C. R. BRUNNACKER.

RELEASING DEVICE FOR DOOR LATCHES.

APPLICATION FILED MAR. 24, 1913.

1,070,402. Patented Aug. 19, 1913.

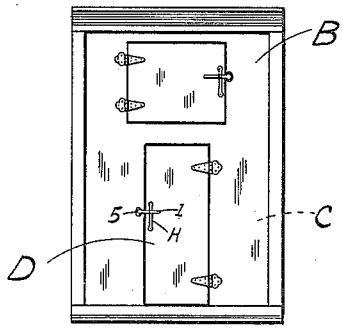


FIG. 1.

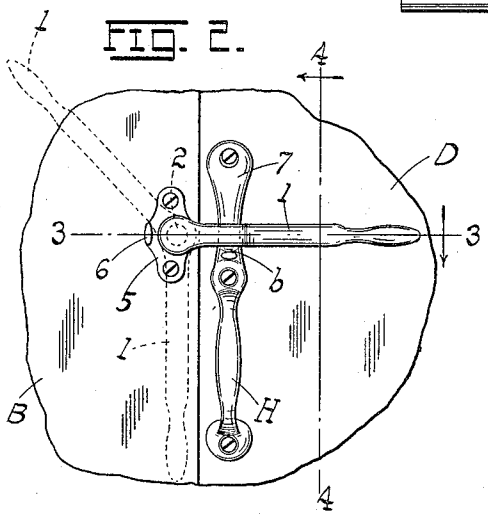


FIG. 2.

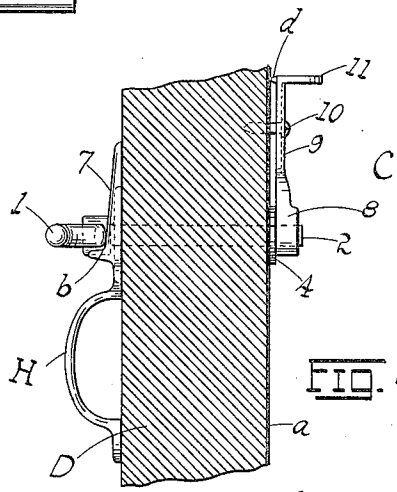


FIG. 4.

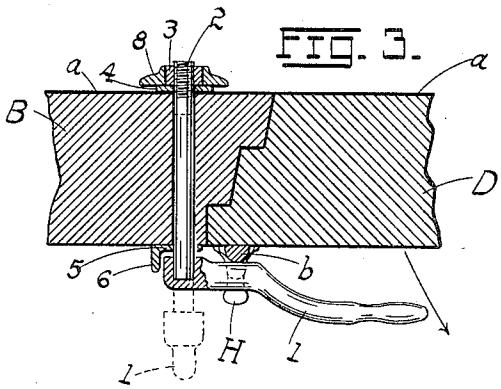


FIG. 3.

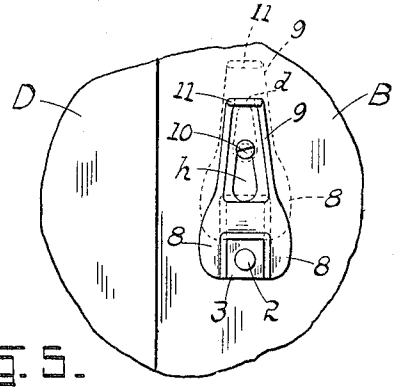


FIG. 5.

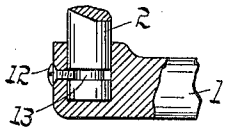


FIG. 6.

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RELEASING DEVICE FOR DOOR-LATCHES.

1,070,402. Specification of Letters Patent. Patented Aug. 19, 1913.

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To all whom it may concern:

Be it known that I, CHARLES R. BRUNNACKER, citizen of the United States, residing at St. Louis, State of Missouri, have invented certain new and useful Improvements in Releasing Devices for Door-Latches, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention has relation to improvements in releasing devices for door-latches; and it consists in the novel details of construction more fully set forth in the specification and pointed out in the claims.

In the drawings, Figure 1 is a front elevation of a conventional form of ice-box or refrigerator having my invention applied thereto; Fig. 2 is an enlarged face elevation of an ice-box wall and door thereof (broken away) showing my invention applied thereto; Fig. 3 is a horizontal section on the line 3—3 of Fig. 2; Fig. 4 is a side view of the door fastener with my attachment applied, the door being in vertical section on the line 4—4 of Fig. 2; Fig. 5 is a rear face view of the ice-box wall showing my attachment in position; and Fig. 6 is a detail showing a modification of the manner of mounting the locking handle or lever to its supporting pin or bolt.

The present improvement is specifically directed to releasing devices for door-fasteners or latches on refrigerators and ice-boxes, and has for its object to provide means whereby a person locked in the refrigerator intentionally or by accident may loosen the fastener from the inside of the refrigerator and thus regain his freedom. Such a device is specially desirable on refrigerators in bar rooms, grocery stores, restaurants and the like where the proprietor or attendant is often held up by burglars and highwaymen and forced into the refrigerator and the door closed and locked after him. To enable the person so confined to regain his freedom in time to avoid the evil effects of his enforced incarceration, is the main object of my present invention. The advantages thereof will be best apparent from a detailed description of the invention which is as follows:—

Referring to the drawings, B represents the outer casing of a conventional ice-box or refrigerator, and D the hinged or swinging door leading to the ice compartment C as well understood in the art. In the present embodiment of my invention, I illustrate the conventional "Condit" fastener composed of a handle lever 1 which is fastened at one end to the outer end of a rotatable pin or bolt 2 mounted in the casing wall adjacent the door D, the inner end of the bolt being screw-threaded and carrying a nut 3 engaging the inner face of the casing-wall, a washer 4 being preferably interposed between said nut and the metallic sheet lining *a* of said wall. The outer end of the bolt passes through a casting or plate 5 provided with a lug 6 which arrests the lever 1 when the latter has been swung upwardly to full open position. Mounted adjacent the free edge of the door is a cam or keeper 7 which the member 1 engages when swung to locking position, the cam formation *b* bringing about the necessary frictional contact between the parts to insure the handle remaining "locked" or in fastening engagement when swung its full limit across the keeper. The door is further provided with a handle H by which it may be readily manipulated.

My invention provides the necessary means for loosening the nut 3 by the person confined in the ice-box, such means being as follows:—Engaging the nut are the jaws 8 of a wrench 9 provided with an elongated slot *h* traversable by a pin or the stem of a screw 10 driven into the casing wall, the upper end of the member 9 terminating in a lip or finger-hold 11. When the jaws 8 embrace or are in engagement with, the nut 3, the screw-stem 10 bears against the upper terminal of the tapering slot *h*, the wrench thus suspended or mounted serving as a nut-lock and preventing the turning or loosening of the nut. The nut being thus kept against turning, it follows that in the performance of its legitimate functions the bolt 2 may be rocked back and forth (with the fastening and unfastening of the door) for an indefinite period, without danger of working loose the nut. In the event, however, a person is locked inside the refrigerator by a robber, burglar, highwayman, or by accident, he seizes the wrench 9 by the lip 11, pulling it outwardly

or upwardly (when the screw-stem 10 happens to be vertically over the bolt) until the head of the screw 10 can clear the sides of the slot *h*, after which the wrench may be removed from its support. To permit of such removal the slot *h* is made tapering, the same widening toward the jaws 8, the wide portion allowing the head of the screw 10 to pass through it (Fig. 5). The person thus confined then simply uses the wrench 9 on the nut 3 loosening or removthe same, whereupon the bolt 2 may be pushed outwardly from the inside far enough to cause the lever 1 to become disengaged from its keeper 7, the lever then falling or dropping under the action of gravity away from the door, permitting the latter to be pushed open from the inside (vertical dotted position of lever Fig. 2). The person so confined can then regain his freedom.

The screw 10 may of course be positioned where most convenient, and while I have shown the same vertically over the bolt 2, any other position will answer the purpose so long as it serves to maintain the wrench 9 in engagement with the nut 3 until the critical time for its removal arrives. Since such times are in the main infrequent, and there is danger of rust accumulating between the wrench and metal lining *a* I provide the outer terminal of the wrench with a rear ridge or thin spacing rib *d* (Fig. 4) which reduces the surface of contact between the wrench and lining *a* and thus reduces to a minimum the danger of excessive accumulations of rust. This permits the wrench to be readily removed when the critical time arrives as the person inside can readily break what rust may accumulate at this point.

It is of course perfectly obvious that the bolt 2 need not rotate; the handle lever 1 may itself be rotatably mounted on the outer end of the bolt and fastened in any way known to the art to prevent dropping off, in which event the operation would be the same. Such a modification is illustrated in Fig. 6 where the wall of the handle socket carries a screw 12 engaging a peripheral groove 13 in the bolt 2. In this modification the handle 1 may oscillate freely without turning the bolt. The first however, is the preferred construction for the rocking of the bolt insures against its sticking in the wood when the critical time arrives.

Having described my invention what I claim is:—

1. In a door-latch, a member mounted on a fixed support, a movable door, means carried by said member on one side of the fixed support for latching said door, means on the opposite side of the fixed support for securing said member against removal, and means normally engaging said securing means and adapted to operate to loosen the same whereby the member may be shifted to cause a release of the latching means from said door.

2. In combination with a casing wall, a door hinged thereto, an oscillating handle lever, a member passed through the wall of the casing and supporting said lever on the outside of the casing and in position to permit swinging thereof across the door, a nut on the inside of the casing carried by said member to prevent withdrawal of the same, a removable member on the inside of the casing locking said nut, said member serving as a wrench for the loosening of said nut.

3. In combination with a fixed support, a bolt passing through said support, a latching member on said bolt on one side of said support, a nut on said bolt engaging the opposite side of said support, a member operable as a wrench removably mounted on the fixed support on the side of the bolt carrying the nut, said member being provided with means for locking the nut against rotation, for the purpose set forth.

4. In combination with a casing wall provided with a hinged door, a bolt passed through the wall adjacent the free edge of the door for the closed position of the latter, a nut on the inner end of the bolt, a door-latching member on the bolt outside the casing, a member on the inside of the casing provided with a pair of jaws for locking the nut against rotation, said member being provided with a slot tapering away from the jaws, and a headed screw carried by the casing wall and traversing said slot, for the purpose set forth.

5. In combination with a casing wall having an opening, a hinged door for closing said opening, a latching lever for locking the door, a bolt passed through the casing wall adjacent the opening and supporting said lever on the outside of the wall, a nut on the bolt on the inside of the casing, a member engaging the nut and serving as a nut-lock therefor, said member being detachably secured to the inside of the casing wall, the nut-locking portion of the member serving as a means for turning the nut upon the removal of the member from the casing wall.

6. In combination with a casing wall, a bolt passed through the wall, a nut on the inside of the casing mounted on the bolt, a latching member secured to the bolt on the outside of the casing wall, a wrench mounted on the inside of the casing wall and engaging the nut to lock the same, and means on the casing wall for supporting the wrench and permitting movement thereof to and from the nut.

7. In a door-latch, a member mounted on a fixed support, a movable door, means car-

ried by said member on one side of the fixed support for latching said door, means on the opposite side of the fixed support for securing said member against removal, and means on the same side with the securing means engaging the latter and detachably secured to the fixed support for removing said securing means, whereby the member may be shifted to cause a release of the latching means from said door.

8. In an ice-box, a bolt passed through the wall thereof, a door-latching lever at one end of the bolt on the outside of the box, a nut on the bolt on the inside of the box, and a wrench detachably mounted on the inside of the box and provided with jaws engaging the nut and serving as a nut-lock, for the purpose set forth.

In testimony whereof I affix my signature, in presence of two witnesses.

CHARLES R. BRUNNACKER.

Witnesses:

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FANNIE E. WEBER.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."