated slot which is for the purpose of allowing the slide to move past the retaining-screw 4 of the sections when in their applied positions. This end portion of the slide is also provided with the oppositely-disposed upstanding lugs 13, for a purpose to be hereinafter set forth.

Secured to the projection 9 is an end of a toggle 14, said toggle extending over the slide 10. This toggle is held to said slide 10 by the projection 11, said projection also acting as a pivot for two of the cross-levers of the toggle. The free end of the toggle has an upstanding projection 15, said projection being the pivot of the end levers. It might also be added that the projection 9 also acts as a pivot in the toggle.

Projecting through the opening 3 is the latch 16, which is provided with a flat shank or bolt 17, which extends over the toggle 14. This shank is provided with a central elongated slot into which extends the projection 15 of the toggle.

The sections 6 and 7 are provided near their closed ends with openings 18, in which is mounted the barrel 19, having the squared bore for the reception of the operating-spindle. This barrel is provided with the oppositely-disposed shoulders 20, which are intended to contact with either of the lugs 13 of the slide for imparting motion to the slide

in one direction. This movement of the slide will cause the toggle 14 to expand, and said expansion will impart an inward movement to the latch, or, in other words, will release the latch. It is to be observed that the barrel 19 is positioned within the bifurcated end of the slide.

Parallel to one of the faces of the shank of the latch is a bar 21, which has one end turned at approximately right angles, said turned end being pivotally held by the shank. On this bar is arranged a spiral spring 22, one end of which spring bears against the curved portion of the bar, while the opposite end is in contact with the transverse strip 23, carried by the section 7 of the casing. This strip 23 is provided with a central cut-away portion 24, which fits over the bar 21. The strip 23 not only acts as an abutment for the spiral spring, but serves as a guide for the latch, as will, it is thought, be readily appreciated. This spring holds the latch in its normal or extended position.

In the operation of the latch a cross-bar 8 limits the inward movement of the latch, while the compression of the toggle limits the outward movement of the latch.

Although the bar 21 has been described as pivotally secured to the shank 17, this feature is not absolutely essential; but it has been found in practice that by such an arrangement the parts may be more readily assembled.

Having fully described my invention, what

I claim as new, and desire to secure by Letters Patent, is—

1. In combination, a casing, a latch therein, a slide within the casing, a lazy-tong pivoted at one end to the casing, the opposite end engaging the latch, said lazy-tong being pivoted intermediate its length to the slide, said lazy-tong being positioned between the slide and the latch.

2. In combination, a casing, a latch therein, a slide in the casing, a lazy-tong secured to the casing and slide and engaging the latch, said lazy-tong being positioned intermediate the slide and latch, said slide being bifurcated at one end and having shoulders on its bifurcated portion and a barrel extending through the casing and the bifurcated portion of the slide, said barrel having shoulders for engaging the shoulders of the slide.

3. In combination, a casing, a latch having a slot, a slide in the casing, means for moving the slide, a lazy-tong secured to the casing and the slide and having a projection extending within the slot of the latch, said lazy-tong being positioned intermediate the slide and the latch.

In testimony whereof I affix my signature, in the presence of two witnesses, this 14th day of July, 1906.

OSCAR CASSITY.

Witnesses:

J. H. DANIEL,
B. B. BROWN.