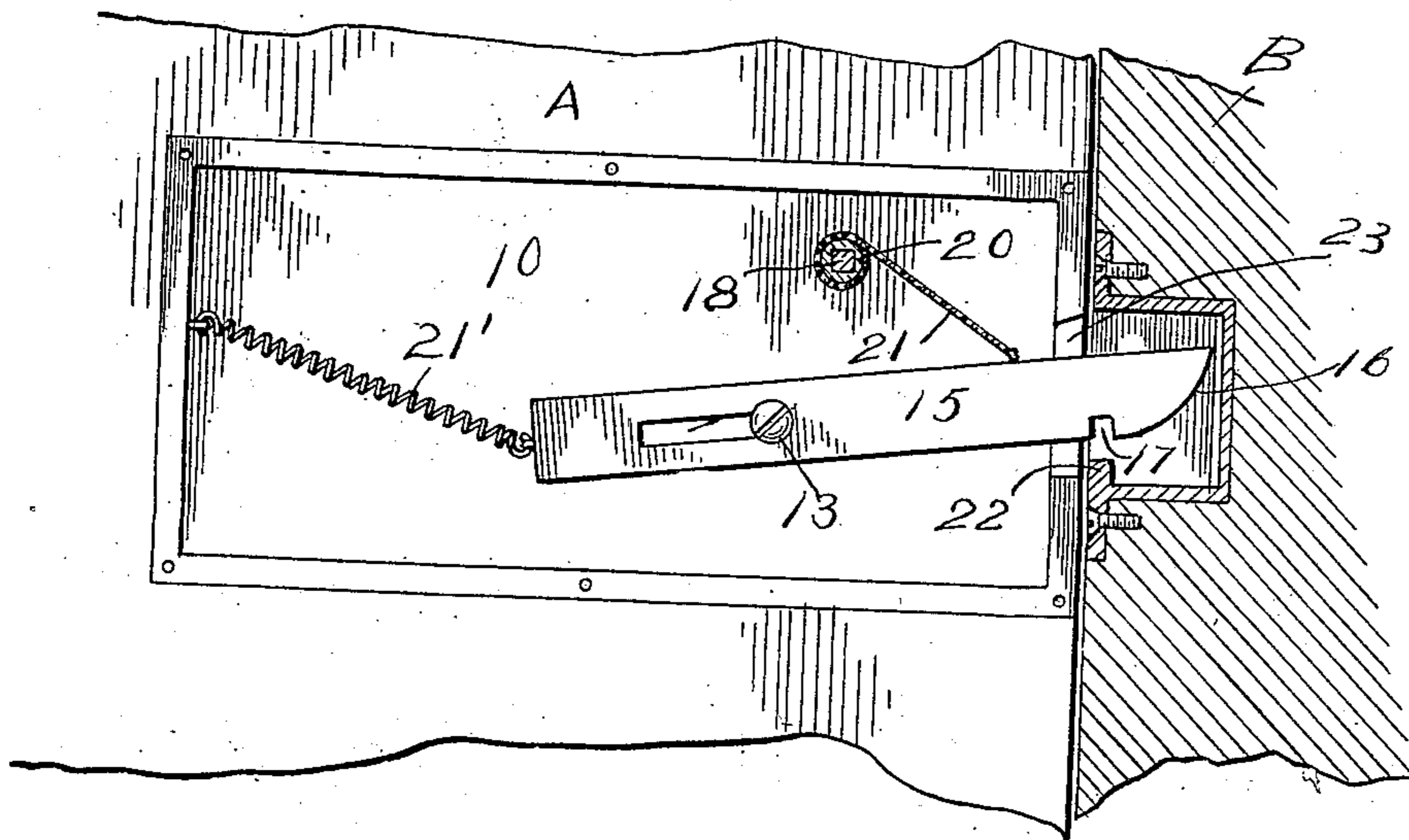
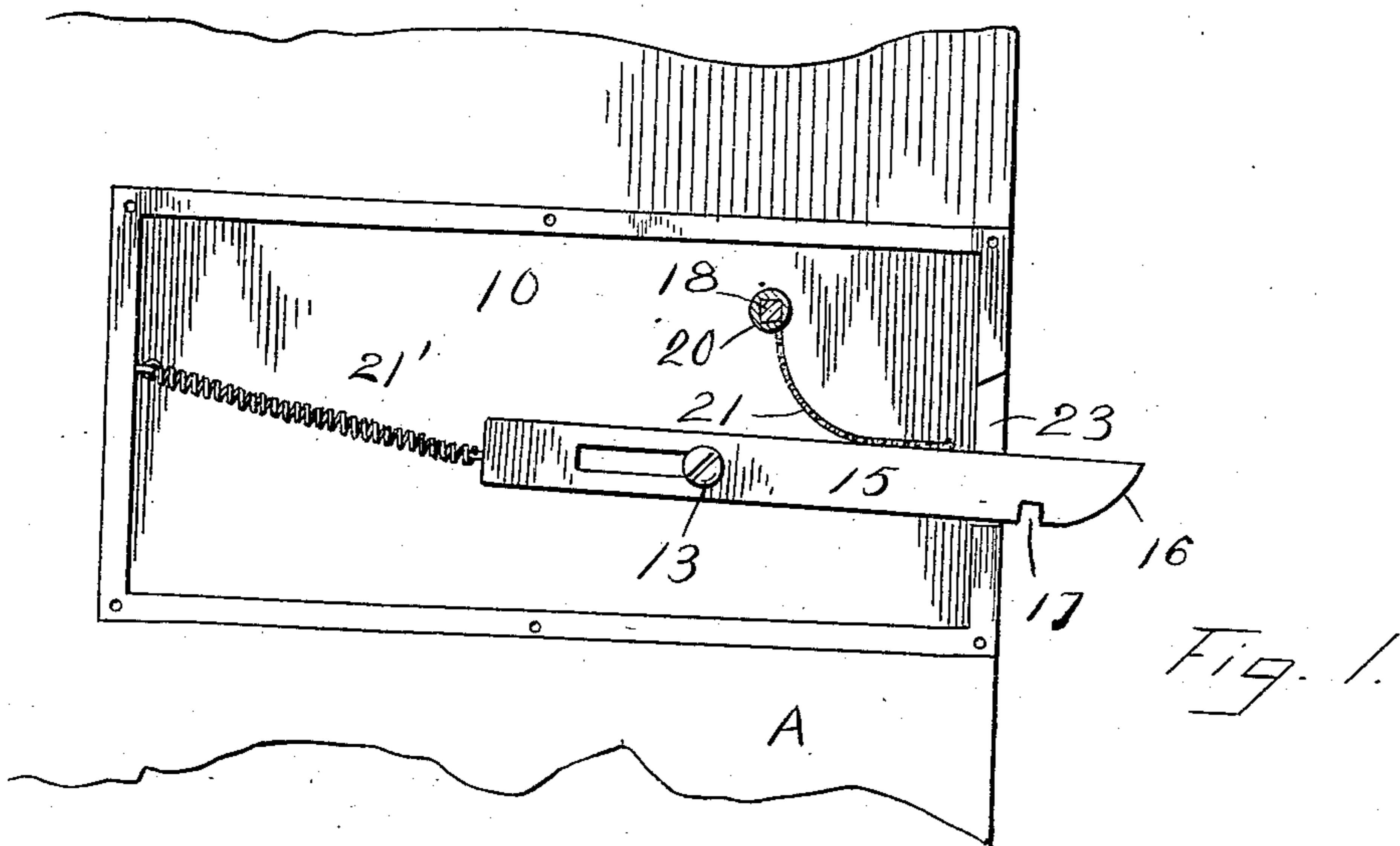


917,969.

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SLIDING DOOR FASTENER.  
APPLICATION FILED APR. 1, 1908.

Patented Apr. 13, 1909.  
2 SHEETS—SHEET 1



Witnesses  
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2 SHEETS—SHEET 2.

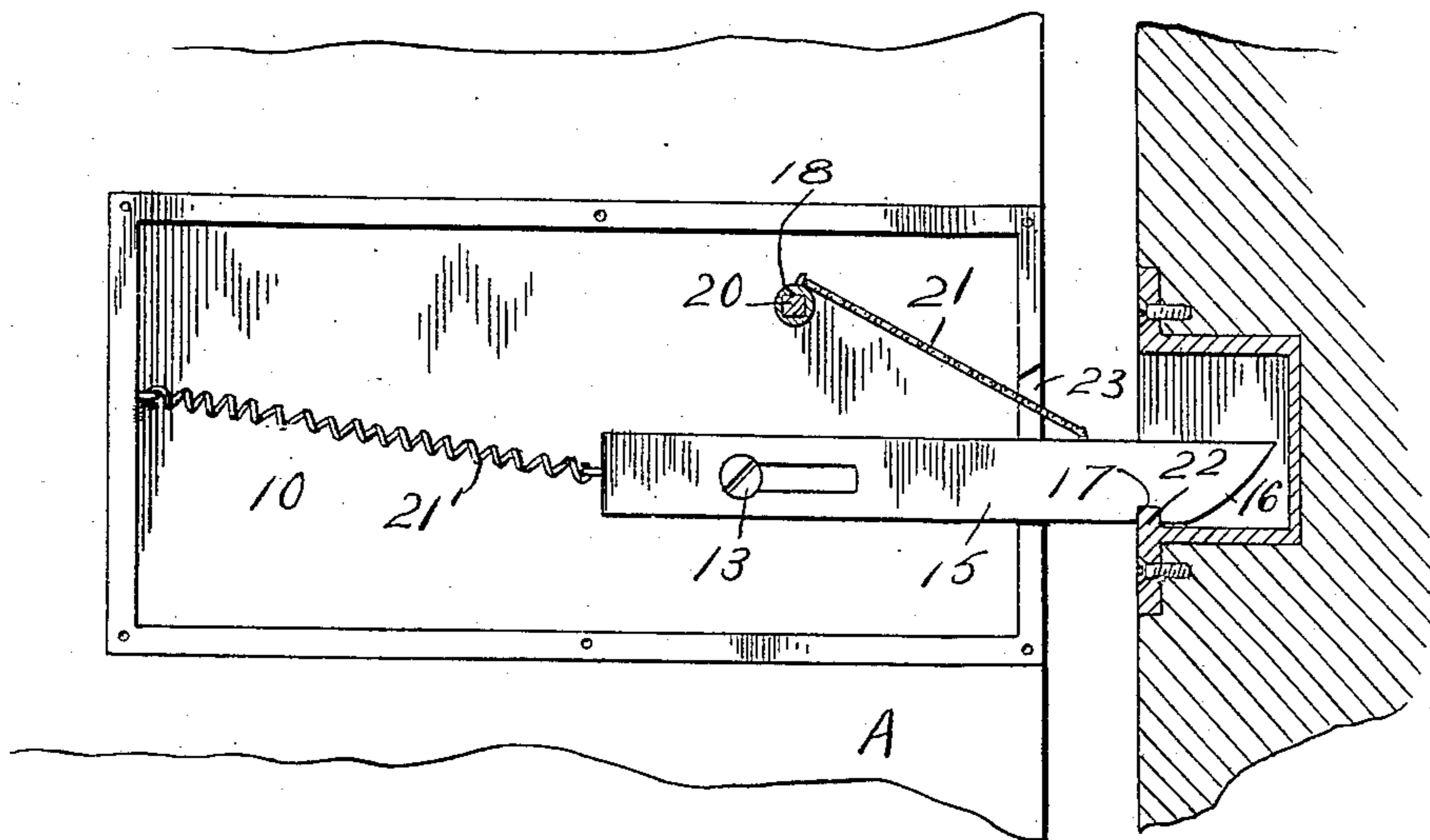


Fig. 3

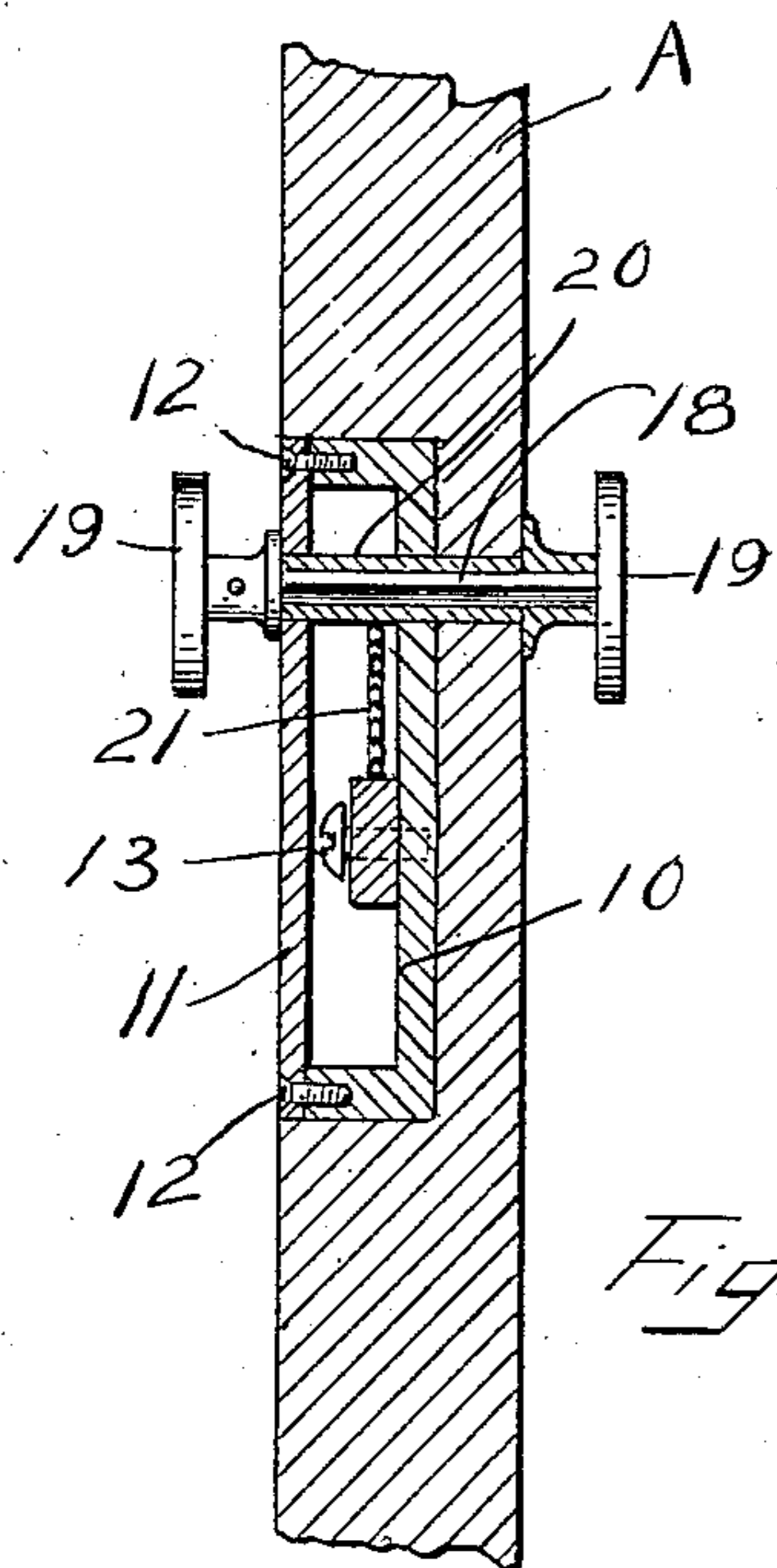


Fig. 4

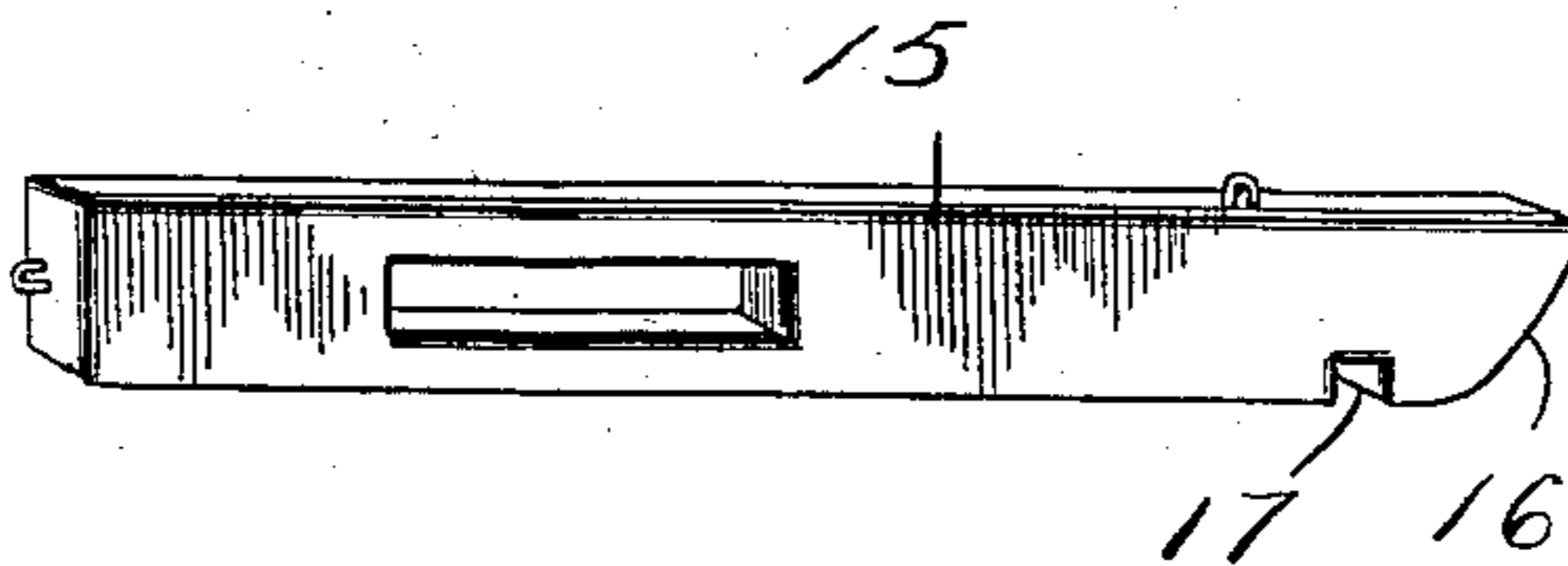


Fig. 5

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# UNITED STATES PATENT OFFICE.

JONATHAN B. SHINN, OF LEVERING, MICHIGAN.

## SLIDING-DOOR FASTENER.

No. 917,969.

Specification of Letters Patent.

Patented April 13, 1909.

Application filed April 1, 1908. Serial No. 424,547.

*To all whom it may concern:*

Be it known that I, JONATHAN B. SHINN, a citizen of the United States, residing at Levering, in the county of Emmet, State of Michigan, have invented certain new and useful Improvements in Sliding-Door Fasteners; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to door latches and more particularly to that class of latches which are designed for use on sliding doors. It is a well known fact that when a sliding door is forcibly slid to closed position, it will rebound to a slight degree and in order that this rebound may be taken up and latching of the door insured, I provide a latch bolt which is mounted not only for rocking movement but also for sliding movement, the bolt being held at one limit of its sliding movement by means of a spring, any rebound of the door acting against the tension of the spring. The notched end of the bolt normally projects through the casing in which the bolt is mounted, to a sufficient degree to engage with the keeper and after such engagement, if the door has been forcibly slid to closed position, and rebound, the bolt will be retracted to a slight degree from the casing against the tension of the spring, the spring subsequently acting to pull the door completely to closed position.

In the accompanying drawings, Figure 1 is a side elevation of the latch embodied in my invention, the cap plate for the casing being removed and showing the latch bolt in elevation and in normal position before engagement with its keeper, Fig. 2 is a similar view but showing the latch bolt rocked for disengagement from its keeper, Fig. 3 is a similar view but showing the latch bolt partly retracted from the casing against the tension of its retaining spring. Fig. 4 is a vertical sectional view taken in a plane with the knob spindle for operating the latch, and, Fig. 5, is a detail perspective view of the latch bolt.

In the drawings, the latch is shown as comprising a casing which is indicated in general by the reference numeral 10, and which is provided with a cap plate 11, which may be removed to permit of access being had to the interior of the casing. The door upon which the casing is mounted is indi-

cated in general by the reference character A, only a portion of the door being shown and the stile of the door frame against which the free edge of the door abuts, being indicated in general by the reference character B.

The cap plate 11, is held upon the casing by means of suitable screws 12, a screw bolt 13, is passed through a slot 14, formed longitudinally in the latch bolt of the latch which is indicated by the numeral 15. This screw bolt 13, serves two functions, one to permit rocking movement of the latch bolt 15, and the other to limit the sliding movement of the latch bolt, the outer end of the bolt being beveled as at 16, and notched as at 17 for engagement with a keeper which will be presently fully described. In order that the latch bolt may be rocked, as stated, I mount through the casing 10 a spindle 18 provided at each of its ends with a knob 19 by means of which it may be rocked or rotated and fixed upon the spindle is a sleeve 20 to which is attached one end, namely the upper end, of a chain or other flexible connection 21. The lower end of this chain is attached to the bolt 15 between its outer end and the pivot bolt 13 and it will be understood that by rotating the knob spindle in either direction, the chain will be wound around the sleeve thereon and shortened, thereby resulting in the bolt being rocked in a vertical direction, its outer end being raised and its inner end being lowered. Attached to the inner end of the bolt 15 is one end of a spring 21' and the other end of this spring is secured to the adjacent end wall of the casing 10 at a point above the plane occupied by the bolt 15. Not only does the spring 21' serve to hold the bolt 15 within the casing as far as permitted by the screw bolt 13, but by reason of the fact that its inner end is attached to the end wall of the casing above the plane occupied by the bolt 15, there is a tendency for the outer end of the bolt to rock downwardly and consequently lifting of the said outer end of the bolt is against the tension of the spring 21' and after the bolt has rocked to lift this end, the spring will act to lower the end and unwind the chain 21 from the sleeve thereby restoring the bolt and the spindle to normal position. The keeper is formed with an opening and the lower edge of the opening is formed with a shoulder 22 so that the beveled outer end of the latch bolt, indicated

by the numeral 16, may ride thereover and engage with its notch 17 with the said shoulder. An opening 23 is formed in that end wall of the casing 10 of the latch which opposes the opening 22 and this opening is of sufficient size to permit vertical rocking movement of the outer end of the bolt.

From the foregoing description of my invention, it will be seen that the bolt may be rocked by turning the spindle 18 as heretofore stated and in this manner disengage from its keeper so that the door may be opened and it will be further understood that should the door be forcibly slid to closed position and should it rebound, the bolt will first engage with its keeper and the rebound of the door will of course exert a pull upon the bolt which will be taken up

by the spring 21' and the said spring is preferably of sufficient strength to pull the door to closed position after it has rebounded.

What is claimed, is:—

A sliding-door fastener comprising a casing, a bolt having a pivotal and longitudinal movement, a knob and its spindle, a flexible member wound on the spindle and connected to one end of the bolt, and a spring connected at its ends to the other end of the bolt and to the casing, respectively.

In testimony whereof, I affix my signature, in presence of two witnesses.

JONATHAN B. SHINN.

Witnesses:

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IRVING COLLINS.