

(No Model.)

A. ISKE.
LATCH.

No. 524,594.

Patented Aug. 14, 1894.

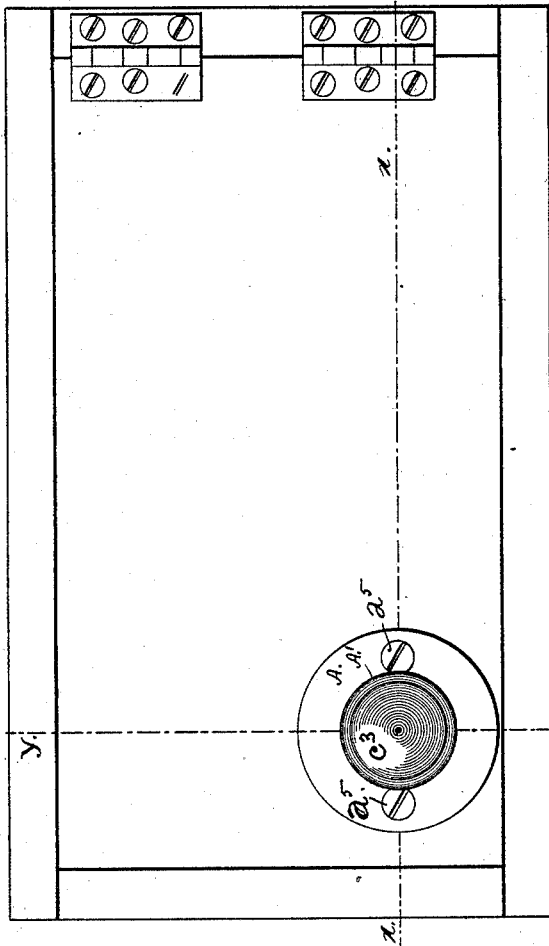


Fig. 1.

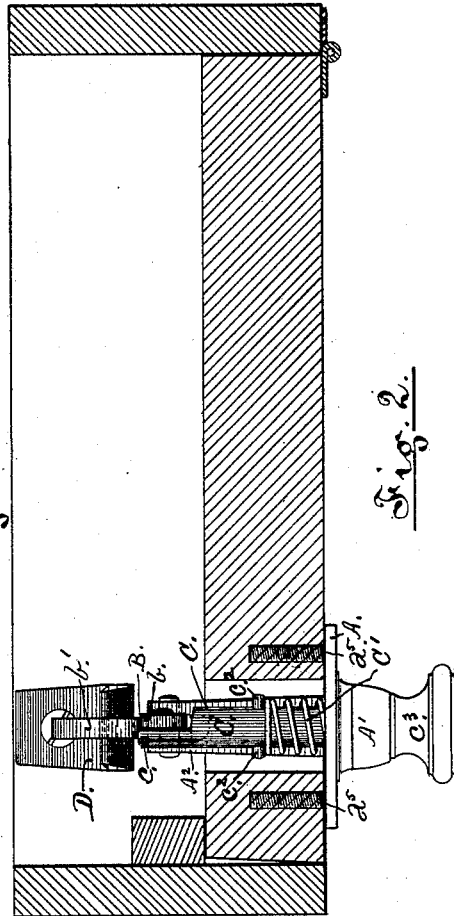


Fig. 2.

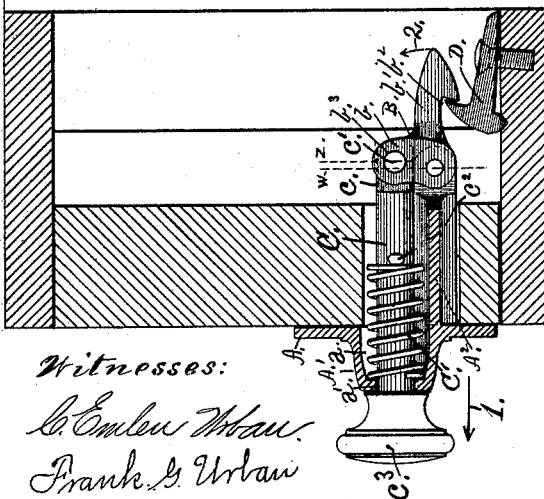


Fig. 3.

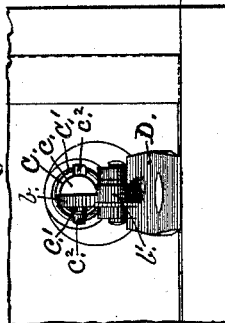


Fig. 4.

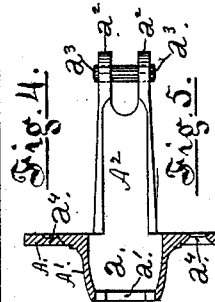


Fig. 5.

Witnesses:

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UNITED STATES PATENT OFFICE.

ALBERT ISKE, OF LANCASTER, PENNSYLVANIA, ASSIGNOR TO DULON F. BUCHMILLER, OF SAME PLACE.

LATCH.

SPECIFICATION forming part of Letters Patent No. 524,594, dated August 14, 1894.

Application filed November 15, 1893. Serial No. 491,022. (No model.)

To all whom it may concern:

Be it known that I, ALBERT ISKE, a citizen of the United States, residing at Lancaster, in the county of Lancaster and State of Pennsylvania, have invented certain new and useful Improvements in Latches; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in a closet or door-latch of that class in which a hook, a spring, and a rod are so arranged, combined and secured in place that the hook will engage a fixed catch, the spring hold it engaged, and the rod open the same.

The object of the invention is the construction of a simple and effective latch specially designed for use in holding a cupboard or closet door closed, and that may be readily disengaged from its catch by the same pull, upon the knob or handle, which is used to open said door. Latches for this purpose, constructed after the slide-bolt pattern, and a cupboard-catch, patented September 21, 1886, No. 349,671, are well known to the trade, but in which a turn or push on the knob or handle is required to release the door, and a pull thereon to open the same, while in this invention these two functions are performed at one operation, a simple pull upon a knob or handle.

The purposes of the invention are attained by the mechanism illustrated in the accompanying drawings, in which similar letters of reference designate like parts throughout the several views.

Figure 1 is a front elevation of a hinged closet door showing a latch embodying the elements of the invention in position; Fig. 2, a view, from above, of the portion below the line $x x$ in Fig. 1; Fig. 3, a view, from the right, of the portion to the left of the line $y y$ in Fig. 1; Fig. 4, an inside elevation of a portion of Fig. 1, showing the latch and catch in position, and Fig. 5, a detached plan of the latch frame, the supporting plate appearing in horizontal section.

The latch frame (Fig. 5) consists of a supporting plate A having an outwardly projecting dome A', and an inwardly projecting arm A², all integrally made as one casting. The

dome is made hollow to form a recess a to receive an end of a coiled spring, and in its center is an orifice a' to permit the passage of the actuating rod; the arm is made hollow above and below to reduce weight, and in its inner end is a vertical U-cut forming two prongs $a^2 a^2$ provided with a horizontal pivot pin a^3 for pivoting thereto the latch-hook; and the plate is provided with orifices a^4 through which screws a^5 serve to secure it in place (Figs. 1, 2 and 3).

The latch-hook is an angle lever B, somewhat L-shaped, having two arms b and b' , the former perpendicularly, and the latter horizontally, disposed, and it is pivoted, through the angle, between the prongs a^2 , to the forward end of the arm A² (Figs. 2 and 3). The arm b' , having a prescribed length, has its forward end downwardly and rearwardly sloping so as to move easily up the forward edge of a fixed catch-hook yet to be described, and its under edge provided with a hook-notch b^2 , slightly under-cut, to engage said catch-hook; and the arm b , considerably shorter than the arm b' , which it must be to lift said arm b' quickly, has its upper end, a little forward of the vertical center line of the latch pivot, provided with an orifice b^3 to pivotally receive a projecting pin from the side of the forward end of the actuating rod yet to be described.

Extending through the orifice a' of the frame, and freely movable back and forth therein, is a rod C, of prescribed dimensions, having its inner end c flattened on one side to bear against the side of the vertical lever-arm b , while a rounded pin c' projecting from said flat side and passing through the orifice b^3 of the arm serves to pivot said rod-end to said lever-arm; on the body of the rod is placed a coiled spring C', having one end within the recess a of the dome resting against its wall, and the other end, against pins or lugs c^2 projecting from the sides of the rod, the resiliency of the spring serving to keep said rod pressed inward; and, the outer end of the rod is provided with a handle or knob c^3 , pressing against the dome to stop the inward action of the spring, to withdraw the rod, to disengage the latch, and to open the door.

D designates a hook-catch, so placed and

secured in position to the body, or a shelf, of a cupboard or closet, so that it may be readily engaged by the latch-hook when the door or portion having the attached latch is closed.

5 Now the several parts having been placed in the several positions indicated in the drawings, and secured in place, an inspection of Fig. 3 clearly shows: first, that the spring C' acting inward on the rod will keep the latch
10 in engagement with the catch and the door, or portion, securely closed; second, that a pull on the knob c^3 , in the direction of the arrow 1, will lift the latch-hook in the direction of the arrow 2 from the catch, when said door or
15 portion by the same pull, continued, will be readily opened.

Having now described the invention and set forth the manner in which it is performed, what I do consider new, and desire to secure
20 by Letters Patent, is—

The herein described latch comprising: the plate A with the dome A' having the recess a and the central orifice a' , and the arm A² with the two inner end prongs a^2 and a^3 having the horizontal pivot pin a^3 ; the angle- 25 ver B with the arms b and b' having the hook-notch b^2 and the pivot-orifice b^3 ; the actuating rod C with the flat inner end side having the pivot-pin c' , the side projecting pins c^2 and c^3 , and the outer end knob c^3 , and the spring 30 C'; and the hook-catch D,—all arranged, combined, and secured in position as shown and for the purpose hereinbefore set forth.

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

ALBERT ISKE.

Witnesses:

EDWIN BOOKMYER,
CHAS. Q. BOOKMYER.