

No. 725,577.

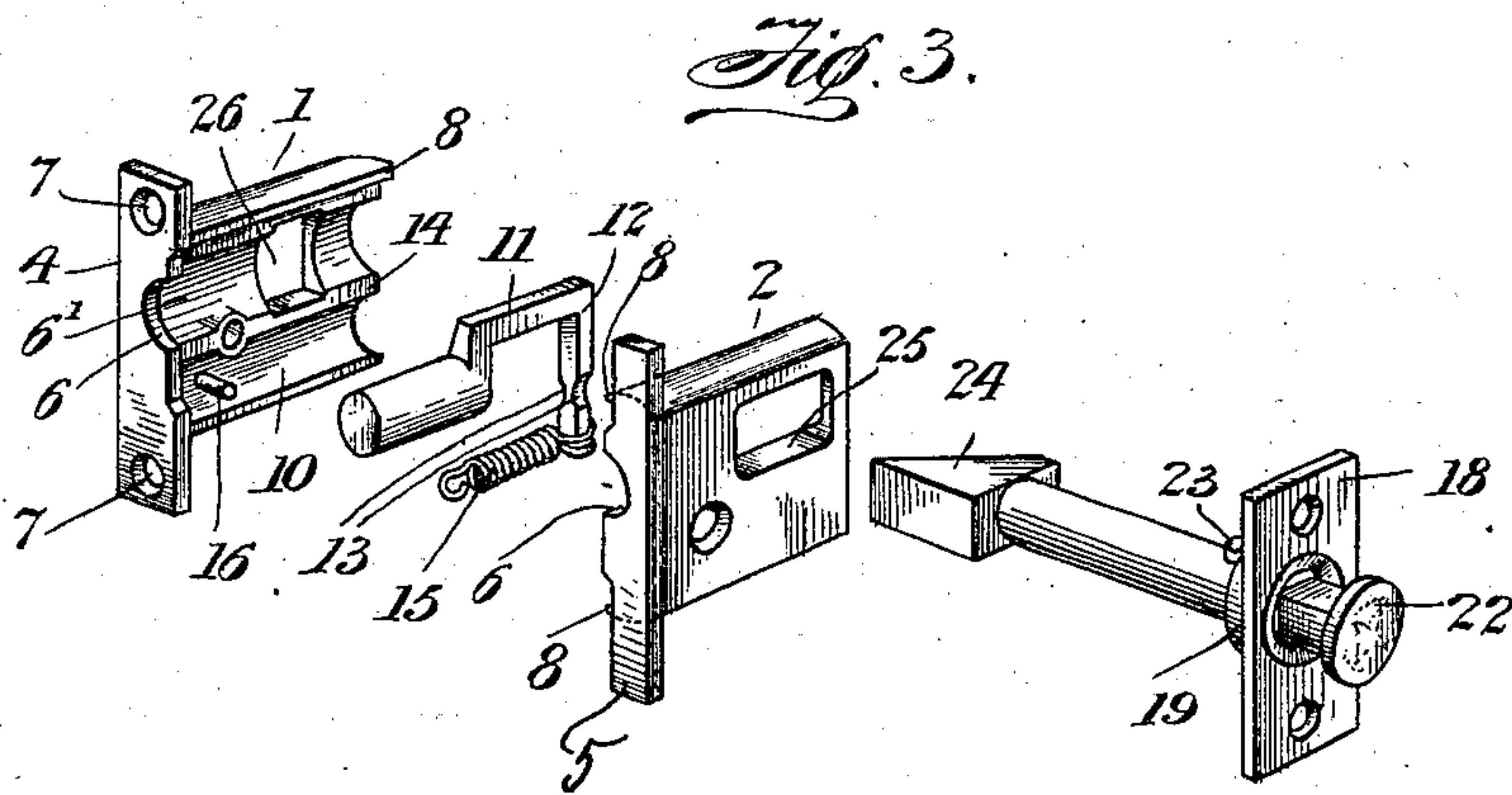
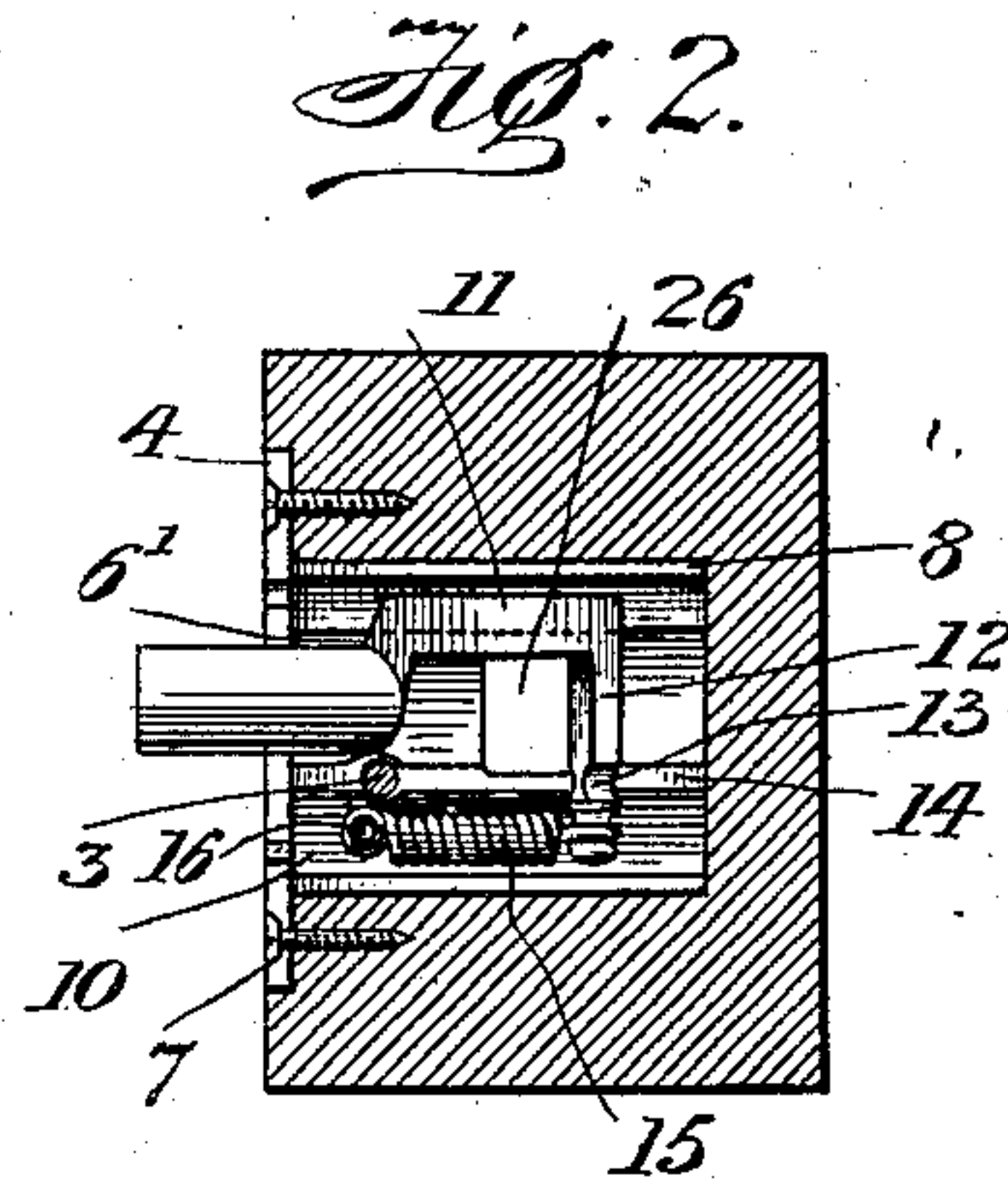
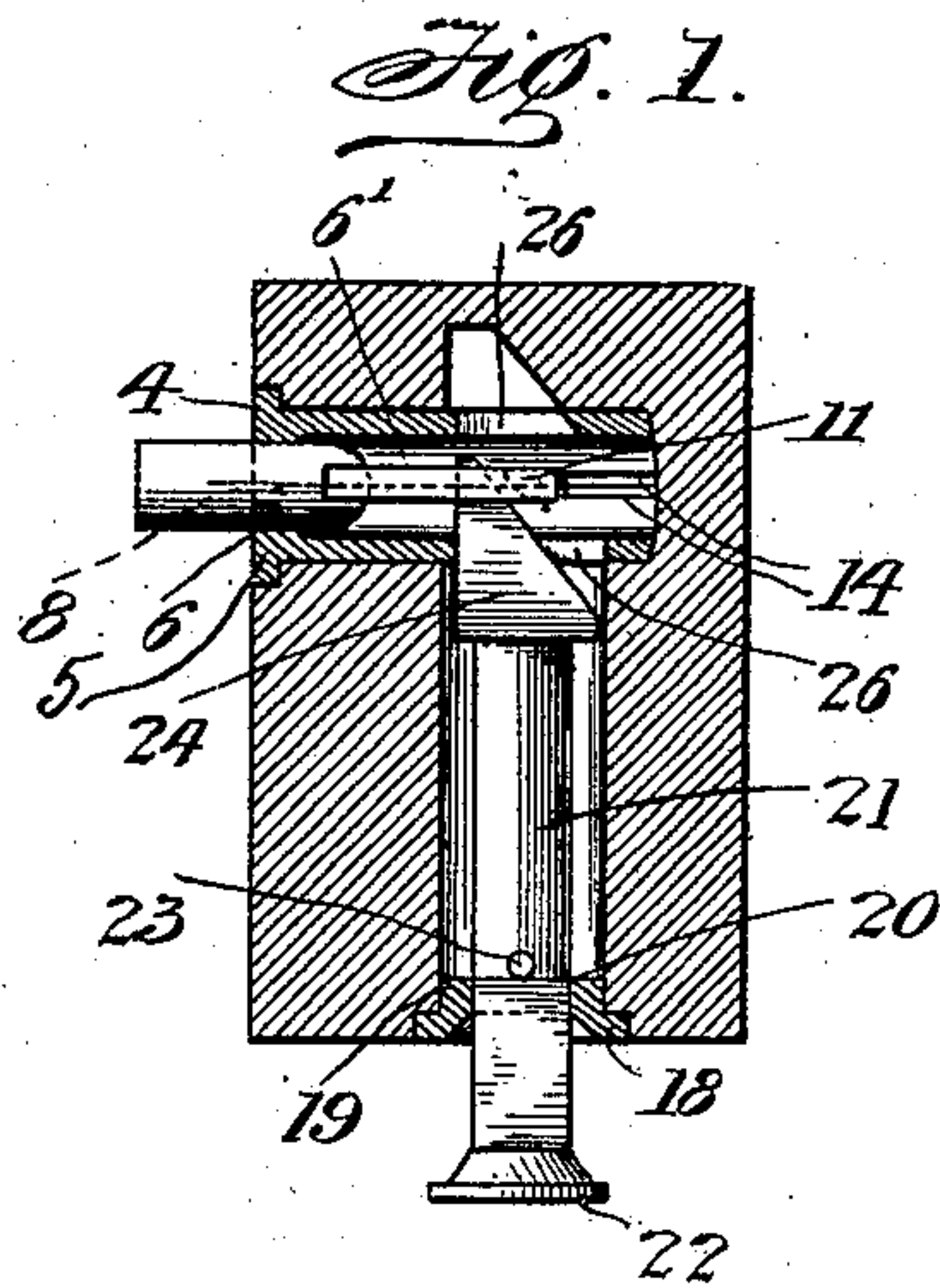
PATENTED APR. 14, 1903.

J. D. MILLER.

SASH LOCK.

APPLICATION FILED DEC. 26, 1902.

NO MODEL.



Witnesses
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UNITED STATES PATENT OFFICE.

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SASH-LOCK.

SPECIFICATION forming part of Letters Patent No. 725,577, dated April 14, 1903.

Application filed December 26, 1902. Serial No. 136,685. (No model.)

To all whom it may concern:

Be it known that I, JOHN D. MILLER, a citizen of the United States, residing at San Antonio, in the county of Bexar and State of Texas, have invented a new and useful Sash-Lock, of which the following is a specification.

This invention relates to certain improvements in locking devices for use in connection with sashes, blinds, and the like, and has for its principal object to provide a locking device of extremely simple and economical construction, the number of parts being reduced to a minimum and the construction being such as to materially reduce the expense of manufacture.

A further object of the invention is to provide a sash-lock which may be readily placed in position and which will not in any manner detract from the appearance of the sash, the only portion of the mechanism exposed to view being in the form of an ornamental push-button, which may be made to resemble the ordinary push-button used for closing electric circuits.

With these and other objects in view the invention consists in the novel construction and arrangement of parts hereinafter described, illustrated in the accompanying drawings, and particularly pointed out in the appended claims, it being understood that various changes in the form, proportions, size, and minor details of the structure may be made without departing from the spirit or sacrificing any of the advantages of the invention.

In the accompanying drawings, Figure 1 is a sectional plan view of a sash-lock constructed in accordance with my invention. Fig. 2 is a longitudinal sectional elevation through the bolt-guiding casing. Fig. 3 is a detail perspective view showing the several members of the sash-lock detached.

The device forming the subject of the present invention is intended especially for use in connection with the sliding sashes of passenger railway-cars, the operating member being carried by the sash-frame and the bolt being movable into and out of engagement with the number of openings formed in the side of the movable sash, although it may be employed in connection with windows or blinds of any character. The bolt-casing is

formed of two sections 1 and 2 of somewhat similar construction and secured to each other by a screw 3. The front plate of the bolt-casing is divided into two sections 4 and 5, one of the sections being formed integral with each of the sections of the casing and each being provided with a semicircular recess 6 to form a passage for the bolt. The separating-line of the members of the front plate does not extend in the plane of the axis of the bolt from end to end of said plate, the section 4 being offset in order to increase the area of the plate, so that the screw-receiving openings 7 may be formed therein as well as to form a lock or holding device for preventing independent movement of the two sections in a direction lengthwise of said plate.

At the upper and lower edge of each section of the casing are flanges or ribs 8, those of the section 4 being in a plane below the edge of the offset portions of the front plate, so that the ends of the corresponding ribs of the opposite section shall be seated against the rear face of this portion of the plate and prevent the withdrawal of the member or section 2 of the lock-casing, so that the screws which pass through the openings 7 may be relied upon to hold the casing in position.

In alinement with the bolt-recesses 6 are recesses 6', of somewhat larger area, into which the bolt may freely pass, the recesses being enlarged at this point in order to avoid any unnecessary expense in finishing. At a point below and parallel with the recesses 6' are elongated and substantially semicircular recesses or grooves 10, which form a space for the reception of the coiled spring employed to normally maintain the bolt in locking position.

The bolt proper is substantially cylindrical in form and is guided in the opening formed by the recesses 6, while at the rear or inner end of said bolt and formed integral therewith is a shank comprising arms 11 and 12, arranged at a right angle to each other and angular, or substantially so, in cross-section. The arm 11 is parallel with the line of the bolt proper, but disposed somewhat above the upper edge of said bolt, and is guided in a space formed between the lower edge of the flanges 8 and the upper edges of the recess 6', this guiding-surface being preferably fin-

ished in order to allow the bolt to work without undue friction. The forward end of the arm 11 abuts against the inner face of the vertical plate at the front of the casing, which forms a fixed stop for limiting the extent of outward movement of the bolt. The arm 12 is provided with oppositely-disposed recesses 13, which bear on flanges or webs 14 between the two recesses 6' and 10, this web or flange being finished and serving, when in engagement with the recesses 13, to prevent lateral play of the rear portion of the bolt. To the lower end of the arm 12 is secured one end of a helical tension-spring 15, the outer end of which is secured to a pin 16, carried by the section 1 of the casing, the pin being of sufficient size to extend completely across the two recesses 10 and make contact with the opposite section of the casing to thereby prevent accidental disengagement of the spring.

At the front of the sash-casing is placed an escutcheon 18, having a rearwardly-extending portion 19, in which is formed a rectangular or polygonal opening 20. This opening serves as a guide for the outer end of an operating-rod 21, which terminates in a preferably ornamental push-button 22, the contact of the push-button with the walls of the recess formed in the escutcheon limiting the movement of the rod in one direction, while in the opposite direction the movement is limited by a pin 23 coming into contact with the rear face of the extending portion 19. At the inner end of the rod 21 is a triangular or wedge-shaped block 24, fitting within an opening 25, formed in the section 2 of the casing and its inclined face engaging the inner edge of the arm 12, the latter being preferably slightly inclined for the purpose, while the straight face of the block, or that face parallel with the axis of the rod, bears against the inner wall of the opening 25.

Normally the spring 15 holds the bolt projected in locking position, and when it is desired to move the bolt to releasing position in order to raise or lower the sash the push-button is forced inwardly and the wedge by contact with the inner face of the arm 12 withdraws the bolt from the socket or keeper in the sash, the inner end of the wedge passing through an opening 26 in alinement with the opening 25. To prevent any lateral play of the wedge-bar, it is desirable that the straight face of the wedge shall constantly bear against the inner walls of the two openings 25 and 26, and thus be in a position to act on the bolt without danger of any of the parts being caught or twisted.

The lock, as described, is of the most simple construction, the parts being readily assembled and placed in the desired position, either in the sash-frame, to engage with sockets in the sash, or with the sash proper, to engage with openings in the guiding-frame. When assembled, the members of the casing are mutually interlocked, and the construction is such as to render it necessary to finish

but a small portion of the bolt-guiding surfaces, and thus materially decrease the cost of manufacture.

Having thus described the invention, what is claimed is—

1. The combination in a lock, of a casing formed of a plurality of interfitting sections, the face or bolt-guiding plate being formed of two members integral with the respective sections, the inner portion of one of said sections being provided with shoulders for engagement with the rear of the face-plate forming part of the opposite section, and means for securing the two sections of the casing to each other, a bolt guided within the casing, and means for operating said bolt.

2. The combination in a lock, of a two-part casing each provided with recesses to form two oppositely-disposed bolt-guiding webs, a bolt having on its inner end a transversely-disposed arm provided with recesses for the reception of said webs to prevent lateral play of said bolt, a spring for holding the bolt projected, and means for retracting said bolt.

3. The combination in a lock, of a two-part casing of which each part is provided at its opposite edges with flanges adapted to abut, a bolt guided within said casing, two angularly-disposed arms forming a continuation of the inner end of the bolt and arranged one parallel with the axis of the bolt and the other at a right angle thereto, means for guiding said arms, a spring normally holding the bolt in projected position, and a movable wedge-block adapted to engage one of said arms to retract the bolt.

4. The combination in a lock, of a two-part casing having alining openings in its opposite wall, a wedge member extending across the casing and having a flat surface in engagement with the inner edges of said openings, a spring-projected bolt, and an angularly-disposed arm forming a part of the inner portion of the bolt and adapted to be engaged by the inclined surface of the wedge.

5. The combination in a lock, of a casing including a front plate, a bolt extending through a guiding-opening in said front plate, an arm 11 arranged slightly above and parallel with the bolt, the outer end of said arm forming a stop-shoulder for engagement with the inner face of said casing to thereby limit the outward movement of the bolt, an arm 12 forming a continuation of the arm 11 and arranged at a right angle thereto, a spring secured at one end to a fixed point of the casing and at its opposite end to the arm 12 to normally hold the bolt projected, and a wedge adapted to engage said arm 12 to retract the bolt.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

JOHN D. MILLER.

Witnesses:

FRANK J. CALDWELL,
A. A. GITTINGER.