(No Model.)

F. E. RANNEY.

LOCK STRIKE.

No. 475,000. Patented May 17, 1892.

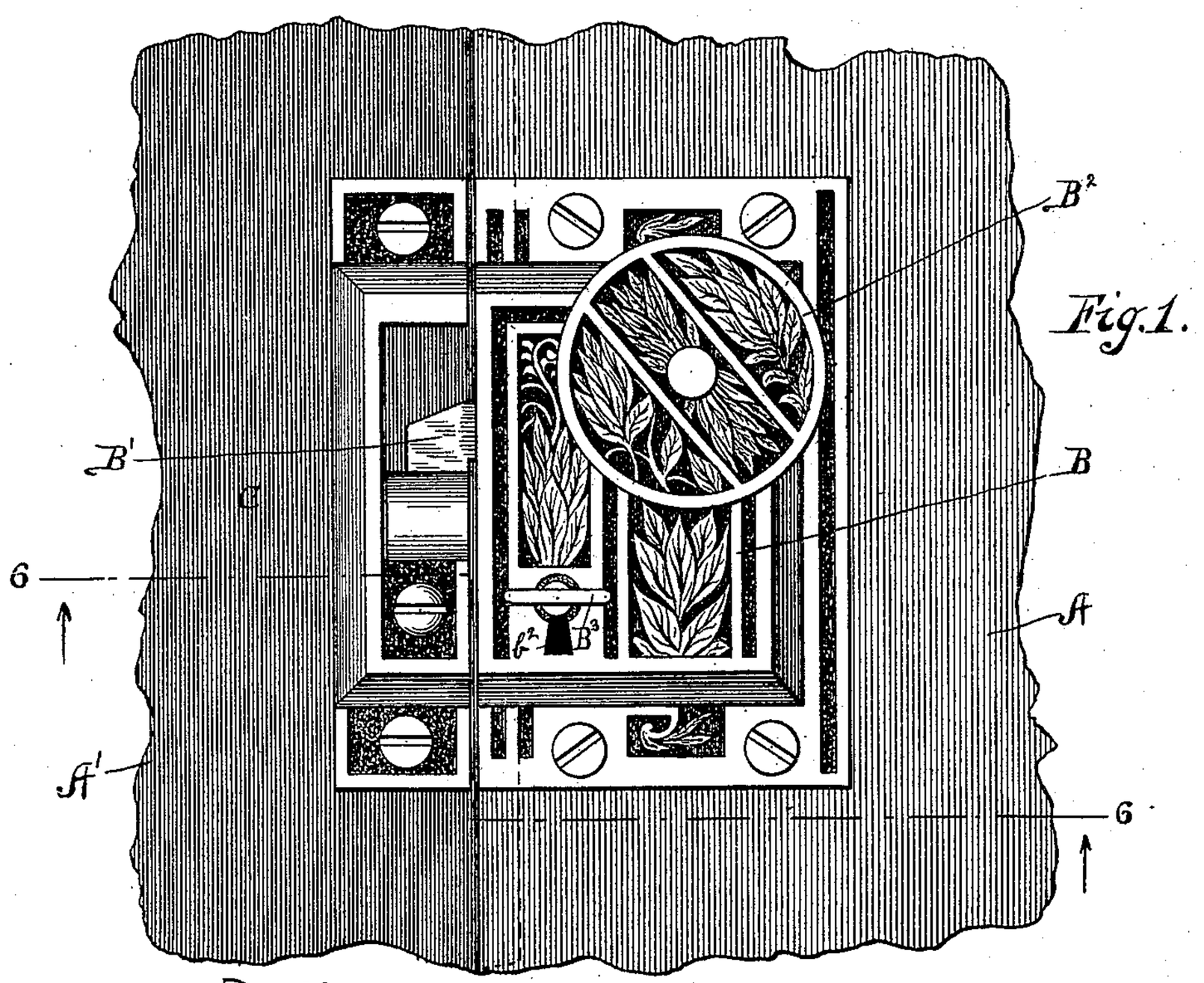

Fig. 1.

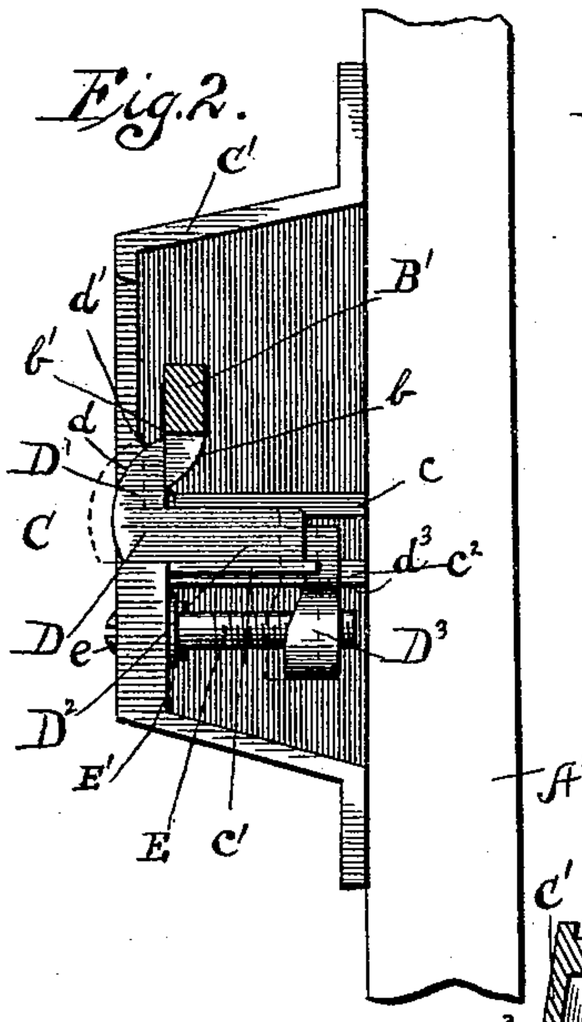

Fig. 2.

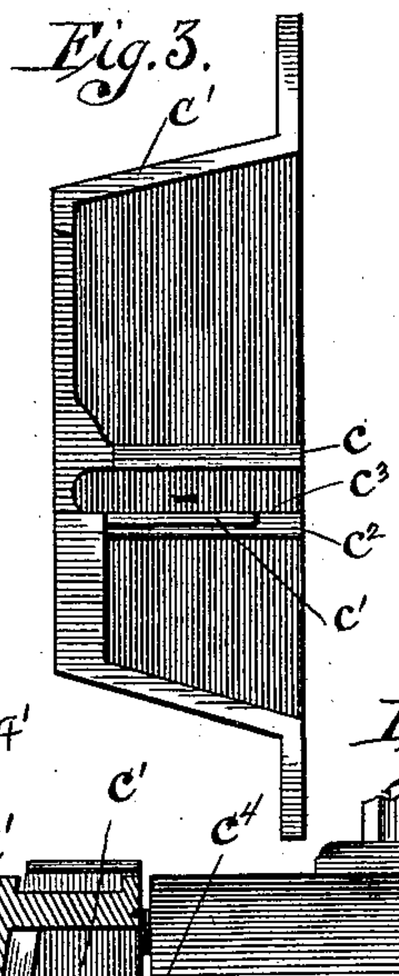

Fig. 3.

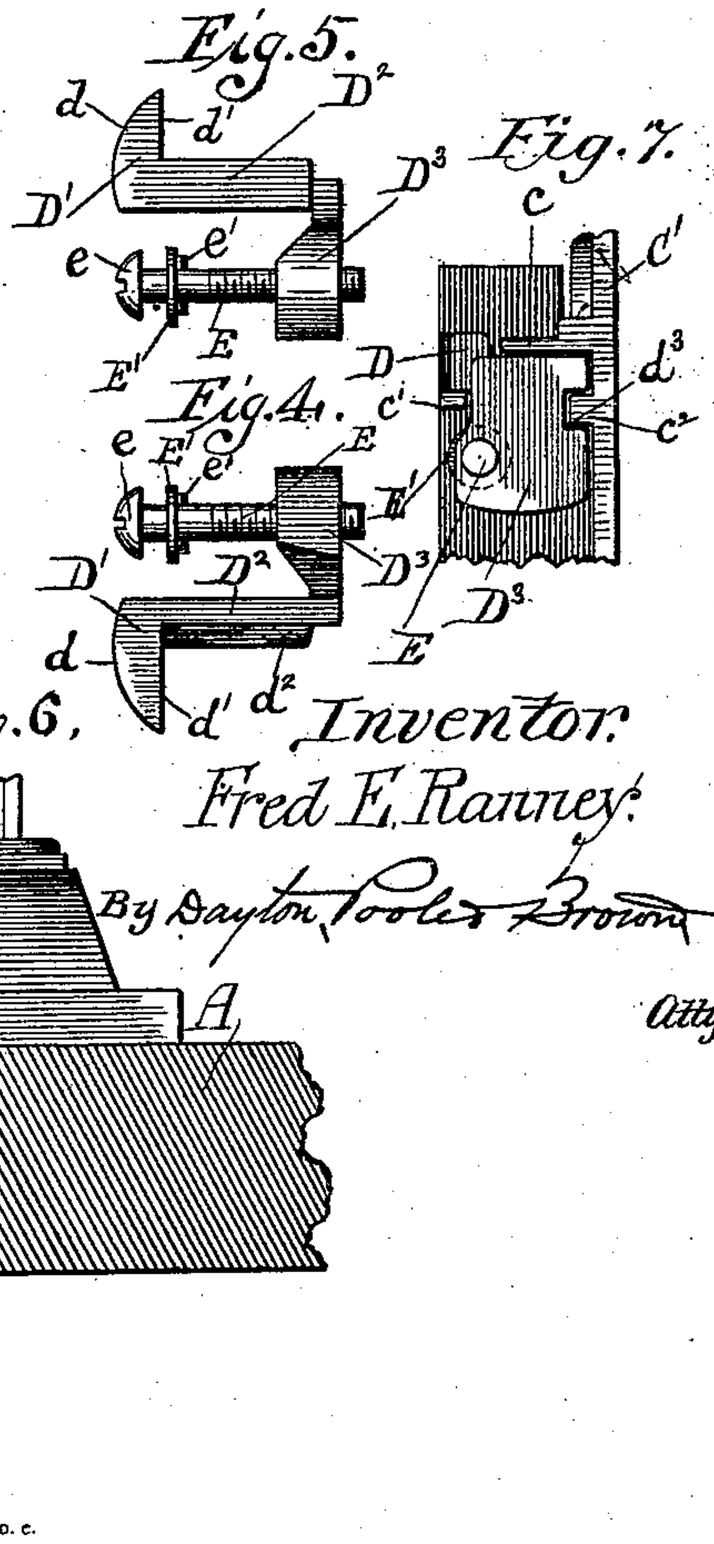

Fig. 5. Fig. 7. Fig. 4.

Fig. 6.

Witnesses
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UNITED STATES PATENT OFFICE.

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LOCK-STRIKE.

SPECIFICATION forming part of Letters Patent No. 475,000, dated May 17, 1892.

Application filed June 23, 1891. Serial No. 397,204. (No model.)

To all whom it may concern:

Be it known that I, FRED. E. RANNEY, of Belding, in the county of Ionia and State of Michigan, have invented certain new and useful Improvements in Locks and Latches; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to latches and locks, and more particularly to that class designed for use in connection with refrigerator-doors and other doors which it is desirable to have close tightly and with certainty.

The object of my invention is to provide means for readily adjusting the parts of the lock or latch relatively to each other, so as to compensate for any shrinking or swelling of the parts to which they are attached; and to this end it consists in the several features of novelty which I will now proceed to describe, and will then more particularly point out in the claims.

In the accompanying drawings, Figure 1 is a front elevation of a lock embodying my invention. Fig. 2 is a side elevation of the keeper and its casing, the catch or latch proper being shown in section. Fig. 3 is a similar view of the casing of the keeper detached. Fig. 4 is an elevation of one side of the keeper proper detached. Fig. 5 is a similar view of the opposite side thereof. Fig. 6 is a bottom plan section taken on the line 6 6 of Fig. 1 and looking in the direction of the arrows. Fig. 7 is a detail rear elevation of a portion of the keeper.

In the drawings, A represents a portion of the door or door-stile, and A′ a portion of the door casing or stile of the door-casing. Upon the door A is mounted a lock B, the detailed construction of which is immaterial, the form shown being a well-known one, provided with an upwardly-yielding spring-depressed catch or latch B′. This latch is operated by means of a knob B^2 and is provided with a curved or inclined rear striking-face *b* and a plane front locking-face *b′*. The lock is also provided with a key-hole b^2 to receive a key B^3, by means of which the catch or latch B′ may be locked in the position shown.

The keeper C is mounted on the door-casing stile A′ and consists of the usual casing C′ and an adjustable keeper proper D, which latter is mounted on suitable ways in the casing and is held and adjusted therein by means of a screw E. The detailed construction which I prefer and have devised for this purpose is that shown in the drawings, in which the casing C is provided with parallel guide-plates *c* and *c′* and a guide-rib c^2, forming the ways between which the keeper proper slides. The lower guide-plate *c′* is cut away at the rear, as shown at c^3 in Fig. 6, leaving a short rearwardly-projecting tongue c^4, which is an extension of the said guide-plate *c′*. The keeper proper D is composed of a vertical body portion D′, having a curved or inclined front striking-face *d* and a plane rear locking-face *d′*, and of a rearwardly-extending shank D^2, adapted to fit between the guide-plates *c* *c′* and having a lateral upwardly-extending flange d^2 of a height about equal to the thickness of the upper guide-plate *c*, the edge of which it covers. At the rear end of the shank D^2 there is formed a downward extension D^3, adapted to fit in the cut-away space c^3, between the tongue c^4 and guide-rib c^2, being provided with a notch d^3 to receive said guide-rib. The lower portion of the downward extension D^3 is provided with a threaded aperture to receive the adjusting-screw E. This screw passes through an unthreaded aperture in the front wall of the casing C′ and is provided on the outer side of said wall with the usual slotted head *e* or other suitable means by which it may be rotated. Inside of said wall there is mounted on said screw a washer E′, held in position by a pin *e′*, said washer serving, in conjunction with the head *e*, to prevent longitudinal movement of the screw while leaving it free to be revolved.

In the case of refrigerator and other doors it frequently happens, owing to the swelling or shrinking of the parts, that the door either cannot be entirely closed, "sticking" before it latches, or in closing passes beyond the normal limit of its motion, hanging loosely and free to vibrate between its seat and the point where the locking-faces of the latch and keeper are in contact. Both of these conditions are manifestly undesirable. The ob-

jections attendant thereon may be obviated by the use of the construction just described, since it will be at once seen that the keeper proper D may be readily adjusted in or out through the medium of the screw E, so as to assume such a position that at the limit of the door's motion the catch or latch B′ thereof will just pass over and downward behind the body D′ of the keeper and hold the door firmly and tightly closed. It will be noted that the keeper is adjustable in the direction of motion of the door and that the adjusting-screw is accessible at the exterior of the casing when the door is closed and the latch in engagement with the keeper proper. By reason of this the door may be closed to the proper extent and the keeper proper then adjusted to its proper position relatively to the latch, said latch thus acting as a gage to determine the position of the keeper proper. Only a small range of adjustment is necessary to obtain the desired end, and this range is in the construction shown limited in one direction by the contact of the rear face d' of the body D′ with the front edge of the upper guide-plate c, and in the other direction by the contact of the front face of the extension D^3 with the rear edge of the lower guide-plate c', within the cut-away space c^3. The extension c^4 of the guide-plate c' prevents lateral displacement of the keeper proper D in one direction, while the flange d^2 and guide-rib c^2 prevent displacement thereof in the opposite direction.

I do not wish to be understood as limiting myself to the form of adjusting, guiding, and supporting devices shown and described, as it is obvious that these devices may be modified in various ways without departing from the principal of my invention; nor is the invention limited in its application to the particular form of lock shown and described, as it may obviously be used in connection with other forms of locks and latches.

What I claim is—

1. The hereinbefore-described keeper for locks or latches, comprising a casing, a keeper proper movable in said casing in the direction of motion of the door, and an adjusting device accessible at the exterior of the casing when the latch is in engagement with the said keeper, said adjusting device extending into the casing and positively engaging the keeper proper to adjust the same in either direction, substantially as and for the purpose specified.

2. The hereinbefore-described keeper for locks or latches, comprising a casing provided with guideways extending in the direction of the motion of the door, a keeper proper mounted on said casing and adapted to slide in said guideways, said keeper having stops to limit its movement in each direction, and an adjusting-screw mounted to revolve in the casing and engaging the keeper proper, substantially as described.

3. The combination, with a casing having guideways c c', the latter cut away at c^3 to form a tongue c^4, of a keeper proper D, having a shank D^2 to fit between the ways c c', an upwardly-extending body D′ at the front end of said shank and a downward extension D^3 at the rear end thereof, and an adjusting-screw mounted to revolve in the casing and engaging a threaded aperture in the said downward extension D^3, substantially as described.

In testimony that I claim the foregoing as my invention I affix my signature in presence of two witnesses.

FRED. E. RANNEY.

Witnesses:
W. J. WILSON,
FRANK H. TOTTEN.