

(No Model.)

2 Sheets—Sheet 1.

J. A. GIESE.

LATCH AND LOCK COMBINED.

No. 481,261.

Patented Aug. 23, 1892.

Fig. 1.

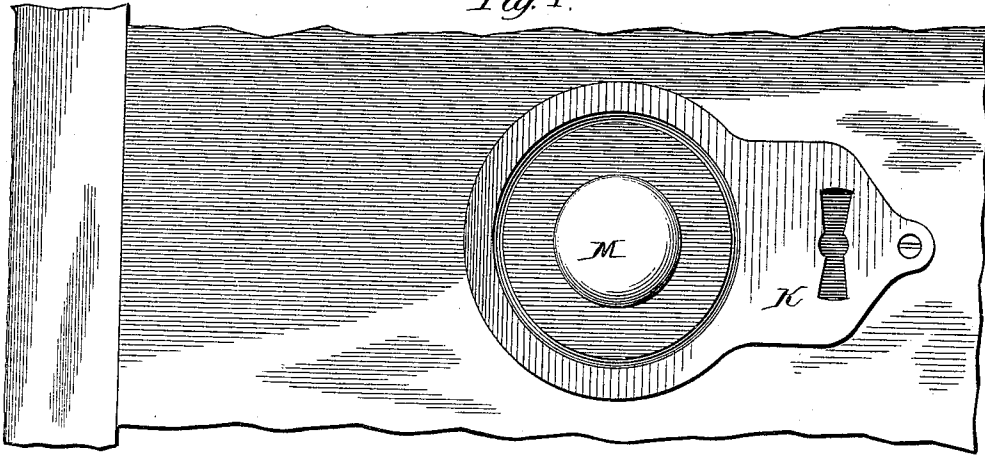
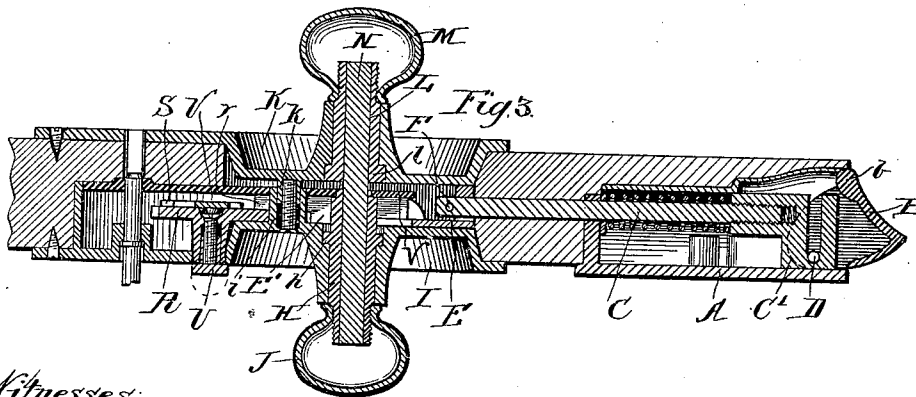
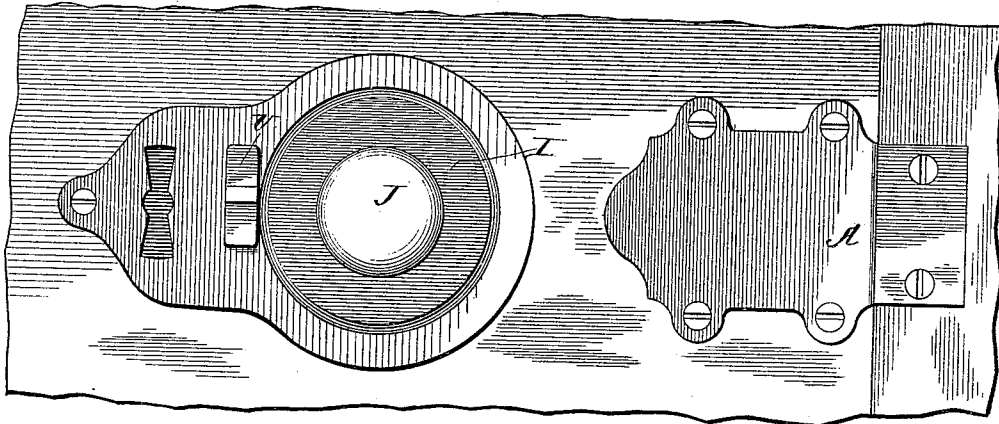


Fig. 2.



Witnesses:

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2 Sheets—Sheet 2.

No. 481,261.

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UNITED STATES PATENT OFFICE.

JAMES A. GIESE, OF CHICAGO, ILLINOIS, ASSIGNOR TO THE ADAMS & WEST-LAKE COMPANY, OF SAME PLACE.

LATCH AND LOCK COMBINED.

SPECIFICATION forming part of Letters Patent No. 481,261, dated August 23, 1892.

Application filed March 14, 1892. Serial No. 424,748. (No model.)

To all whom it may concern:

Be it known that I, JAMES A. GIESE, a citizen of the United States, residing in Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Door-Latches, of which the following is a specification, reference being had to the accompanying drawings.

In many situations it is desirable to have the knob of the latch a considerable distance from the edge of the door, this being especially desirable where the door is situated in a narrow passage.

My invention is designed to provide a latch suitable for such situations and containing the improvements hereinafter described and claimed. Some of the purposes had in view are to provide for the easy assembling and adjustment of the parts of the latch and for the convenient securing of the same to the door.

In the accompanying drawings, Figure 1 is a view of the latch from the outside, showing, also, a portion of the door and jamb adjacent thereto. Fig. 2 is a view of the same from within. Fig. 3 is a horizontal section of the same. Fig. 4 shows the portion of the latch which contains the operating mechanism, the inner plate of the casing being removed to show the interior. Fig. 5 shows the same parts as Fig. 4, a section being made of a portion of the operating mechanism to show the interior construction. Figs. 6 and 7 show details hereinafter described.

A is a casing secured to the edge of the door and containing the catch B, which is hinged to the casing at *b*. Attached to the catch B is the latch-rod C, which has a slotted head C' to engage with the pin D of the catch. The inner end of the latch-rod C is connected to the yoke E, a cotter F securing the two together. The latch-rod C is screwed into the head C', and the amount of its projection can be thus precisely adjusted. Any trifling error in the placing of the cases containing the catch and the operating mechanism, respectively, is thus provided for. After the insertion of the cotter F the latch-rod cannot revolve, and its adjustment is thus preserved.

The yoke E is operated by the follower G,

Figs. 4 and 5, which is formed upon or attached to a hollow spindle H, journaled in a bearing in the plate I. This plate forms one side of the casing for the operating mechanism. The spindle is inserted from the inner side of the plate I and is provided with a flange *h* near its inner end. Its outer end is threaded, and a knob J is screwed thereon.

Upon the other side of the door is a plate K, having lugs *k* registering with corresponding recesses *i* in the plate I, whereby the proper apposition of the two plates is secured. Within the plate K is journaled a hollow spindle L, provided at its inner end with a flange *l* and having a knob M, secured upon its outer end. The two spindles H and L are connected by a square spindle N, passing through them both. The forked ends E' E' of the yoke E extend some distance back of the follower G and are recessed below to accommodate the springs O O, which serve to project the yoke. (Vide Figs. 5 and 6.) The pins P P serve to support the springs O in position and assist in guiding the yoke E.

A locking device is provided, consisting of a slide R, having lugs *r r*, corresponding in position with the ends of the yoke E. The slide R is capable of transverse movement, so that the lugs *r r* may be brought into or out of apposition with the ends of the yoke E. The tumbler S, which is a slide having its movement at right angles to that of the locking slide R, and is projected by a spring T, keeps the slide R in either position to which it may be shifted. (Vide Figs. 4, 5, and 7.) The tumbler S acts upon the slide R by means of a slot or opening *s*, the slide of which bears against the stud *s*², projecting from the slide R. The tumbler S may be made to form a positive lock for the slide R or a yielding lock, according as the opening *s* is made angular or curved. It is shown in the latter form and is arranged to be operated by the thumb-piece U on the inside of the door, thus rendering the use of the key unnecessary, except from the outside. In order to make the lock conveniently available for a right or left hand door without alteration, the keyhole is made double, as shown herein. The connection of the yoke and latch-rod is such as to permit

the catch and rod to yield when the door is shut, whether the locking device holds the yoke or not. A plate V, Fig. 3, which is secured to the plate I, serves to keep the operating mechanism in place. It does not extend so far as to cover the yoke E where it is secured to the latch-rod C, and the cotter F is thus accessible without removing the plate V.

In mounting the latch upon the door the latch-case A is properly secured in the edge of the door, the latch-rod C extending into the cavity made for the reception of the plates I K. The plate I is put in place and the cotter F inserted, so as to connect the latch-rod C and the yoke E. The square spindle N is inserted in a hollow spindle L or H, and the plate K is then put in position and the two plates I and K are then clamped together by the screws, which fit the recesses *i*, and are tapped into the bosses *k*. The lock may be thus fitted to a door of any thickness by simply making the bosses *k* and their screws of sufficient length.

I claim—

1. The combination, in a door-latch, of plates adapted to be secured to the opposite sides of the door, hollow spindles journaled in each of said plates and provided with lugs on their inner ends and with knobs secured to their outer ends, whereby they are secured in said plates independent of each other, a square spindle connecting said hollow spindles, and latch-

operating devices connected to said spindles, substantially as described.

2. The combination, in a door-latch, of a casing secured to the edge of the door and containing the catch and latch-rod, the inner end of said rod projecting into a recess which extends through the door and is adapted to receive the plates forming the casing for the operating mechanism, a yoke forming a part of the operating mechanism and extending beyond the inner plate inclosing said operating mechanism, means of attaching the projecting portion of said yoke to the latch-rod, plates adapted to be secured to opposite sides of the door and connected by clamping-screws, hollow spindles journaled in each of said plates, and a square spindle connecting said hollow spindles, substantially as described.

3. The combination, in a door-latch having the operating mechanism and the latch proper in separate cases, of a latch-rod connecting the latch and operating mechanism and having a head C', to which it is adjustably connected by a screw, a yoke adapted to receive the inner end of the latch-rod, and a fastening connecting said latch-rod and yoke, which prevents the turning of said rod, substantially as and for the purpose specified.

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Witnesses:

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