B. R. CRAMPTON.

LATCH FOR DOORS AND OTHER PLACES.

APPLICATION FILED JULY 20, 1910.

988,313. Patented Apr. 4, 1911.

2 SHEETS—SHEET 1.

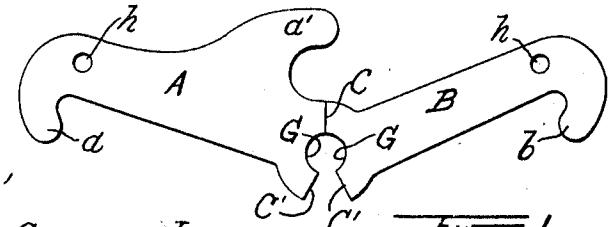

Fig. 1.

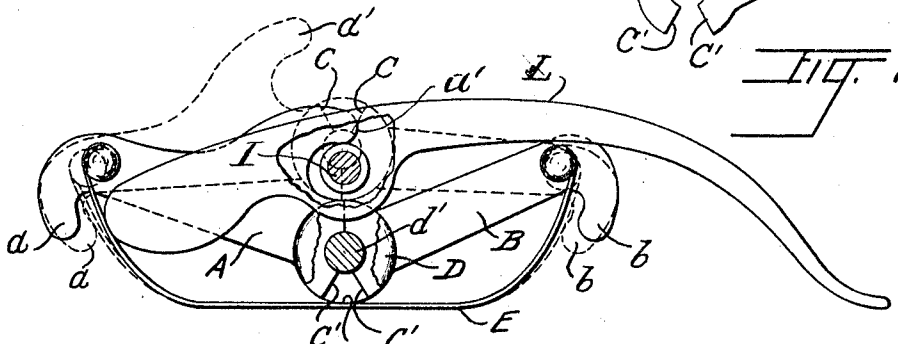

Fig. 2.

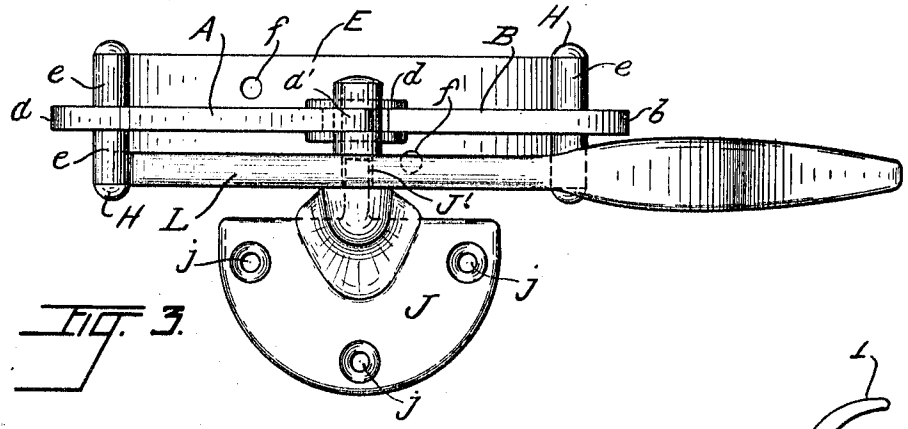

Fig. 3.

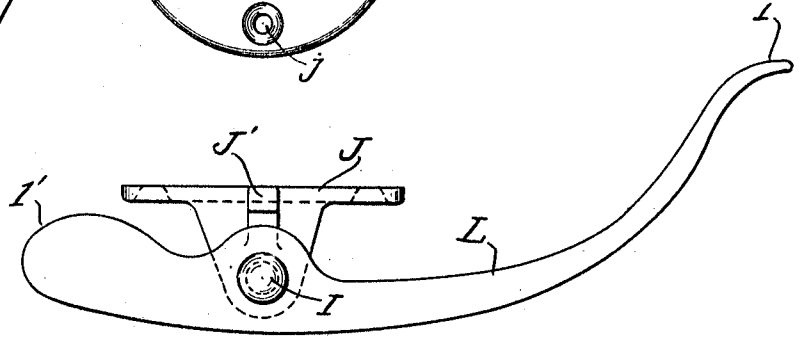

Fig. 4.

WITNESSES:

C. A. Adams.

INVENTOR

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B. R. CRAMPTON.

LATCH FOR DOORS AND OTHER PLACES.

APPLICATION FILED JULY 29, 1910.

988,313.

Patented Apr. 4, 1911.

2 SHEETS—SHEET 2.

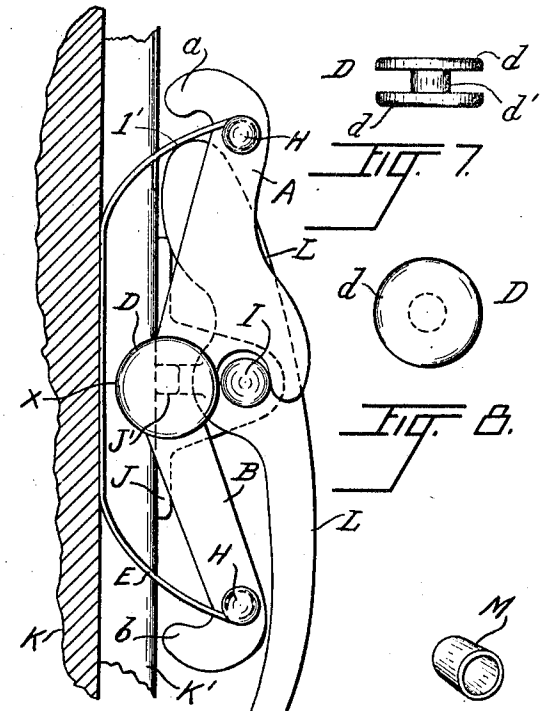

Fig. 5.

Fig. 7.

Fig. 8.

Fig. 9.

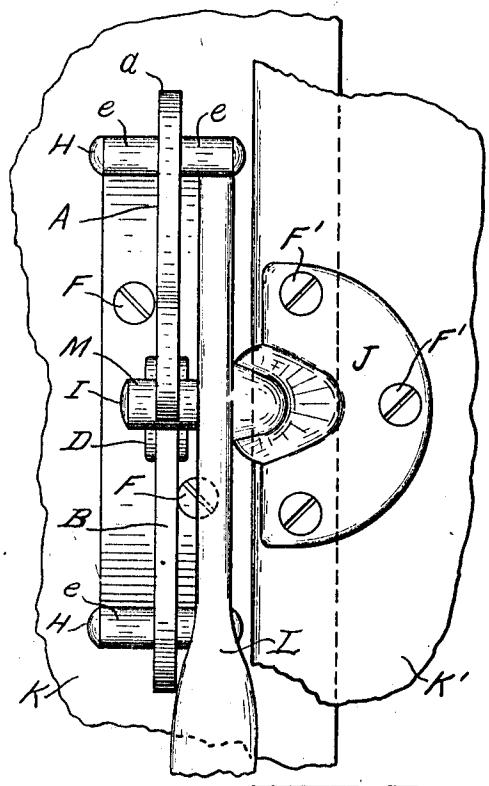

Fig. 6.

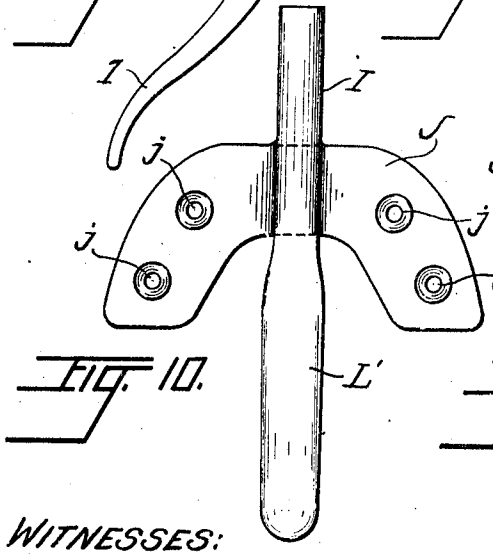

Fig. 10.

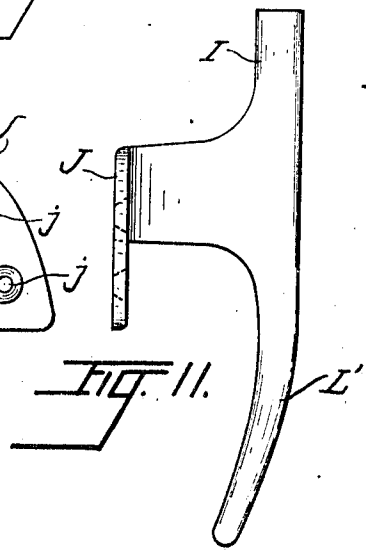

Fig. 11.

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UNITED STATES PATENT OFFICE.

BASIL R. CRAMPTON, OF CHICAGO, ILLINOIS.

LATCH FOR DOORS AND OTHER PLACES.

988,313. Specification of Letters Patent. Patented Apr. 4, 1911.

Application filed July 29, 1910. Serial No. 574,474.

To all whom it may concern:

Be it known that I, BASIL R. CRAMPTON, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Latch for Doors and other Places, of which the following is a specification.

My invention relates to improvements in latches in which a keeper and a pin or bolt are alternately engaged and disengaged as the door or doors on which they are placed are closed or opened. And this invention is an improvement of the device set out, described and claimed in Letters Patent of the United States issued to me July 13, 1909, No. 928,030; and the object of the invention is to obtain a device which can be made cheaply, which is durable, not liable to get out of order, is easily operated, readily mounted in place on doors, or other objects, and which will continuously hold the doors or other articles on which the device is mounted tightly closed.

The latch comprises two members, one of which has a holding member, adapted to be placed in a holding and in a releasing position, which member corresponds with the member called the keeper in the patent referred to, and which is herein called a keeper; and the other of which consists of a pin or bolt which is adapted to be held by the keeper when said keeper is in a holding position, and to be released from said keeper when it is in what I have termed above a releasing position.

The member termed the bolt or pin includes a handle, which may be integral with said bolt or pin, or movable thereon.

In the accompanying drawings;—Figure 1 is an elevation of the movable members of the keeper of the device; Fig. 2 is a side elevation of the device with the several parts illustrated in full lines in the engaging position, and with the keeper indicated by broken lines in the releasing position; Fig. 3 is a front view of the device, with the several parts in the engaging position; Fig. 4 is a rear side elevation of a movable handle which forms a part of the pin or bolt member; Fig. 5 is a side elevation of the device, with the several members in an engaging position, and attached to the doors of a refrigerator, showing a small portion of said doors; Fig. 6 is a front view of the device, with the several members in an engaging position, and attached to the doors of a refrigerator, showing a small portion of said doors; Fig. 7 is a side elevation of a button forming an element of the device; Fig. 8 is a front elevation of the button illustrated in Fig. 7; Fig. 9 is a perspective of a collar which forms an element of the device which is illustrated in Figs. 2, 3, 5 and 6; Fig. 10 is a front elevation of a pin or bolt member having a handle rigidly attached thereto by being made integral therewith; and Fig. 11 is a side elevation of the pin or bolt member which is shown in front elevation in Fig. 10.

Similar letters refer to similar parts throughout the several views.

The levers A, B, provided with projecting ends a, b, recessed ends C, C′, button D and spring E constitute the keeper member of the device. Lever A is provided with finger a'. Spring E is attached to the door or other thing on which the keeper member of the device is to be mounted, by the screws F, F, and forms the base, as well as the yielding member, of the keeper.

G, G, are recesses in recessed ends C, C′, of levers A and B, respectively. When the keeper is in an engaging position the parts C of the recessed ends C, C′ are near to contact; and when said keeper is in a releasing position the parts C′ of said ends are in contact, or nearly so. The projecting ends a, b, limit the outward movement and position of the levers A, B, when the keeper is in a releasing position, by said ends coming into contact with the spring E, as is indicated by the broken lines in Fig. 2.

When the several parts of the keeper member are assembled, the shank d' of button D is in the recesses G, and is maintained in place by the flanges d, d, and the action of the spring E, and the levers A, B, are attached to the spring by the pins H, H, which extend through the holes or apertures h, h, (see Fig. 1) in said levers. The spring E is turned around the pins H, H, at its ends e, e, (see Figs. 3 and 6).

f, are apertures in spring E, through which the screws F extend when said spring is attached to a door or other object.

I is a pin or bolt, mounted on base J. Base J is provided with apertures or holes j, j, through which the screws F′ extend when said base is attached to a door or other object.

J′ is a projection on base J, (Figs. 2 and 3).

K is a door on which the keeper of the de-

vice is attached, by screws F, and K′ is a door on which the base J is attached by the screws F′.

L is a lever, provided with a hole or aperture which fits loosely over the pin I.

l is the handle end of the lever L, and *l′* is the end of lever L which comes in contact with spring E when said lever is used to break the engagement of pin or bolt I with the keeper member.

M is a collar which fits loosely over the pin or bolt I. Collar M is held in place on the pin or bolt I by slightly enlarging the end of said pin or bolt with a hammer, or by pressure. Collar M holds the lever L in place, and said collar comes in contact with the levers A, B, when doors K K′ are closed and the keeper engages the bolt. When the keeper is brought into a releasing position the collar M passes out from engagement with the finger *a′*; and when the keeper is in an engaging position said finger *a′* is over and in contact with said collar. To provide for the contact of the finger *a′* with the collar when the keeper is in the engaging position, the base J is made of a height, relative to the position of the keeper levers A, B, so that when the doors on which the device is placed are closed, the bolt or pin I will permit the levers A, B, to be forced into substantially the position illustrated in Fig. 5, with the button D not in contact with the spring E, but near to contact therewith, as is illustrated at X. As said spring E tends to move the levers A, B, into the position illustrated in Fig. 2, with the button D in contact with spring E, as is illustrated at X in said Fig. 2, there is a constant pressure of finger *a′* on collar M, when the device is mounted on doors and said doors closed, and thereby said doors are maintained tightly closed by the device.

Of course the device may be mounted with the keeper on the casing of a door, and the pin or bolt mounted on the door, if there is but one door to the refrigerator, in which case K represents the casing of a door and K′ the door.

The projection J′, (Fig. 4), is to prevent the lever L getting into position to prevent the shutting of the door on which the base J and pin or bolt I are mounted. All that is required to effect this result is to place the projection J′ in the path of movement of the lever L, so that said lever cannot turn on pin or bolt I so as to present the end thereof to spring E as the door is closed.

In Figs. 10 and 11 the handle L′ is integral with base J and bolt I, and may be grasped to open the door on which said pin or bolt is mounted, (by means of base J).

The end *l′* of lever L is made of such length from the pivotal point of said lever, that said end will pass by the turned end *e* of the spring E when levers A, B are in substantially the same plane; and not to pass by said turned end when said levers are not in substantially the same plane. And the end *l* of said lever L is curved so that the said end will hit the door or other object on which the base J is attached at or just before the time when the pin or bolt I has forced the levers A, B, into the same plane, or substantially so, and so move the end *l′* by the end *e* of spring E, which is adjacent to said end *l′*. By this construction, as the pin or bolt I forces the levers A, B through and beyond the same horizontal plane the end *l′* assumes substantially the position illustrated in Fig. 5, and to open the door easily the end *l* of lever L is grasped and said lever is turned on its pivot, whereupon the end *l′* forces said door open.

I claim;—

1. A latch having a keeper, said keeper having in combination, levers provided with recesses at their meeting ends and provided with projections at the other ends, a button consisting of heads joined by a shank, said shank positioned in said recesses, and means to yieldingly hold the levers in position to form toggle arms and to resist the movement of the toggle arms into the same plane, the movement of said toggle arms in one direction controlled by said projections, one of said levers provided with a finger projecting beyond the recessed end thereof and a bolt adapted to co-act with said finger.

2. A latch consisting of a bolt in combination with levers provided with recesses at their meeting ends and provided with projections at the other ends, a button consisting of heads joined by a shank, said shank positioned in said recesses and means to yieldingly hold the levers in position to form toggle arms and to resist the movement of said toggle arms into the same plane, one of said levers provided with a finger, engageable with said bolt, the projections on said levers adapted to limit the movement of the toggle arms in one direction.

3. A latch consisting of a bolt and a handle attached thereto in combination with levers provided with recesses at their meeting ends and provided with projections at the other ends, a button consisting of heads joined by a shank, said shank positioned in said recesses, and means to yieldingly hold the levers in position to form toggle arms and to resist the movement of said toggle arms into the same plane, one of said levers provided with a finger engageable with said bolt, the projections on said levers adapted to limit the movement of the toggle arms in one direction.

4. A latch consisting of a bolt and a handle pivotally attached thereto, in combination with levers provided with recesses at their meeting ends and provided with projections at the other ends, a button consist-

ing of heads joined by a shank, said shank positioned in said recesses and means to yieldingly hold the levers in position to form toggle arms and to resist the movement of said toggle arms into the same plane, one of said levers provided with a finger engageable with said bolt, the projections on said levers adapted to limit the movement of the toggle arms in one direction.

5. A latch consisting of a bolt and a handle attached thereto in combination with levers provided with recesses at their meeting ends, a button consisting of heads joined by a shank, said shank positioned in said recesses, means to yieldingly hold the levers in position to form toggle arms and to resist the movement of said toggle arms into the same plane, and means to limit the outward movement of said toggle arms, one of said levers provided with a finger engageable with said bolt.

6. A latch consisting of a bolt in combination with levers provided with recesses at their meeting ends and provided with projections at the other ends, a button consisting of heads joined by a shank, said shank positioned in said recesses and a spring to yieldingly hold the levers in position to form toggle arms and to resist the movement of said toggle arms into the same plane, said projections engageable with said spring to limit the outward movement of the toggle arms, one of said levers provided with a finger engageable with said bolt.

7. A latch consisting of a bolt and a handle pivotally attached thereto, in combination with levers provided with recesses at their meeting ends and provided with projections at the other ends, and provided with apertures adjacent to said projections, a button consisting of heads joined by a shank, said shank positioned in said recesses, a spring turned up at its ends, pins through the turned ends of the spring and the apertures in the levers, to yieldingly hold the levers in position to form toggle arms and to resist the movement of said toggle arms into the same plane, one of said levers provided with a finger engageable with said bolt, the projections on said levers adapted to limit the movement of the toggle arms in one direction.

BASIL R. CRAMPTON.

In the presence of—
CHARLES TURNER BROWN,
D. D. SWEM.