(No Model.)

J. D. PERKINS.

LATCH AND LOCK.

No. 491,742. Patented Feb. 14, 1893.

Fig. 1.

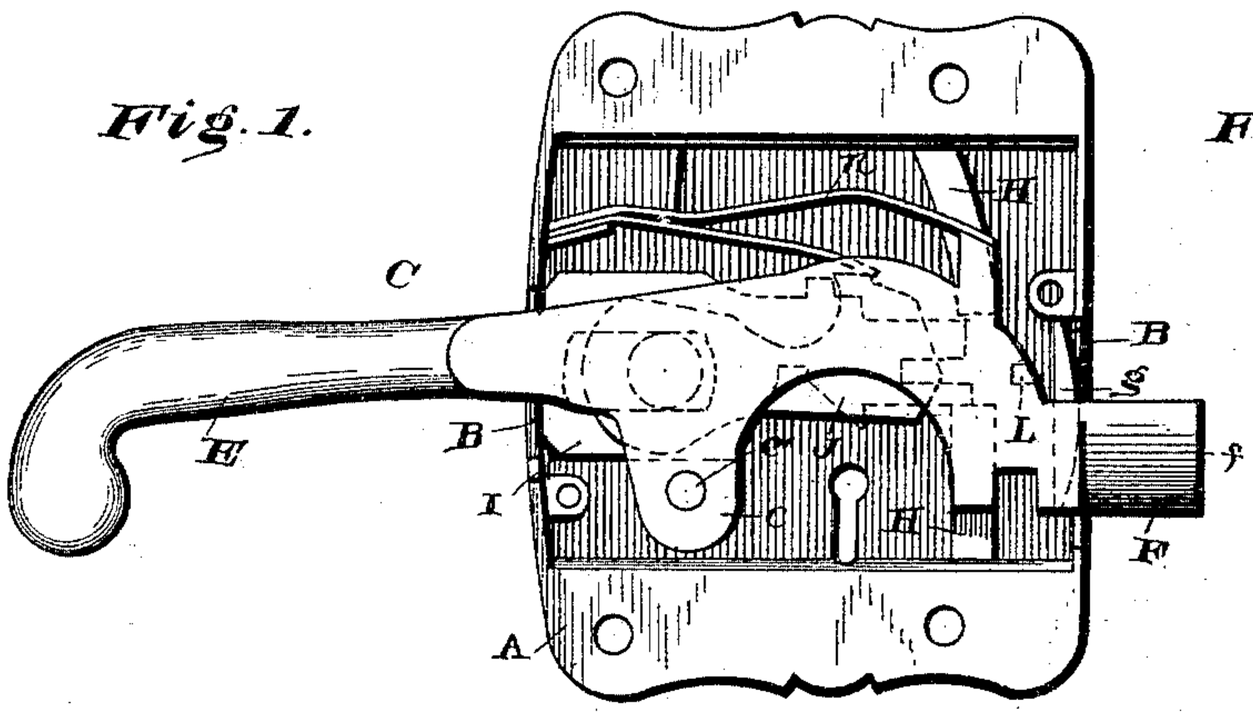


Fig. 2.

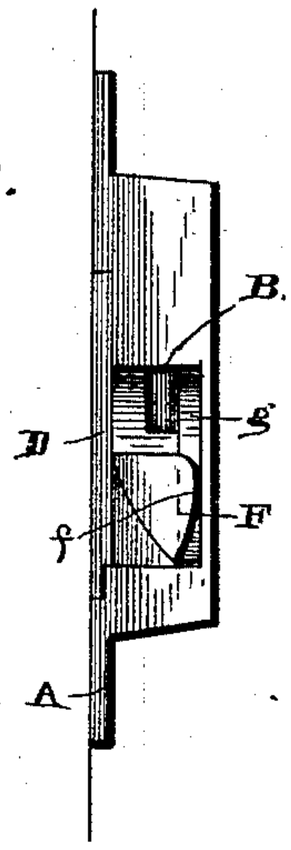


Fig. 3.

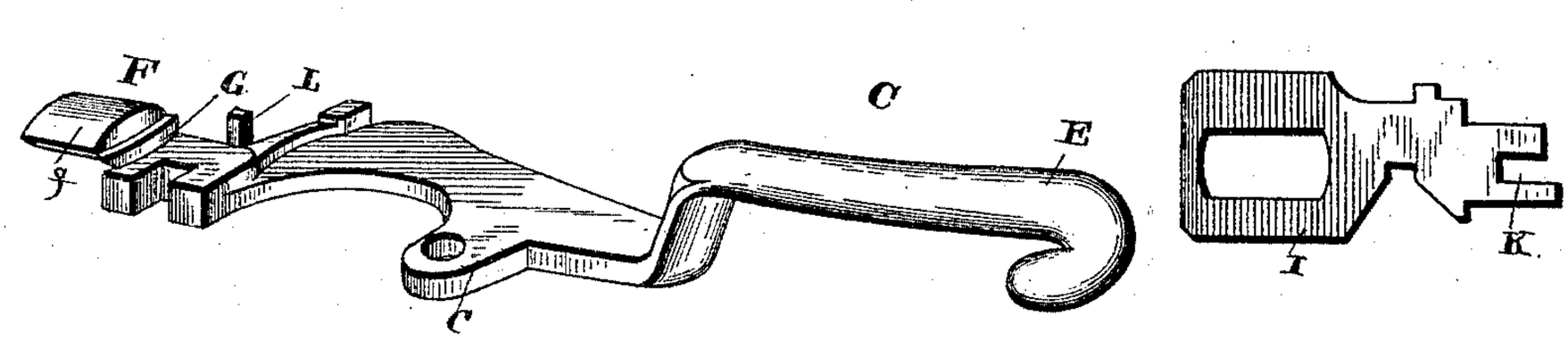


Fig. 4.

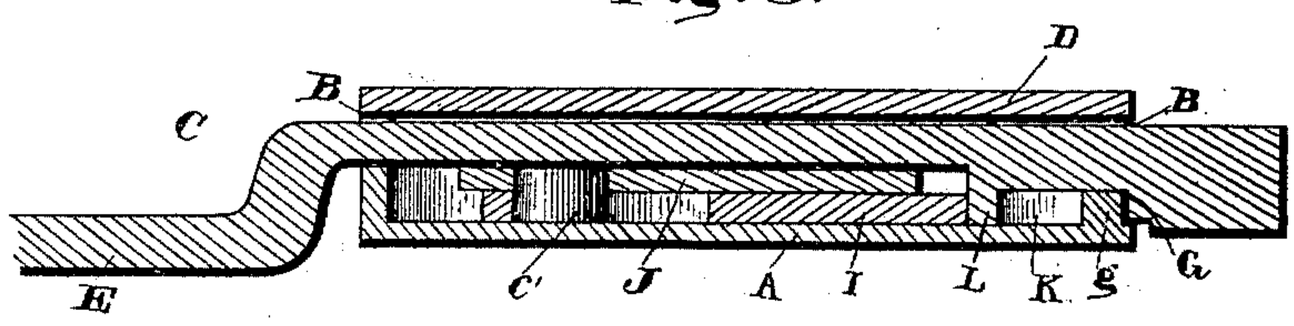


Fig. 5.

Fig. 6.

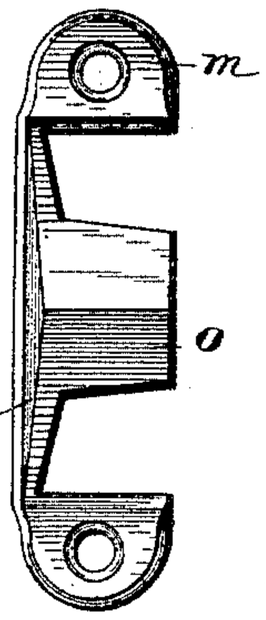


Fig. 7.

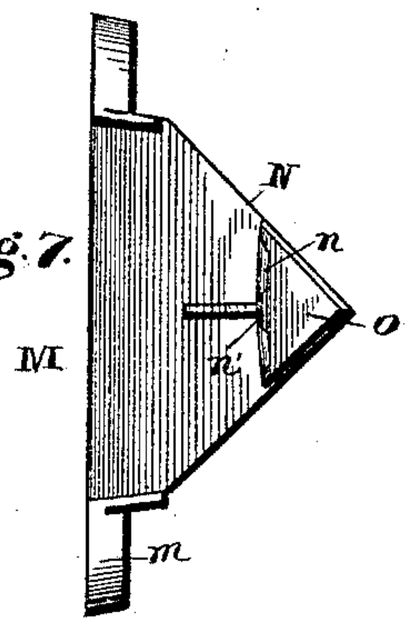
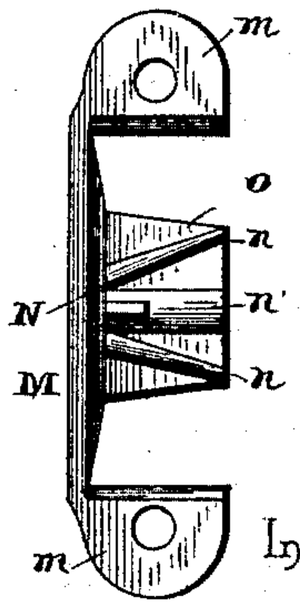


Fig. 8.



Witnesses

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D. P. Wolhaupter.

Inventor

John D. Perkins.

By his Attorneys,

Church & Co.

UNITED STATES PATENT OFFICE.

JOHN D. PERKINS, OF KENTON, OHIO.

LATCH AND LOCK.

SPECIFICATION forming part of Letters Patent No. 491,742, dated February 14, 1893.

Application filed May 27, 1892. Serial No. 434,540. (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 Combined Lock and Latch, of which the following is a specification.

This invention relates to improvements in combined locks and latches.

To this end it has for its object to provide an improved lock and latch primarily designed for use on refrigerator doors, where it is necessary that the door be held firmly against the jamb in order to insure an air tight joint and preventing heated air entering the refrigerator or cold air escaping, and for this use is also designed to be used in point of fact upon any doors to be tightly closed.

With these and many 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 back view of a lock and casing constructed in accordance with this invention, the cap plate being removed. Fig. 2 is a front end of the same. Fig. 3 is a horizontal sectional view of the lock. Fig. 4 is a detail in perspective of the handle latch. Fig. 5 is a similar view of the sliding bolt. Fig. 6 is a front elevation of the keeper. Fig. 7 is a side elevation of the same. Fig. 8 is a rear elevation thereof.

Referring to the accompanying drawings;—A represents the lock casing provided with the usual rectangular recessed portion in which is seated the various parts of the lock, and is provided with the front and rear openings B, located in the front and rear walls thereof, so as to accommodate the handle latch C moving therein and inclosed within the casing by the ordinary cap plate D. The said handle latch C is provided at a point intermediate of its ends with the right angularly disposed pivot arm *c* pivotally mounted over the pivot pin *c'*, arising within the casing adjacent to the rear wall opening B, through which projects the handle portion E, of the pivoted latch and the other end of which terminates in a beveled latch end or head F. The said latch head or end F works through the front opening in the lock casing and is provided upon the back face thereof with the convexed bearing face *f*, which, when the latch enters the double reversible box strike or keeper F' crowds within and contacts with the inner wall of said keeper and tends to press the door closer and more tightly against the jamb. The said handle latch C is further provided directly in rear of the latch end or head F thereof, with the under curved bearing shoulder G which snugly fits and rides over the curved bearing boss *g* arising from the front end of the casing A within the front latch opening B thereof, and said curved bearing boss holds the latch to its work and prevents any lateral play whatever of the same within the said front opening. The handle latch is held at the bottom of the front latch opening in the casing by means of the leaf spring *h*, bearing thereon and secured within the casing, so that when the latch is raised by the hand or the violent closing, the said spring forces the latch end of the latch within the keeper.

The movement of the latch is apparent and in order to lock the same so that the latch end thereof cannot be raised when the same is in the keeper, I employ the sliding locking bolt I, sliding within the casing and controlled by the spring-actuated bolt tumbler J, mounted thereover, and locking the same in its locked or unlocked position, both said locking bolt and bolt tumbler being controlled in a manner at once apparent. The sliding bolt I is provided at one end with the locking notch or slot K, which when the latch is in its normal spring-pressed position is adapted to slide over the latch locking pin L, projecting from the handle latch near the latch end thereof in the path of the notched end of the locking bolt. When by means of a key the locking bolt is slid over the locking pin of the latch, the same is prevented from being raised out of the keeper or operated until the said bolt has been slid back out of the path of the locking pin L.

Instead of the ordinary keeper notch, when the handle latch is mounted to move in the center of the casing and not near the bottom of the same as illustrated, I employ a double

reversible keeper M, and is designed to receive the latch end of the handle latch according to any position that the lock may be secured to the door, and is particularly designed to assist the lock in throwing and keeping the door pressed firmly against the jamb. This strike or keeper is therefore of a double reversible type adapting it for the positions contemplated. The said keeper or strike M, is provided with the base *m* by means of which the same is secured to the door frame, and from which arises the triangular side flange N. At the apex of said side flange N and projecting laterally from one side thereof, is the solid triangular strike head O, the sides of which are flush with the edges of the triangular flange, so that according to the position of the lock, the latch end of the latch upon striking said head may easily slide over the inclined faces of the same and over the back edge thereof, back of the head or against the base thereof. The base of said triangular head is provided with the diagonal elevations *n*, converging toward each other from opposite corners of the back edges of the head, so as to direct the rounded bearing face of the latch back of the head and also assist, together with the bevels of the lock casing, to press the door tightly against the jamb. The latch end passing over either face of the strike head and back of the same has its head rest against the central projection or boss *n'*, between the opposite converging elevations, and thus gives the latch more purchase within the keeper to obtain more pressure to throw the door against the jamb.

As observed it will of course be understood that the keeper just described is contemplated to receive the latch end when the same plays through the center of the casing.

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

1. The combination in a combined latch and lock, of the casing having a projecting pivot pin, a spring actuated handle latch moving in said casing and provided at an intermediate point with a right angularly disposed pivot arm loosely engaging over said pivot pin, a beveled latch end or head having a convexed or rounded bearing face directly opposite the slanting or beveled face thereof and adapted to contact with the inner wall of a keeper, and an integral inwardly projecting locking pin near said latch end, and a horizontally sliding locking bolt mounted within the casing alongside of the handle latch and provided at one end with a locking notch adapted to embrace said locking pin, to secure the latch, substantially as set forth.

2. The combination of the lock casing having front and rear latch openings in the end walls thereof, and a curved bearing boss arising from the front end of the casing within the front latch opening, and a spring-actuated latch pivotally mounted within said casing and provided with an under curved bearing shoulder registering with and sliding over said curved bearing boss, substantially as set forth.

3. The combination with a spring-actuated pivoted latch having a convexed bearing face; of a double reversible keeper or strike provided with a triangular side flange arising from one side of the base, a solid triangular strike head located at the apex of said side flange and projecting laterally from the same, said triangular strike head being provided upon the base thereof within the keeper with converging elevations converging from opposite inner corners of the head, and a central rest projection or boss between said opposite converging elevations, 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:
JOHN H. GARY,
CALVIN C. HARRIS.