

(No Model.)

2 Sheets—Sheet 1.

J. D. PERKINS.
LOCK AND LATCH.

No. 511,454.

Patented Dec. 26, 1893.

FIG. 1.

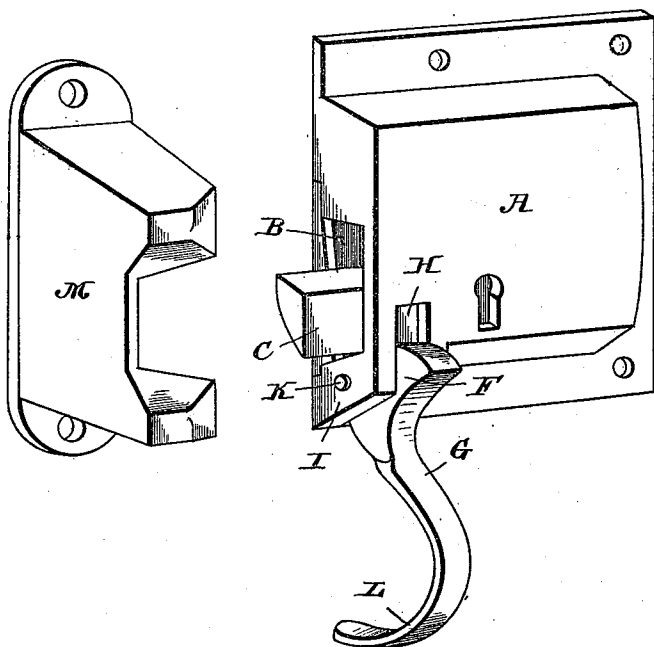


FIG. 3.

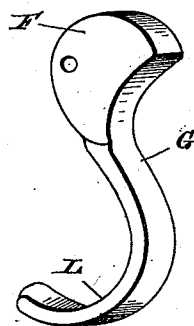


FIG. 2.

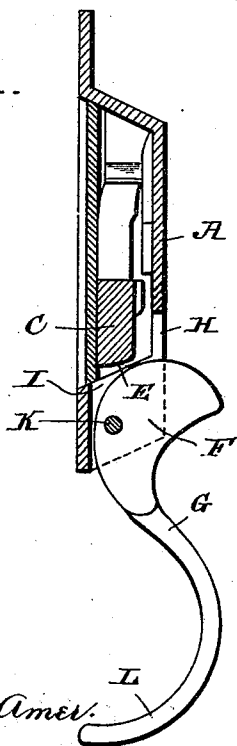
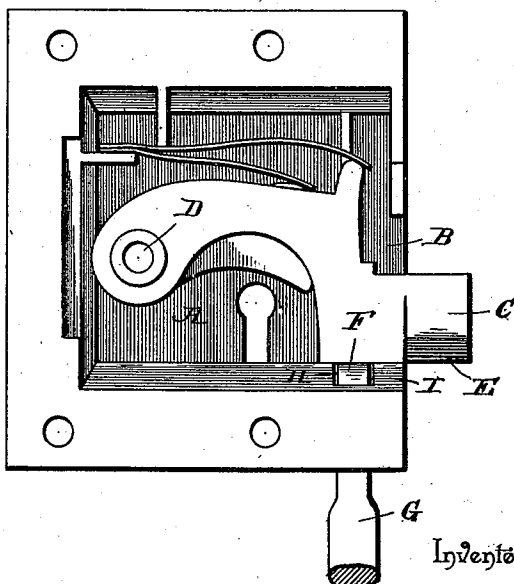


FIG. 7.



Witnesses

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(No Model.)

2 Sheets—Sheet 2.

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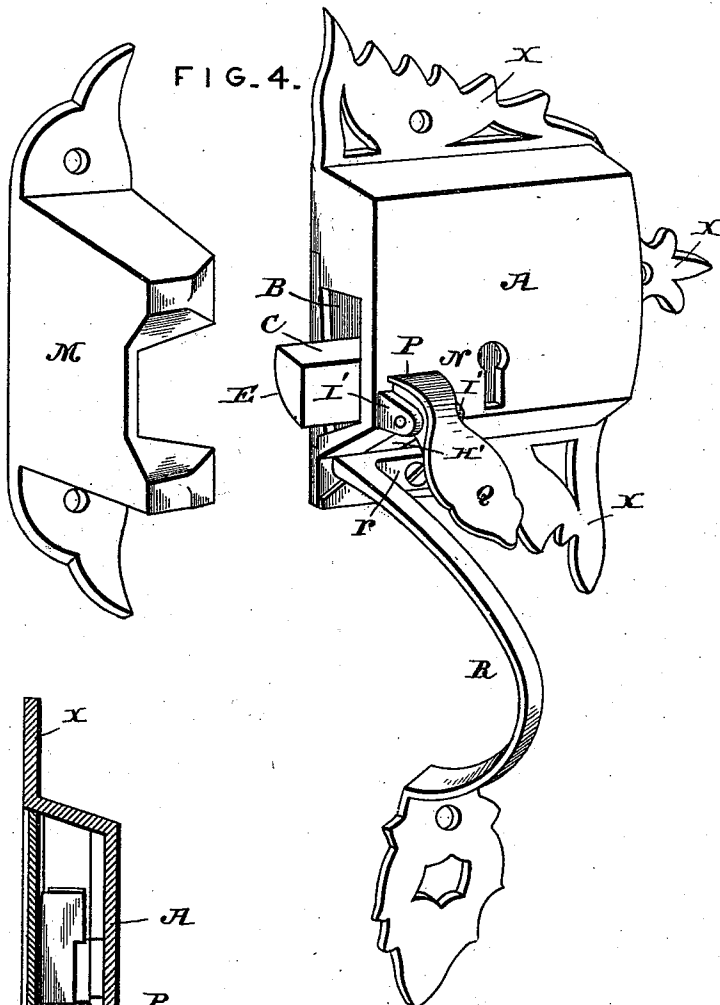


FIG. 5.

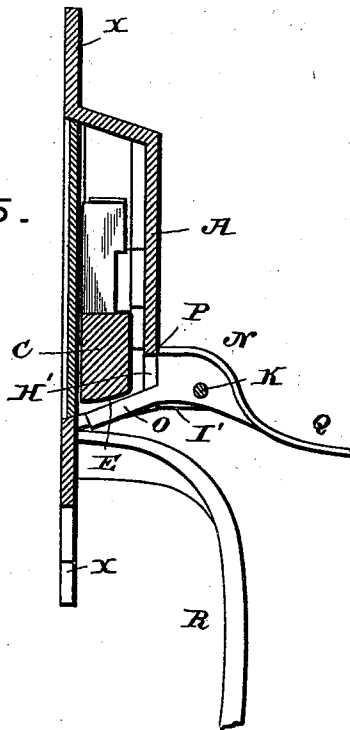
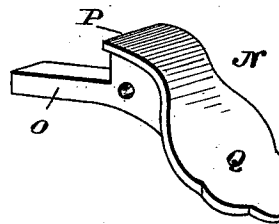


FIG. 6.



Witnesses

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UNITED STATES PATENT OFFICE.

JOHN D. PERKINS, OF KENTON, OHIO.

LOCK AND LATCH.

SPECIFICATION forming part of Letters Patent No. 511,454, dated December 26, 1893.

Application filed February 24, 1893. Serial No. 463,617. (No model.)

To all whom it may concern:

Be it known that I, JOHN D. PERKINS, a citizen of the United States, residing at Kenton, in the county of Hardin and State of Ohio, have invented a new and useful Lock and Latch, of which the following is a specification.

This invention relates to combined locks and latches; and it has for its object to provide certain improvements in devices of this character, and which are especially adapted to be in the nature of improvements on my former patents No. 463,796, dated November 24, 1891, No. 468,895, dated February 16, 1892, and No. 491,742, dated February 14, 1893.

To this end the main and primary object of the invention is to provide an improved latch operating device for the construction of locks shown particularly in my first and last mentioned patents, in order to not only simplify and facilitate the operation thereof, but at the same time to provide an improvement which will relieve the working parts as well as the casing of undue strain in operating the latch, which usually requires considerable force, owing to the fact that locks of the character described and claimed in my former patents are employed in connection with refrigerator and similar doors which must be held tightly against the jamb.

With these and other objects in view which will readily appear as the nature of the invention is better understood, the same consists in the novel construction; combination and arrangement of parts hereinafter more fully described, illustrated and claimed.

In the accompanying drawings:—Figure 1 is a perspective view of a combined lock and latch constructed in accordance with my invention and having a cam or eccentric finger lever used in connection therewith. Fig. 2 is an enlarged vertical sectional view of the construction disclosed in Fig. 1. Fig. 3 is a detail in perspective of the cam or eccentric finger lever. Fig. 4 is a perspective view similar to Fig. 1, showing another form of finger lever in connection with an ornamental casing, and loop handle. Fig. 5 is a view similar to Fig. 2, of the construction shown in Fig. 4. Fig. 6 is a detail in perspective of the finger or thumb lever shown in Figs. 4 and

5. Fig. 7 is a rear view of the lock, the casing back plate being removed.

Referring to the accompanying drawings, A represents a lock casing provided at one end with a latch opening B, in which moves the beveled end of the spring-actuated pivoted latch C. The spring actuated pivoted latch C, is of the same general construction as that shown and described in my former patents of November 24, 1891, and February 14, 1893, with the exception of the handle portion for operating the same, being pivoted at its inner end at D, within the casing. The locking devices for said pivoted latch are the same as described in the patents just referred to.

The pivoted latch C, is provided near its beveled end working through the latch opening, with a lower rounded contact edge E, against which works the rounded cam or eccentric head F, of the finger lever G. The finger lever G, has the rounded cam or eccentric head F, thereof, to work in the front slot H, of the casing, near the front end thereof. The casing A, is extended in a line with its front slot H, into the parallel pivot lugs or ears I, perforated to receive the pivot pin or rivet K, passing therethrough and through the rounded cam or eccentric head of the finger lever. The said finger lever G, is further provided below its point of pivot with a curved finger grasp L, which receives the fingers of the hand when it is desired to draw out the outer end of the finger lever, in order to cause the cam or eccentric head thereof to ride under the pivoted latch within the casing, and lift the same out of the strike or keeper, M, which may be constructed as illustrated, or of any of the patterns shown in my former patents.

In the construction just described, it will be readily seen that by grasping the curved grasp portion of the finger lever and drawing the same out from the door to which the lock is attached, the same motion will not only lift the latch end of the latch out of the strike or keeper, but will at the same time pull open the door, thus rendering the finger lever a handle also.

As illustrated in Figs. 4, 5 and 6 of the drawings, a slight modification of the construction disclosed in Figs. 1, 2, and 3 is ob-

served. In the modification, the casing A, is shown as provided with ornamented attachment flanges X, by means of which the same is attached to the door, but incloses the same latch and lock devices as hereinbefore referred to. The casing A, shown in the figures above referred to is also provided with a front slot H', near the front end of the same and is also extended, in a line with such front slot, into the parallel pivot lugs or ears I', which correspond to those previously described, but are disposed laterally out from the front side of the casing instead of below the lower end thereof as shown in the preferred form. Pivoted between the lugs or ears I' is the finger or thumb lever N, having an inner lifting arm O, working inside the slot H', and the casing, beneath the lower edge of the latch C, near the latch end thereof. The said finger or thumb lever N, is further provided at one side of its point of pivot with the stop shoulder P, adapted to contact with the outer front side of the casing and from which point the lever is extended into a widened thumb portion Q, on which the thumb of the hand is placed to depress the outer end of the lever and lift the arm O, which movement raises the pivoted latch out of its strike or keeper as will be readily apparent.

In order to manipulate the lever N, with the thumb, and at the same time pull open the door after lifting the latch, in a manner similar to that contemplated by the preferred construction, I employ the loop handle R. The loop handle R, is disposed at an angle below the lock casing shown in the modification, and has one end thereof attached to the door and its other end, at r, to the lower attaching flange of the casing. Now it will be readily seen, that by passing the fingers of the hand into the handle R, and placing the thumb on the widened thumb portion Q, of the lever N, the same can be readily manipulated so as to lift the latch, and also to open the door at the same time.

Both of the constructions herein described provide means whereby in operating the latch, the inner working parts of the latch and lock are entirely free from any undue strain as

well as the casing, which is generally the case where the latch lever is pivoted on a pivot inside of the casing, and which also forms a pivot and support for other parts of the latch and lock.

The herein-described improvements can be readily attached to all locks of the class described employing pivoted latch levers, and I will have it understood that changes in the form, proportion and the minor details of construction as embraced within the scope of the appended claims, may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In a lock, the combination of the casing having a front slot near one end and parallel pivot lugs extended beyond and from both sides of the slot, a spring-actuated latch pivoted at one end within the casing, and provided with a lower rounded contact edge lying adjacent to the front slot of the casing, and a single finger lever pivoted at its inner end between said parallel pivot lugs and adapted to have its inner extremity contact with the lower rounded edge of said latch, substantially as set forth.

2. In a lock, the combination of the casing having a front slot near one end and parallel pivot lugs extended beyond and from both sides of said slot, a spring-actuated latch pivoted at one end within the casing and provided with a lower rounded contact edge lying adjacent to the front slot of the casing, and a single finger lever pivoted at one end between said parallel pivot lugs, said finger lever being provided at its inner end with an enlarged cam or eccentric head, the rounded edge of which bears against the rounded contact head of said latch, and an outer curved finger grasp, substantially as set forth.

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

JOHN D. PERKINS.

Witnesses:

HAMILTON E. HOGE,
HENRY J. MAY.