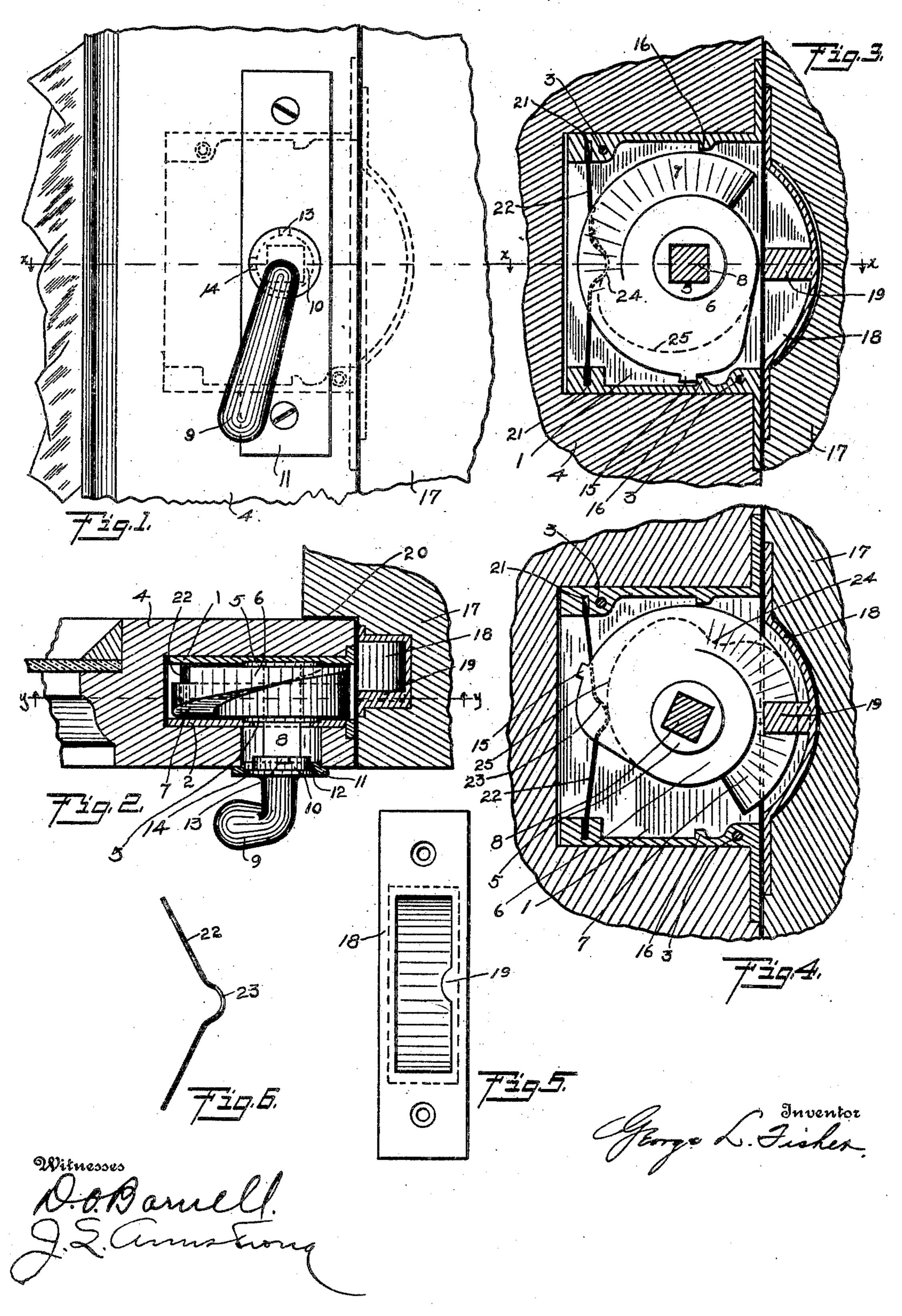
G. L. FISHER.

CASEMENT FASTENER.

APPLICATION FILED AUG. 18, 1904.



UNITED STATES PATENT OFFICE.

GEORGE L. FISHER, OF OMAHA, NEBRASKA.

CASEMENT-FASTENER.

No. 797,768.

Specification of Letters Patent.

Patented Aug. 22, 1905.

Application filed August 18, 1904. Serial No. 221,304.

To all whom it may concern:

Beit known that I, George L. Fisher, a citizen of the United States, residing at Omaha, in the county of Douglas and State of Nebraska, have invented certain new and useful Improvements in Casement-Fasteners, of which the following is a full, clear, and exact description, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to the general class of builders' hardware, and has relation more particularly to fasteners for hinged swinging members, such as casement-windows, refrigerator, and other doors or door-like constructions required to be tightly pressed against their jambs.

It is the object of my invention to provide in a fastener of the above type means for compensating for the variations in size of casements due to changes of temperature and moisture, thereby making it possible to secure the casement in a tightly-closed position under all conditions.

My invention consists in the provision of a cam-body rotatably held within a mortised casing in the stile of a casement, said cambody having thereon a helical surface adapted to be brought into contact with a suitable socket on the casement-jamb, in the means for retaining the cam-body in any position to which it may be turned, in the means for limiting the rotative movement of the cambody, and in certain other novel constructions more fully set forth hereinafter and illustrated in the accompanying drawings, forming a part hereof.

In the drawings, Figure 1 is a view of a portion of a casement and jamb therefor having my fastener applied thereto. Fig. 2 is a transverse section of the fastener-casing, showing the cam-body in open position, the section being on the line x of Figs. 1 and 3. Fig. 3 is a vertical section of the same on the line y y of Fig. 2, also showing the cam-body in open position. Fig. 4 is a similar view showing the closed position of the cam-body. Fig. 5 is a view of the jamb-socket; and Fig. 6 is a detail of the retaining-spring, showing the form of the same when not under tension.

In the construction shown, 1 represents a casing having a removable cover 2, secured thereto by screws 3. The said casing is adapted to be mortised into the stile 4 of a casement and held therein in the usual manner. In the rear plate of the casing and in the

removable cover opposite thereto are depressions adapted to receive the hubs 5 of the cam-body 6 and rotatably retain the same within the casing. The cam-body is of the general form shown, and on the front side thereof is a helical surface 7, extending somewhat less than half-way around the outer edge of the same. The remainder of the front surface of the cam-body is flat and adapted to bear against the inner side of the casing.

Through the center of the cam-body is a square opening through which passes the stem 8 of the handle 9. At the outer end of the stem 8 is a disk 10, integral therewith, fitting into the escutcheon 11 and resting against a shoulder 12, formed thereon. A portion of the disk 10 passes through the escutcheon and has a lug 13 thereon extending up behind the shoulder 12. To permit the assembling of the stem and escutcheon, a recess 14 is made in the shoulder 12, as shown in Figs. 1 and 2, to permit the lug 13 to be passed through the same. When the escutcheon has been secured to the casement-stile 4, as shown, the removal of the stem 8 is prevented by the said lug 13. The said lug is prevented from being turned opposite the recess 14 by a projection 15 on the periphery of the cam-body, which projection striking the abutments 16 on the casing limits the possible rotative movement of the cam-body and stem.

In the jamb 17 opposite the casing 1 is secured the socket 18, having a curved recess in the face thereof, at one side of which is the rounded contact projection 19. By turning the handle 9 that portion of the cam-body on which is the helical surface 7 is turned out into the recess in the jamb-socket, and the said helical surface meeting the contact projection therein forces the casement tightly against the jamb-rabbet 20, the helical surface compensating for all variations due to shrinkage or expansion of the meeting parts.

As a means for retaining the cam-body in any position to which the same may be turned I provide the following: At the inner edge of the casing 1 are slots 21, serving to retain in position the ends of a flat spring 22, said spring having a hump 23 at its central part and being bowed toward said hump, as shown in Fig. 6. When the cam-body is in the open position, (shown in Fig. 3,) the humped portion of the spring rests in a depression 24 on the edge and at the rear side of the cambody, as represented by dotted lines in said

figure. In order to turn the cam-body from said position, it is necessary to overcome the resistance of the spring sufficiently to raise the same out of the depression. As the cambody is turned toward the position shown in Fig. 4 and before the helical surface comes into contact with the projection 19 of the jamb-socket the hump 23 of the spring passes out of the depression 24 and rests on the spiral surface 25, as represented by dotted lines in Fig. 4. As the hump 23 rests first at the highest or outermost part of the spiral surface, it will be seen that the tendency of the spring-pressure on the said spiral surface is to force the cam-body farther around and press the helical surface more firmly against the projection 19, thus effectually retaining the cam-body in any position to which it may be turned.

It will be noted that the fastener, as shown, may be used in any position for casements opening at the right or left side, at the top or bottom, and inwardly or outwardly, the casing, jamb-socket, and cam-body being perfectly reversible. It may be also noted in this connection that the handle 9 is placed eccentrically to the stem 8, thus enabling the handle to be used with outwardly-opening casements without interfering with the jamb-rabbet.

While I have shown and described my fastener as particularly applied to casement-windows, it will be understood that the same is applicable to doors or to hinged swinging members of any kind closing against a jamb.

Now, having described my invention, what I claim, and desire to secure by Letters Patent of the United States, is—

1. In a fastener of the class described, a casing mortised into one member of the parts to be held together, a cam-body rotatably held

within the casing, an inclined surface on the cam-body, a socket placed in the other member of the parts to be held together and adapted to be engaged by the inclined surface of the cam-body, means for turning the cambody to engage the inclined surface thereon with the socket and to disengage the same therefrom, and means for retaining the cambody in disengaged position when turned thereto, the same means tending to move the cam-body into engagement after the same is started from the disengaged position.

2. In a fastener of the class described, a casing, a cam-body rotatably held therein, a helical surface on said cam-body adapted to engage a suitable jamb-socket, a depression in said cam-body, a spring adapted to engage said depression when the cam-body is in open position, and a spiral surface on the cam-body with which the spring is adapted to engage when the cam-body is in closed position.

3. In a fastener of the class described, the combination with a mortised casing of a cambody rotatably held therein, a jamb-socket having a rounded inwardly-extending projection thereon, a helical surface on the cambody adapted to engage the said projection, means for turning the cam-body to force the said surface against the projection, a depression in the cam-body, a spring engaging said depression when the cam-body is in open position, and a spiral surface on the cam-body with which said spring engages when the helical surface is in position to engage the jamb-socket.

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

GEORGE L. FISHER.

Witnesses:

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D. O. Barnell, J. S. Armstrong.