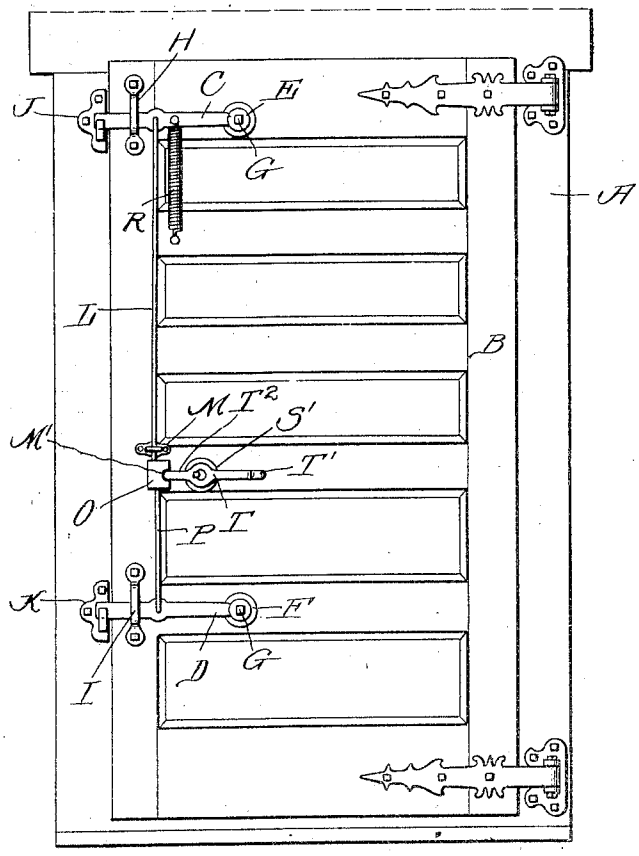
R. E. JONES.

SELF TIGHTENING TWIN LATCH FOR DOORS AND THE LIKE.

APPLICATION FILED DEC. 9, 1909.

973,049. Patented Oct. 18, 1910.

Fig. 1.



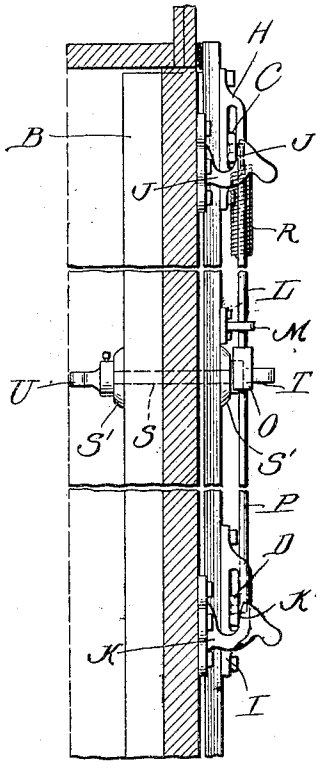
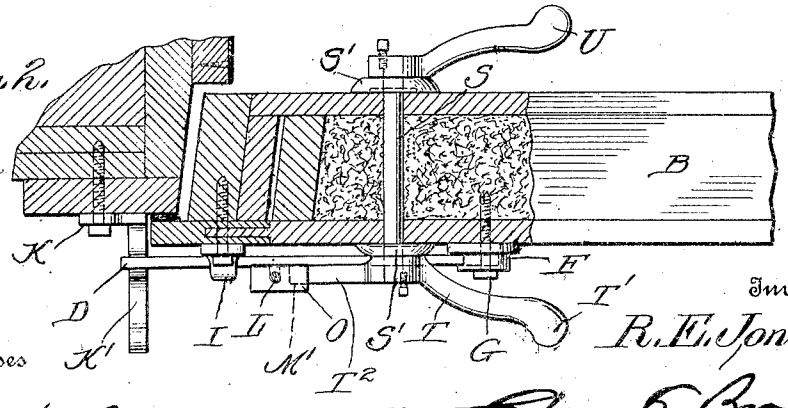


Fig. 3.

Fig. 2.



Witnesses

Oliver W. Holmes

Chas. A. Albright.

Inventor

R. E. Jones,

By Chas. E. Brock

Attorney

UNITED STATES PATENT OFFICE.

RICHARD E. JONES, OF HAGERSTOWN, MARYLAND.

SELF-TIGHTENING TWIN LATCH FOR DOORS AND THE LIKE.

973,049. Specification of Letters Patent. Patented Oct. 18, 1910.

Application filed December 9, 1909. Serial No. 532,166.

To all whom it may concern:

Be it known that I, RICHARD E. JONES, a citizen of the United States, residing at Hagerstown, in the county of Washington and State of Maryland, have invented a new and useful Improvement in Self-Tightening Twin Latches for Doors and the Like, of which the following is a specification.

This invention relates to certain new and useful improvements in self tightening fasteners, for cold storage doors, the object being to provide a fastener which is so constructed that the latches are drawn down into beveled keepers in order to cause the door to make a perfect contact with the frame at the top, bottom and sides.

Another object of the invention is to provide a fastener which is exceedingly simple and cheap in construction and one which can be operated from either the inside or outside of the door.

A still further object of the invention is to provide a fastener which is spring actuated so that after the door has been shut it is only necessary to release the operating lever in order to allow the pivoted latches to be drawn down into the keepers so as to cause the door to be closed tightly.

Another object of the invention is to provide a fastener with a pair of pivoted latches arranged adjacent the upper and lower edges of the door which co-act with keepers having beveled faces carried by the frame in such a manner that when the latches are released they will be drawn down into the keepers by the action of the springs so as to draw the door tightly closed.

A still further object of the invention is to provide a pair of pivoted latches which are connected to an operating block by latch rods, said operating block being operated by a pivoted lever carried by a spindle mounted in suitable bearings secured on the door, said spindle having a lever or handle at its opposite end arranged on the inner face of the door to enable the door to be opened from the inside.

With these various objects in view, my invention consists in the novel features of construction, combination and arrangement of parts hereinafter fully described, pointed out in the claims and shown in the accompanying drawings, in which,

Figure 1 is a front elevation, of a cold storage door and frame showing the application of my improved twin fastener. Fig. 2 is an enlarged horizontal section taken through the door and frame showing the manner of mounting the spindle. Fig. 3 is a vertical section showing the position of the pivoted latches within the keepers when the door is in a closed position.

Referring to the drawing A indicates a door frame and B the door, which may be of any desired construction, the above description being given so that the operation of my improved fastener can be readily understood.

In carrying out my improved invention, I employ a pair of pivoted latches C and D adapted to be mounted on the outer face of the door as clearly shown, said latches being carried by bearing members E and F which are secured to the face of the door by lag screws G which form pivoted members for the respective latches so that the latches can readily swing, the movement of said latches being controlled by guide members H and I secured upon the face of the door and through which the latches extend.

Secured to the door frame A in horizontal alinement with the latches are keepers J and K which are provided with beveled inner edges J′ and K′ adapted to co-act with the latches when the same are forced into the keepers so as to draw the door tightly closed in order that the door will be forced up against the rubber gaskets so as to form a perfect air tight joint.

Connected to the upper latch C is a latch rod L which extends through a guide member M secured on the face of the door and has its lower end secured in an operating block O to which is connected a latch rod P which is connected at its lower end to the latch D so that when the operating rod is moved upwardly the latches C and D will be raised so as to disengage the same from the keepers and it will be seen that when the operating block O is drawn downwardly the latches will be drawn into the keepers.

In order to hold the latches in the keepers under tension I provide a coil spring R which has one of its ends connected to the upper latch C and the other or free end to the door B and it will be seen that by this arrangement the latches will be drawn into the keepers by the action of the spring without having to operate the operating block.

It will be seen that the spring R will control both of the latches as the latches are

connected together by the latch rods in such a manner that when one latch is moved the other will also be moved so that when the operating block is moved upwardly both latches will be disengaged from the keepers and when released and the door is in a closed position they will be forced into engagement with the beveled inner edges of the keepers by the action of the spring in order to hold the door firmly closed.

For operating the operating block O I provide the door with a spindle S which is mounted in suitable bearings S′ secured to the inner and outer faces of the door and fixed on the outer end of the spindle S is an operating lever T provided with a handle portion T′ and a rounded end portion T^2 which works loosely in a notch M′ formed in the operating block O so that when the handle T′ of the operating lever is forced downwardly the block O will be drawn upwardly in order to raise the latches out of the keepers. The inner end of the spindle S is provided with an operating lever or handle U which is secured thereon by any suitable means, such as shown in Fig. 2, but it is of course understood that various means may be employed for securing the operating levers in position on the spindle without departing from the spirit of my invention.

From the foregoing description it will be seen that I have provided a door fastener in which a pair of pivoted latches are employed which coact with a pair of keepers having beveled inner edges so that the door will be forced tightly closed, said latches being normally held under spring tension and being operated by latch rods which are operated by a pivoted lever through the medium of an operating block to which the respective ends of the latch rods are connected.

What I claim is:—

1. A fastener of the kind described comprising a pair of pivoted latches adapted to be secured to the door, guide members arranged over said latches, a pair of keepers secured to the door frame provided with beveled inner edges adapted to receive said latches, a spring connecting one of said latches to said door, latch rods connected to the respective latches, a block connecting said latch rods provided with a notch and a spindle carrying a lever having a rounded end working in the notch of said block.

2. A self tightening twin fastener for cold storage doors comprising a pair of keepers provided with beveled inner edges adapted to be secured to the door frame, a pair of pivoted latches carried by bearing members secured to the door, guide members secured to said door over said latches, a latch rod connected to the upper latch working through a guide secured to the door, a block carried by the lower end of said latch rod, a latch rod connecting said block to the lower latch, said block being provided with a notch, a spindle mounted in said door in bearings secured to the inner and outer faces of the same, a handle or lever secured on one end of said spindle, and a lever secured upon the other end provided with an outwardly projecting rounded end working in the notch of said block for operating the same.

RICHARD E. JONES.

Witnesses:
R. M. KEEDY,
C. L. KEEDY.