

No. 815,432.

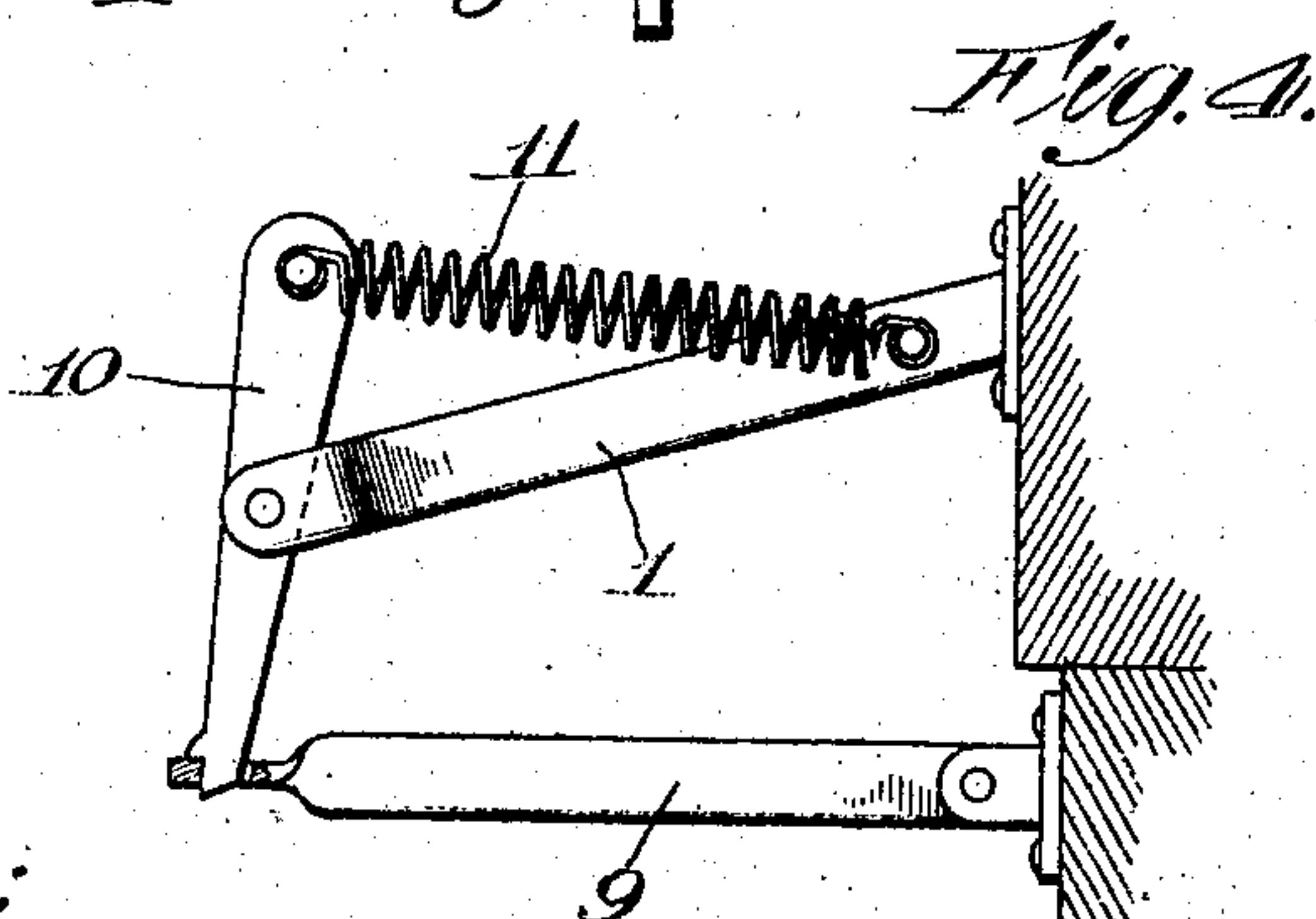
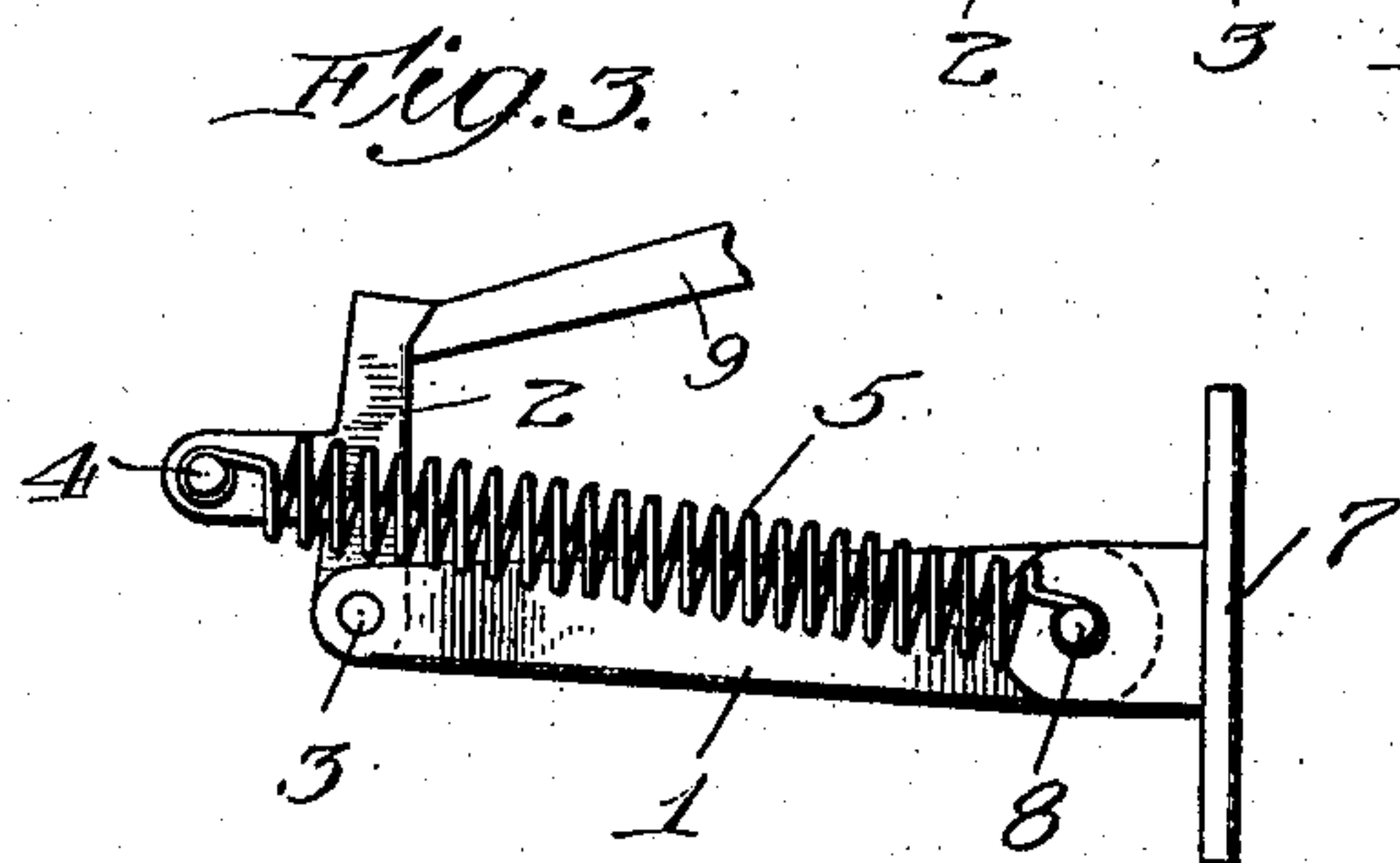
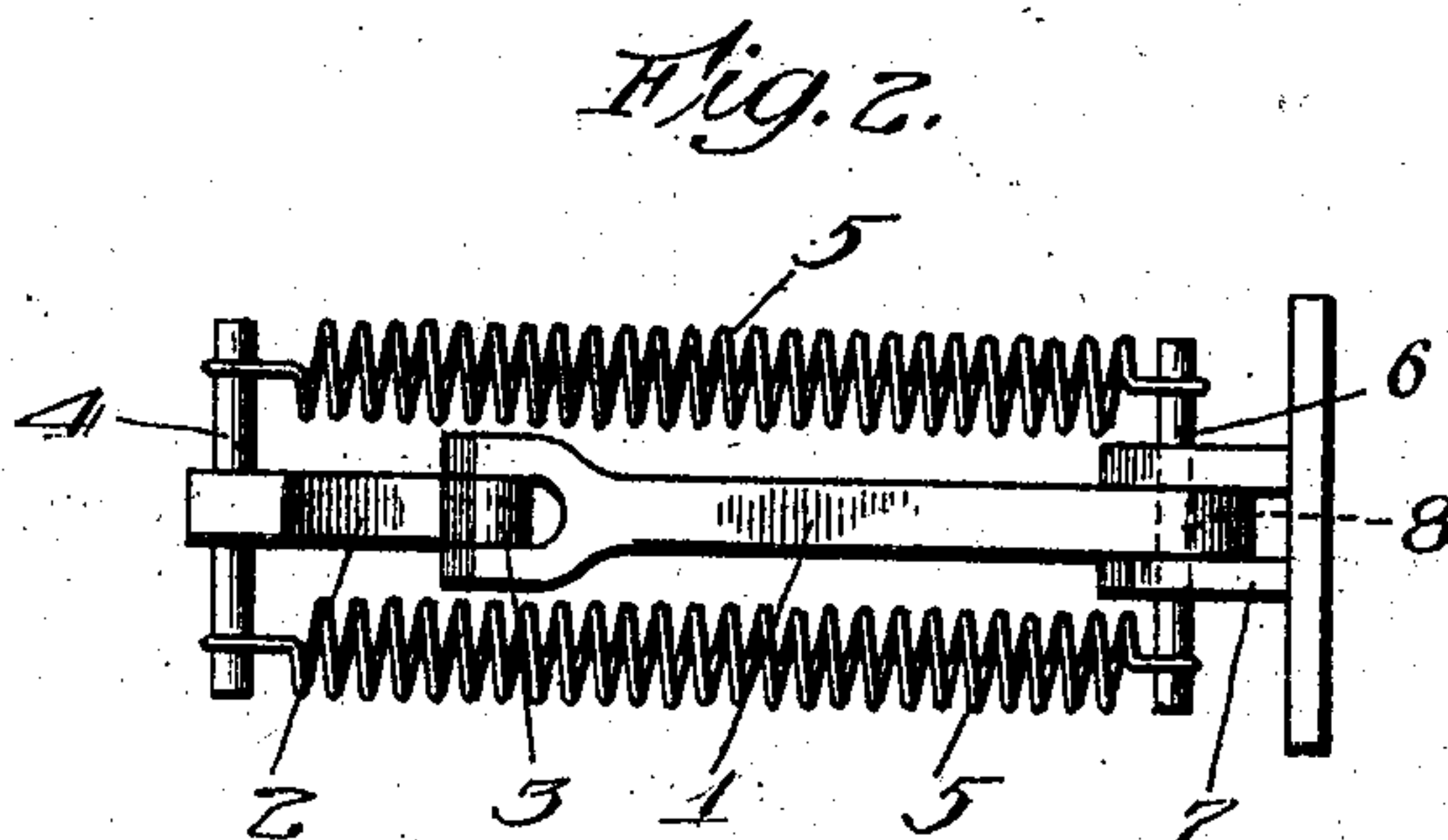
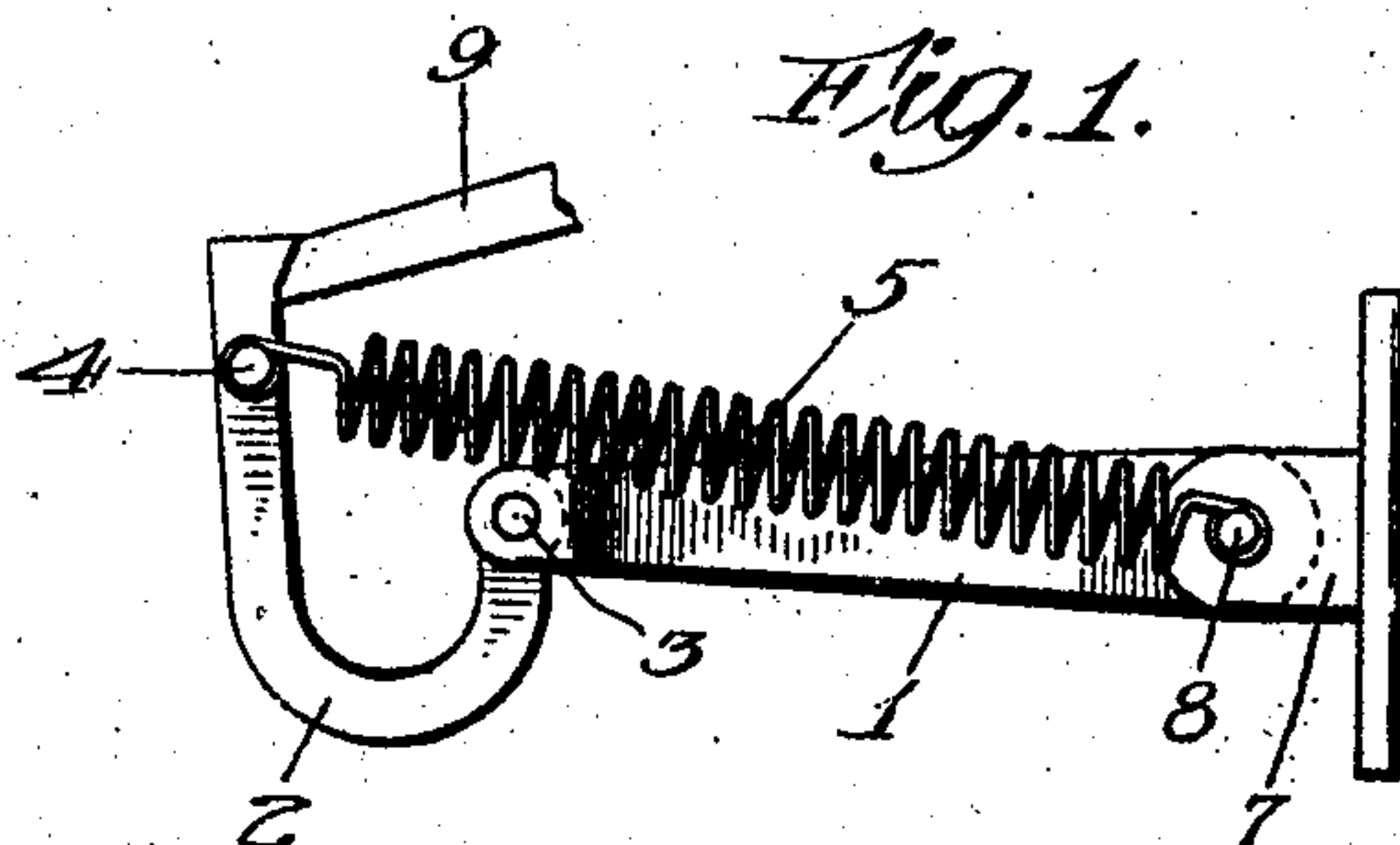
PATENTED MAR. 20, 1906.

G. B. JOHNSON.

TEMPORARY DOOR RETAINER AND THE LIKE.

APPLICATION FILED JAN. 23, 1905.

3 SHEETS—SHEET 1.



Witnesses:
Robert A. Weir
Roy W. Hill.

Inventor:
Gilbert B. Johnson
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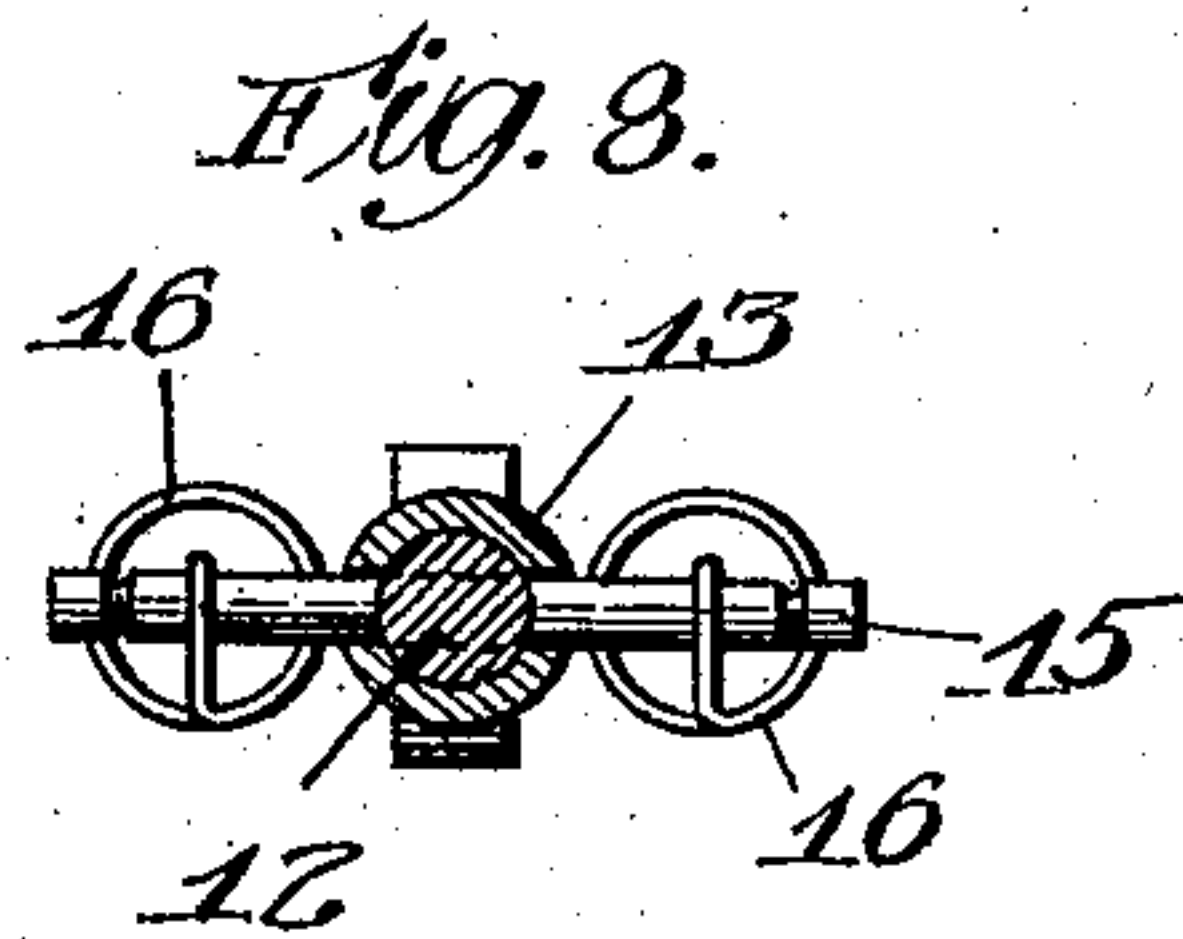
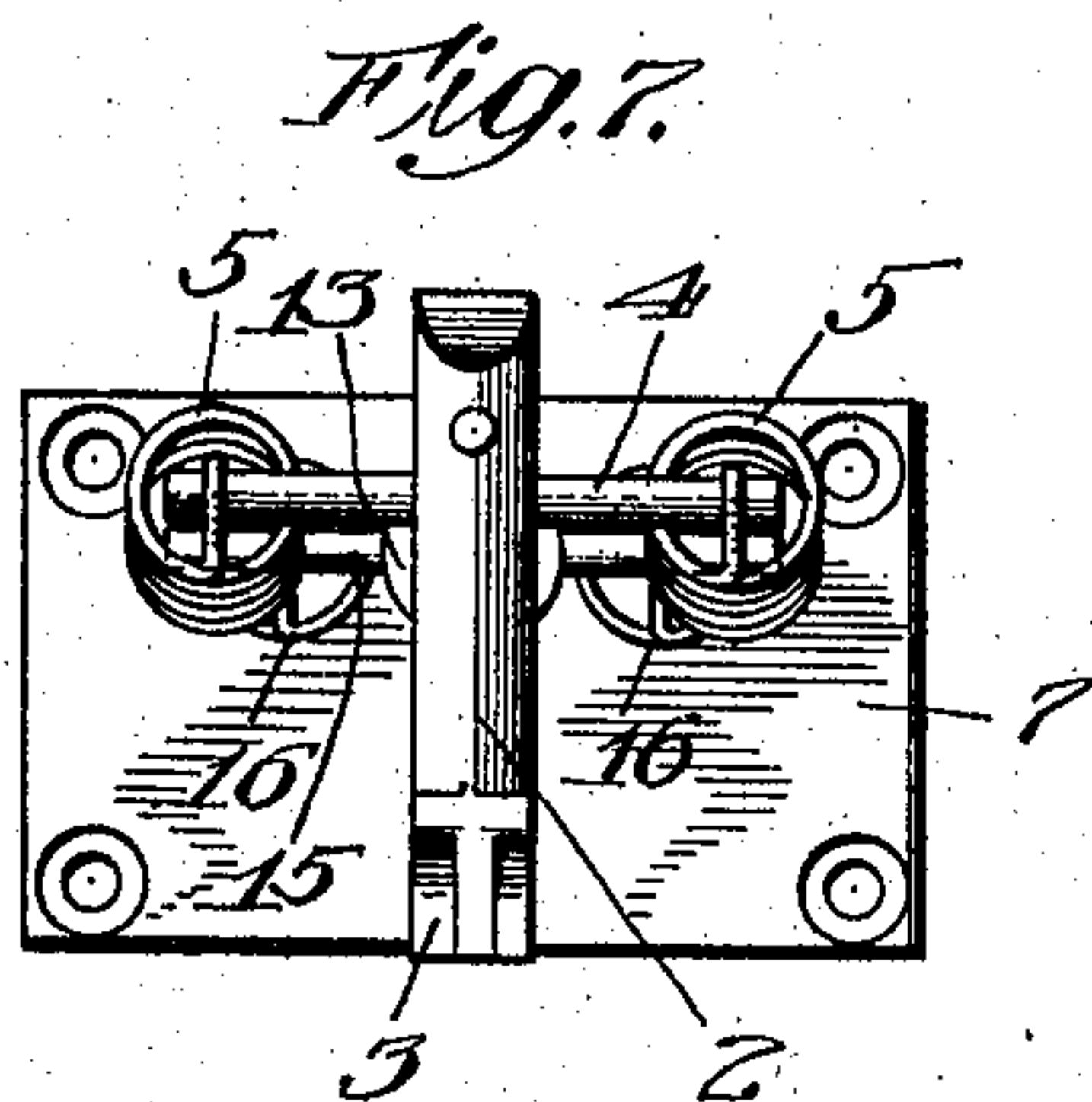
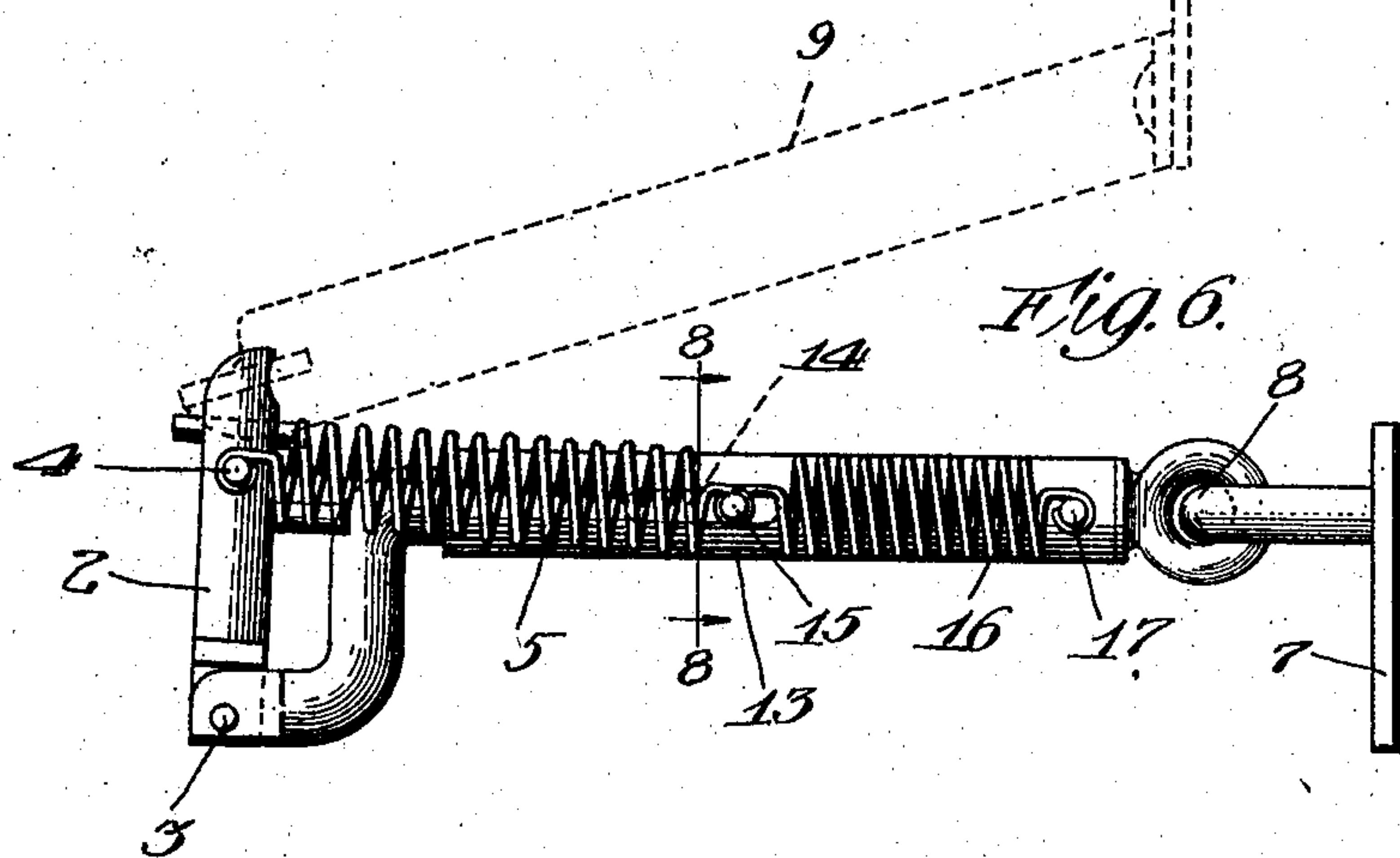
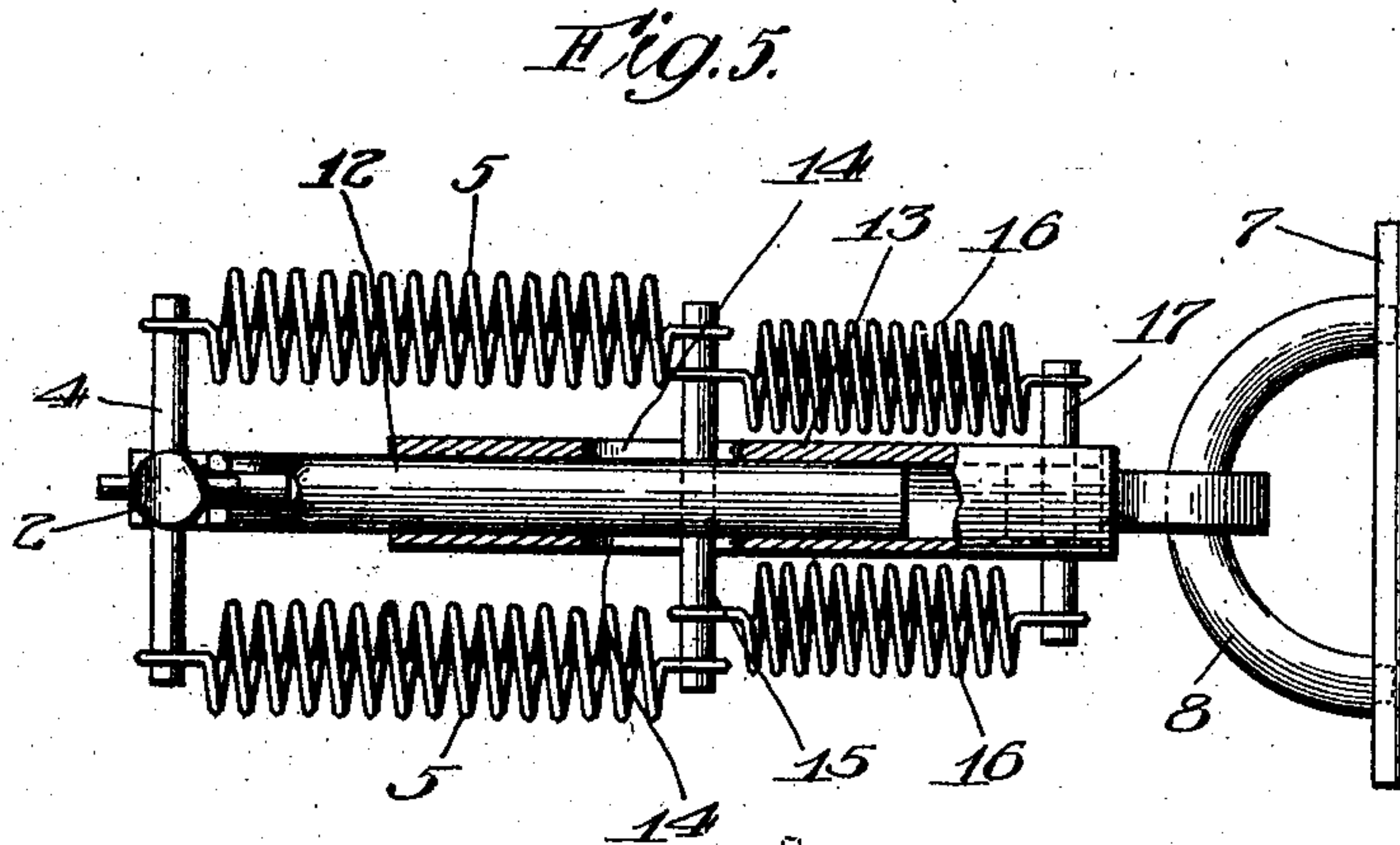
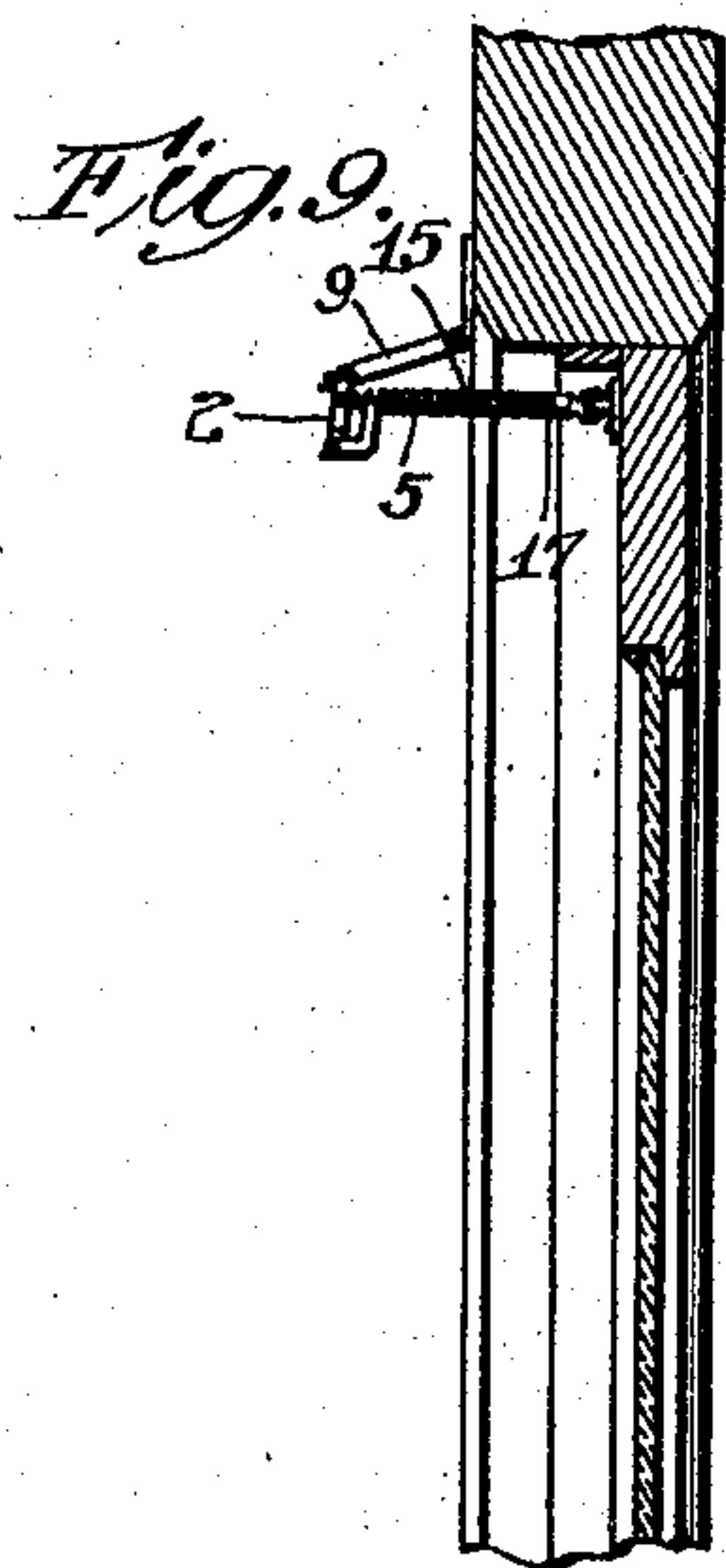
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3 SHEETS—SHEET 2.



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No. 815,432.

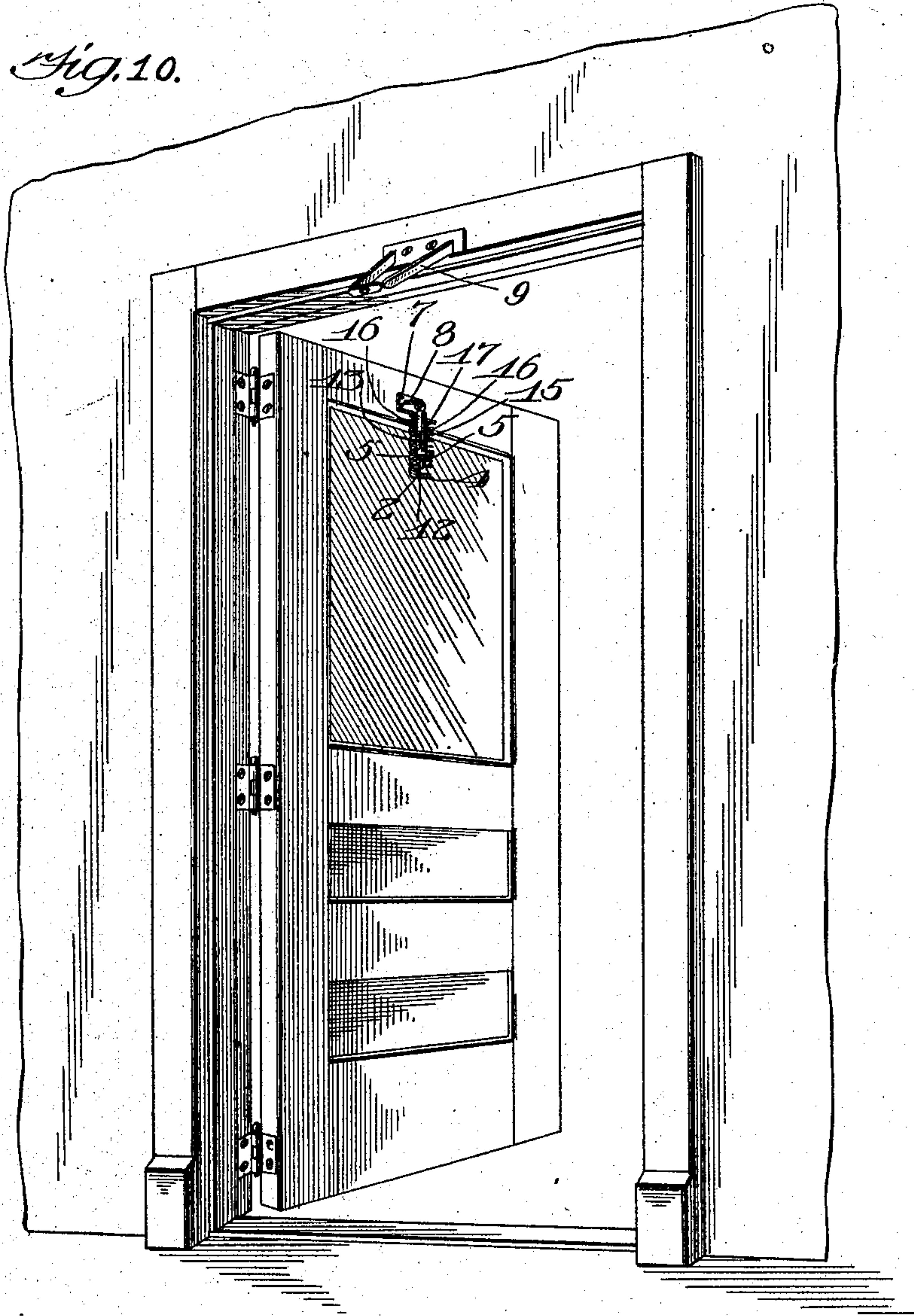
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3 SHEETS—SHEET 3.

Fig. 10.



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UNITED STATES PATENT OFFICE.

GILBERT B. JOHNSON, OF CHICAGO, ILLINOIS.

TEMPORARY DOOR-RETAINER AND THE LIKE.

No. 815,432.

Specification of Letters Patent.

Patented March 20, 1906.

Application filed January 23, 1905. Serial No. 242,209.

To all whom it may concern:

Be it known that I, GILBERT B. JOHNSON, a citizen of the United States of America, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Temporary Door-Retainers and the Like, of which the following is a description.

My invention is particularly designed to temporarily retain a door or like part suitably closed, but in such a manner that any undue pressure upon the door—from the interior, for example—will serve to release it and permit it to open without any further manipulation.

My device is particularly applicable for use upon the exits of theaters, public halls, and the like, where positively-latched exit-doors have resulted in an appalling loss of life.

The object of my improvement is to make disasters arising from positively locked or latched exit-doors impossible and a thing of the past.

To this end my invention consists in the novel construction, arrangement, and combination of parts herein shown and described, and more particularly pointed out in the claims.

In the drawings, wherein like reference characters indicate like or corresponding parts, Figure 1 is a side elevation of a simple form of my device, showing the same in operative position. Fig. 2 is a top plan of the same. Fig. 3 is an elevation similar to Fig. 1, showing a slightly-modified form. Fig. 4 is a similar elevation showing a simple modification permitting a reversal of the positions of the two members. Fig. 5 is a top plan of the preferred form of construction. Fig. 6 is a side elevation of the same, the stationary member being shown in dotted lines. Fig. 7 is an end elevation of the same. Fig. 8 is a cross-section in line 8 8 of Fig. 6, and Fig. 9 is a sectional view showing the relative positions of the parts when in operative position on a door or the like. Fig. 10 is a perspective view of a door, showing the device disengaged.

Broadly speaking, my invention comprises a device designed to be secured to a door or the like part or in proximity thereto in such a manner that by the engagement of the device with a suitable part the door will be temporarily or, I might say, loosely retained in its closed position, but upon pressure being

applied thereto in a direction tending to open it the device will become disengaged and the door readily open without obstruction. In the preferred form resilient means are employed to aid in perfectly holding the door closed, and sufficient pressure upon the door is necessary to overcome the resilient means before the door will open. This serves to prevent the accidental release of the door.

In the simple form shown in Figs. 1 to 3, inclusive, 1 is a member loosely secured to the door and provided with an extension 2, pivotally connected to the part 1, as at 3. Fig. 9 shows arrangement of the parts as applied for operation, the preferred form of retainer, as in Figs. 5 to 8, being shown with a door and door-frame. The arrangement of the simple forms of retainers shown in Figs. 1 to 3, inclusive, is similar to Fig. 9, while the form shown in Fig. 4 is arranged in a reversed position, but in a substantially similar manner. The extension carries a cross-bar 4, which serves as means for the engagement of the ends of suitable springs 5 5, which at their other ends are engaged with a similar bar 6 or equivalent means. In the preferred form also the member 1 is pivotally connected with a suitable base 7, as at 8, so that as the member is disengaged from its cooperating part it will drop down against the door out of the way. The end of the extension 2 engages with a suitable part 9, the drawings indicating the position of the device when holding a door or the like temporarily closed. When pressure in the direction indicated by the arrow is put upon the door to open it, the resilient means tend to still hold it closed. The continued opening of the door causes a pivotal movement of the extension 2 about the center 3, thus causing the parts to be finally disengaged and the door released.

While it is possible for the device to be so positioned as to permit the extension 2 or its equivalent for the purpose to directly engage the frame of the door and cooperate therewith to hold the door closed, the preferred construction contemplates a cooperating member 9, carried by the frame, to more conveniently accomplish that purpose. As shown, the cooperating member 9 is conveniently secured to the frame to engage the extension 2, whereby, as will be readily seen, the door will be held closed until such time as sufficient pressure is put upon it to overcome the springs, and thus release the parts. During the time the device is necessary—for ex-

ample, during the time an audience is in the room—all other locks, latches, or checks are disconnected. In such use also all knobs, handles, &c., are preferably dispensed with on the reverse side of the door, by means of which the device could be operated from outside sources.

In Fig. 1 the extension is in the form of a gooseneck, and as the door is opened the pressure forces the extension 2 around the point 3 as a center and the point of connection 4 passes below the straight line through the points 3 and 8, and the resiliency of the springs then tend to jerk the neck downward and backward out of engagement with the part 9 or its equivalent, thus aiding in the prompt release of the parts. In Fig. 3 the extension 2 is a straight bar, as shown. Either form is effective for the purpose described.

In the form shown in Fig. 4 the position of the two members is reversed. As here shown the member 1 is secured to the frame, while the member 9 is secured to the door. As shown, the extension 10 is pivotally connected between its ends to the member 1, with one or more springs 11 resiliently connecting one end with the member or to an equivalent point for the purpose, while the free end is adapted to engage the member 9, carried by the movable part. The operation is substantially the same and the result precisely the same.

In the more elaborate and preferred form (shown in Figs. 5 to 9, inclusive) the member 1 comprises a bar 12, telescopically engaging a tube 13. A longitudinal slot 14 is formed in the tube, in which is positioned the pin 15, carried by the bar 12. The springs 5 5 are at their inner ends engaged with the ends of the pin 15. A pair of supplemental springs 16 16, preferably of less strength than the springs 5 5, also connect the extending ends of the pin 15 with a suitable connection near the base of member. As shown, a transverse pin 17 is provided for that purpose. In this form the two members are perhaps more readily and easily engaged, while at the same time slight vibration or movements of the door are compensated for by the lesser springs 16 16. When pressure is applied to the door to open it, the bar 12 is pulled out of the tube 13 until the pin 15 reaches the limit of its movement in the slot 14, when continued pressure on and movement of the door causes the extension 2 to become disengaged

from the member 9 and the door to become entirely released from any retainer.

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

1. In a device of the kind described, a retaining member arranged to temporarily connect a movable door or the like with a fixed part, in combination with disengaging means carried by said member, means for yieldingly maintaining said members in operative position, whereby pressure on said door will automatically disengage the same and permit it to open.

2. A device of the kind described, comprising a member provided with a resilient latch, in combination with a cooperating part arranged to be loosely engaged by said latch, whereby when one of said members is secured to a comparatively fixed part and the other to a movable part the two will be resiliently engaged and may be readily disengaged by pressure upon the movable part.

3. In a device of the kind described, a member comprising a bar telescopically arranged within a tube carried by a standard or base and carrying a latch, in combination with resilient means arranged to retain the latch in its normal position, substantially as described.

4. A device of the kind described, comprising a tube, a bar telescopically carried by said tube and provided with a latch member, a slot-and-pin connection between the bar and the tube permitting a limited relative longitudinal movement between the two, in combination with resilient connections between the latch and the slot-pin and resilient connections also between said pin and a point near the rear of the tube, substantially as and for the purpose set forth.

5. A device of the kind described, comprising the combination of a bar provided with means for attaching the same in position, with a base-piece adapted to be attached in position, provided with a pivotally-supported resilient latch member cooperating with said bar and automatically releasable therefrom on pressure in opposition to said resilient means.

In testimony whereof I have hereunto signed my name in the presence of two subscribing witnesses.

GILBERT B. JOHNSON.

Witnesses:

ROY W. HILL,
CHARLES I. COBB.