

(No Model.)

A. A. PAGE.  
LATCH.

No. 477,445.

Patented June 21, 1892.

Fig. 1

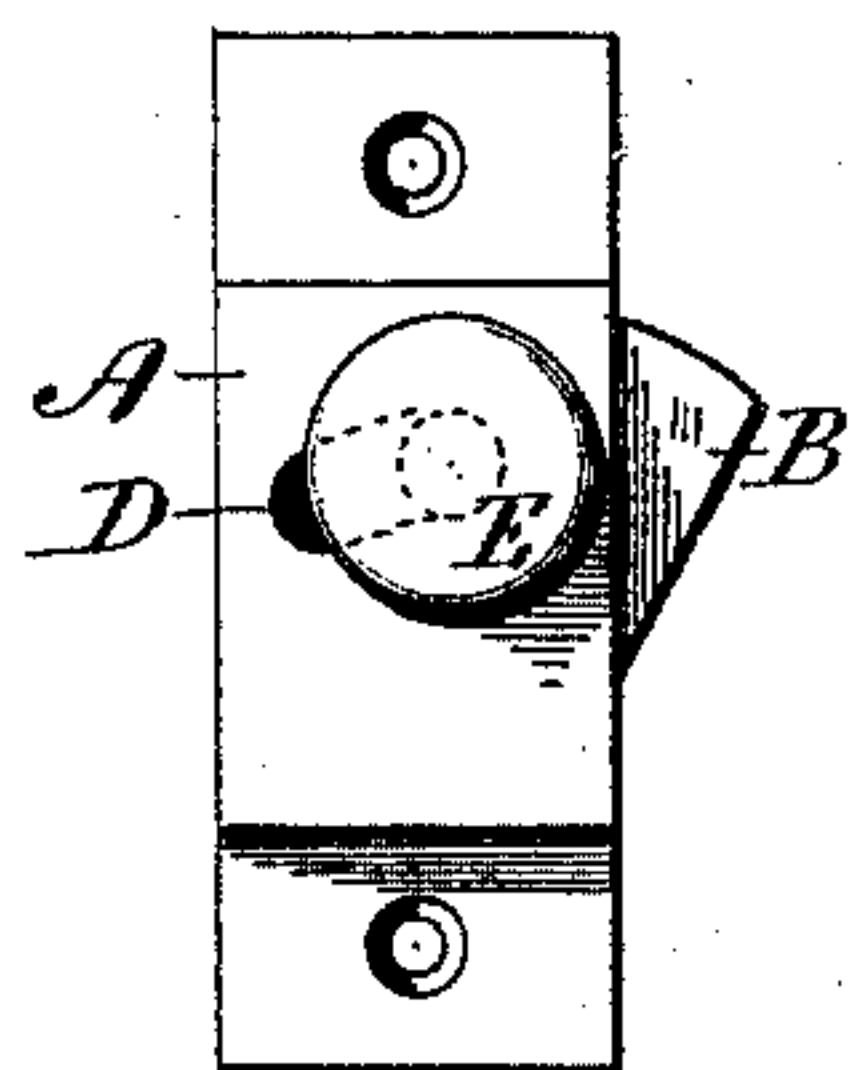


Fig. 2

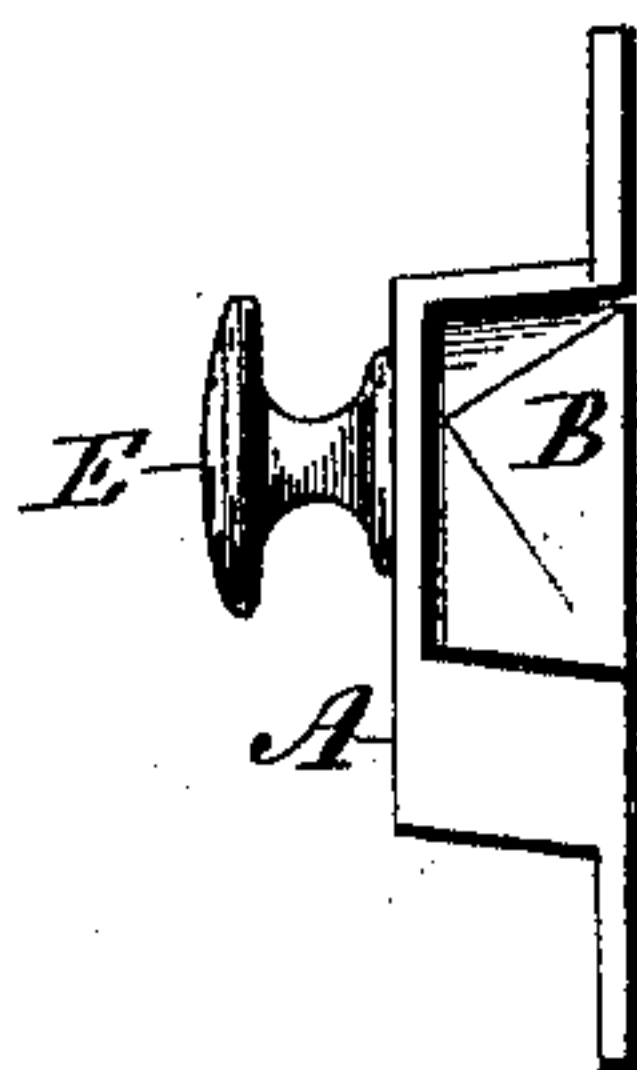


Fig. 3

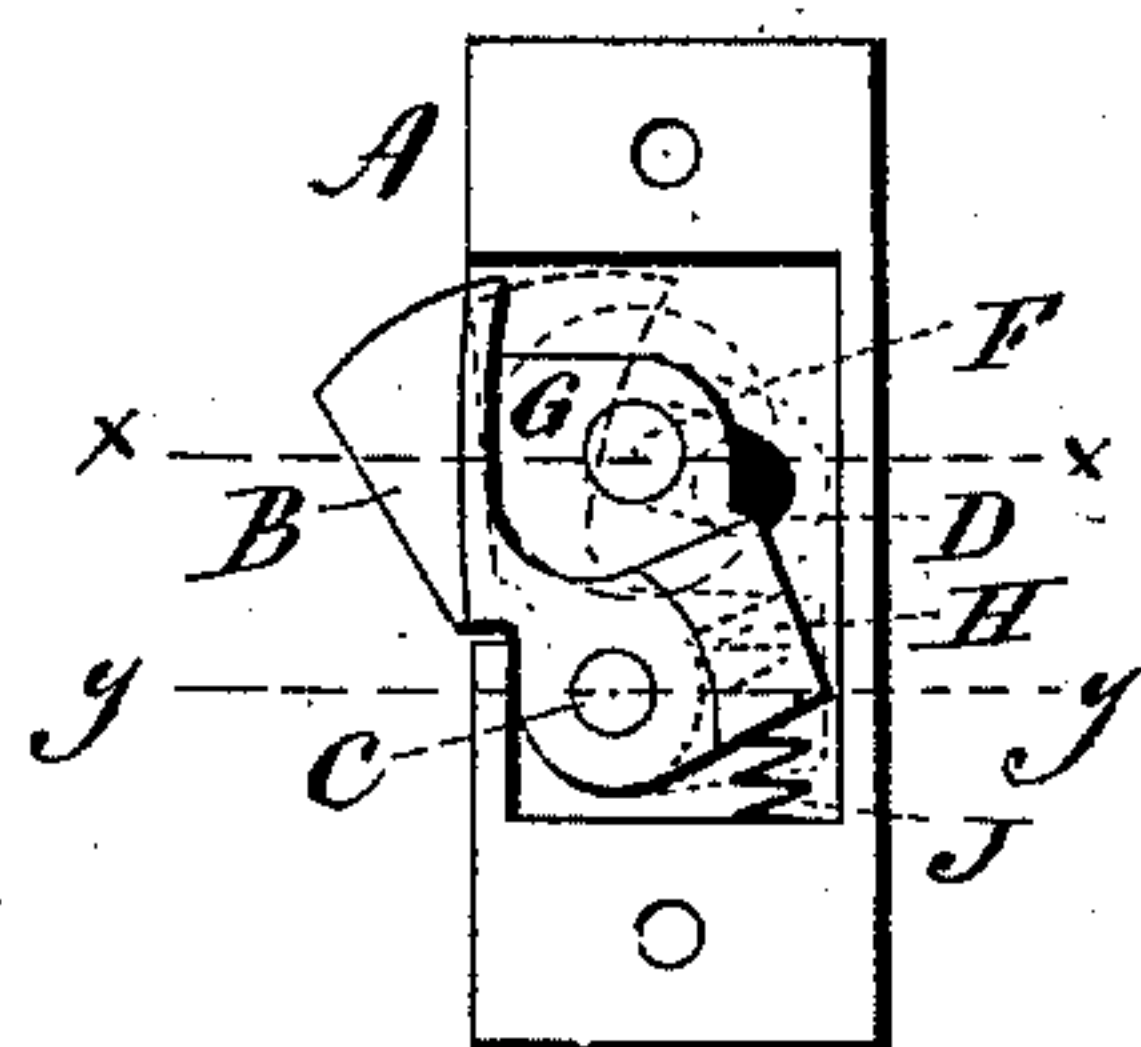


Fig. 4

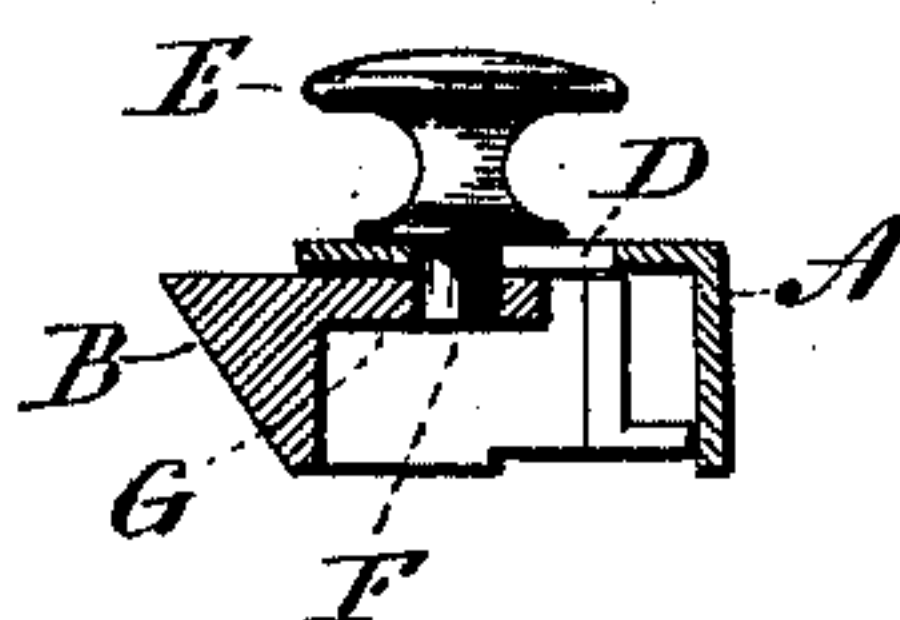
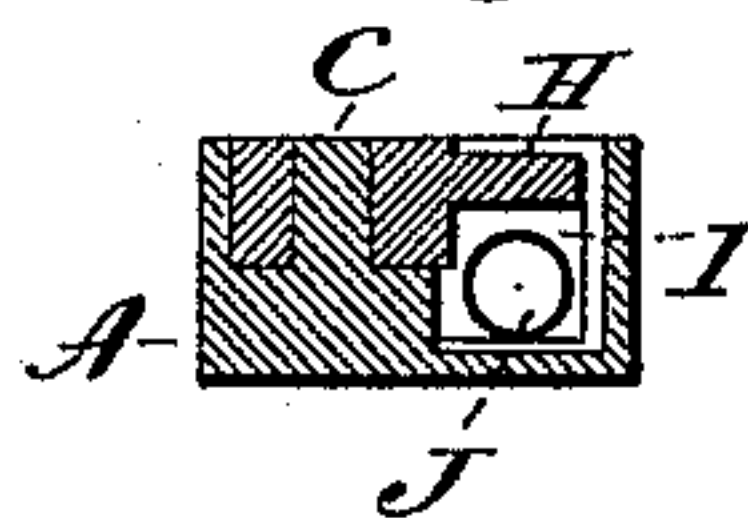


Fig. 5



Witnesses.  
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# UNITED STATES PATENT OFFICE.

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## LATCH.

SPECIFICATION forming part of Letters Patent No. 477,445, dated June 21, 1892.

Application filed April 11, 1892. Serial No. 428,615. (No model.)

*To all whom it may concern:*

Be it known that I, ALBERT A. PAGE, of New Haven, in the county of New Haven and State of Connecticut, have invented a new  
5 Improvement in Cupboard-Latches; and I do hereby declare the following, when taken in connection with accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the  
10 same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a face view of the latch complete; Fig. 2, a side view of the same; Fig. 3, a reverse side view of the same; Fig. 4, a transverse section on line *xx* of Fig. 3, looking up;  
15 Fig. 5, a transverse section on line *yy* of Fig. 3, looking down.

This invention relates to an improvement in that class of latches which are designed for  
20 use upon doors of the smaller class and commonly called "cupboard-latches," and particularly to that class in which the latch is provided with a beveled nose, and having combined with it a spring, so that the latch engages automatically when the door is closed,  
25 the bolt being drawn by means of a sliding handle upon the outside of the door, the object of the invention being a simple construction and yet produce a durable and serviceable latch; and the invention consists in the  
30 construction as hereinafter described, and particularly recited in the claim.

A represents the case, which, as illustrated, is adapted to be applied to the outside of the  
35 door in the usual manner for applying rim-latches. Within the case the bolt B is hung upon a pivot C, the nose of the bolt projecting through a corresponding opening in the side of the case and so that the bolt may swing  
40 upon the pivot outward and inward in a plane parallel with the plane of the case, as represented in broken lines, Fig. 3. The case is constructed of a box-like form, open upon its reverse side, and is cast with the pivot C as  
45 an integral part thereof. Above the pivot in the outside of the case a segment-shaped slot D is formed, concentric with the pivot C, on which the latch-bolt swings. Upon the outside of the case a knob E is applied, having  
50 a shank F, which extends through the slot D and into a projection G on the latch-bolt and

there secured as by riveting the end of the shank upon the reverse side of the projection G of the bolt, which secures the knob to the bolt and permits it to slide to the right and  
55 left, working through the slot D and so that under such sliding of the knob the bolt will be moved accordingly. The bolt being introduced into the case through the open rear side and thus secured to the knob, the flange  
60 of the knob taking a bearing upon the outside of the case, serves to confine the bolt within the case upon its pivot, so that its escape is impossible until the knob shall be removed. The bolt is constructed with an arm H, pro-  
65 jecting from its hub upon the side opposite the bolt. This arm is recessed upon its inside to form two sides of a spring-chamber I, the other two sides being formed by the adjacent portions of the case, as seen in Fig. 5.  
70

When the latch-bolt is introduced into the case, a spiral spring J of the requisite length is placed in the spring-chamber, one end of the spring bearing upon the arm at the inner  
75 end of the spring-chamber and the other end of the spring bearing upon the interior of the case below, as represented in Fig. 3, and so that when the parts are secured together, as before described, the tendency of the spring  
80 will be to force and yieldingly hold the latch-bolt in its projected position; but as the knob is moved through the slot F to draw the bolt into the case the spring yields, as indicated in broken lines, Fig. 3, and then when the  
85 bolt is free the reaction of the spring will force the bolt into its out or thrown position.

By constructing the bolt with the spring-chamber I, as described, the spring is inclosed, so as to be securely held in its place and so that there is no liability of its dis-  
90 placement. Consequently no covering-plate is necessary for the open side of the case, as the spring cannot escape when the mechanism is exposed, as may be in many classes of spring-latches of this character.  
95

The formation of the bolt and the case, as described, permits each to be cast complete and the parts assembled without any considerable degree of mechanical manipulation or  
100 labor. The latch thus constructed is not only extremely cheap in production, but is strong, useful, and durable.



I claim—

The herein-described cupboard-latch, consisting of a case open on the reverse side, combined with the bolt B, hung upon a stationary pivot C in the case and so as to swing in a plane parallel with the plane of the case, the nose of the bolt projecting through an opening in the side of the case, the bolt constructed with an arm H, projecting from its hub, and the said arm constructed with a recess to form with the case a spring-chamber I upon its inside, a spiral spring J, arranged

in the said spring-chamber, and a knob E upon the outside of the case, extending through a slot D, formed for it in the case and into connection with the bolt, substantially as described. 15

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

ALBERT A. PAGE.

Witnesses:

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CHARLES L. BALDWIN.