

No. 812,092.

PATENTED FEB. 6, 1906.

E. H. ROY.  
DOOR LATCH.

APPLICATION FILED FEB. 18, 1905.

FIG. 1.

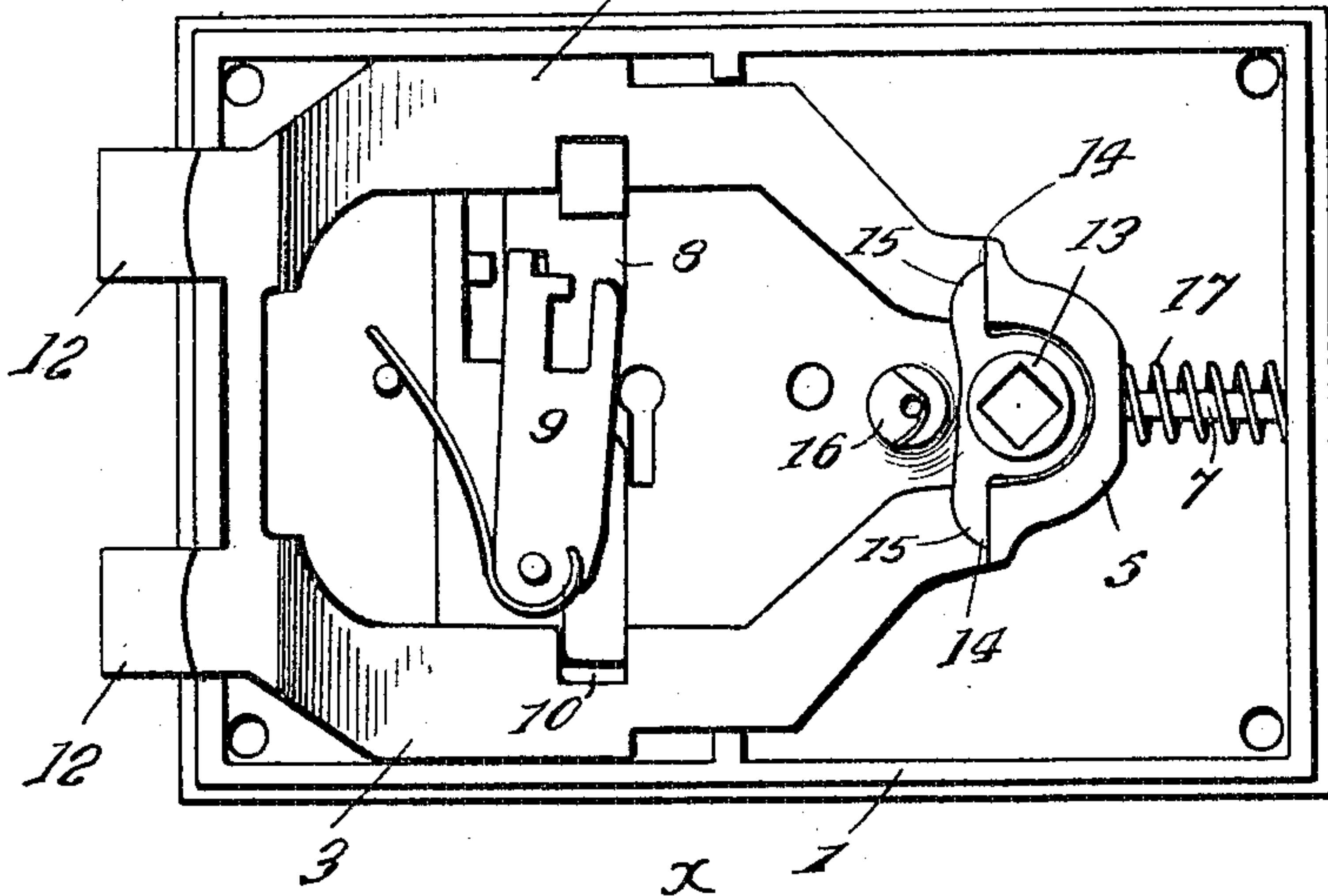


FIG. 2.

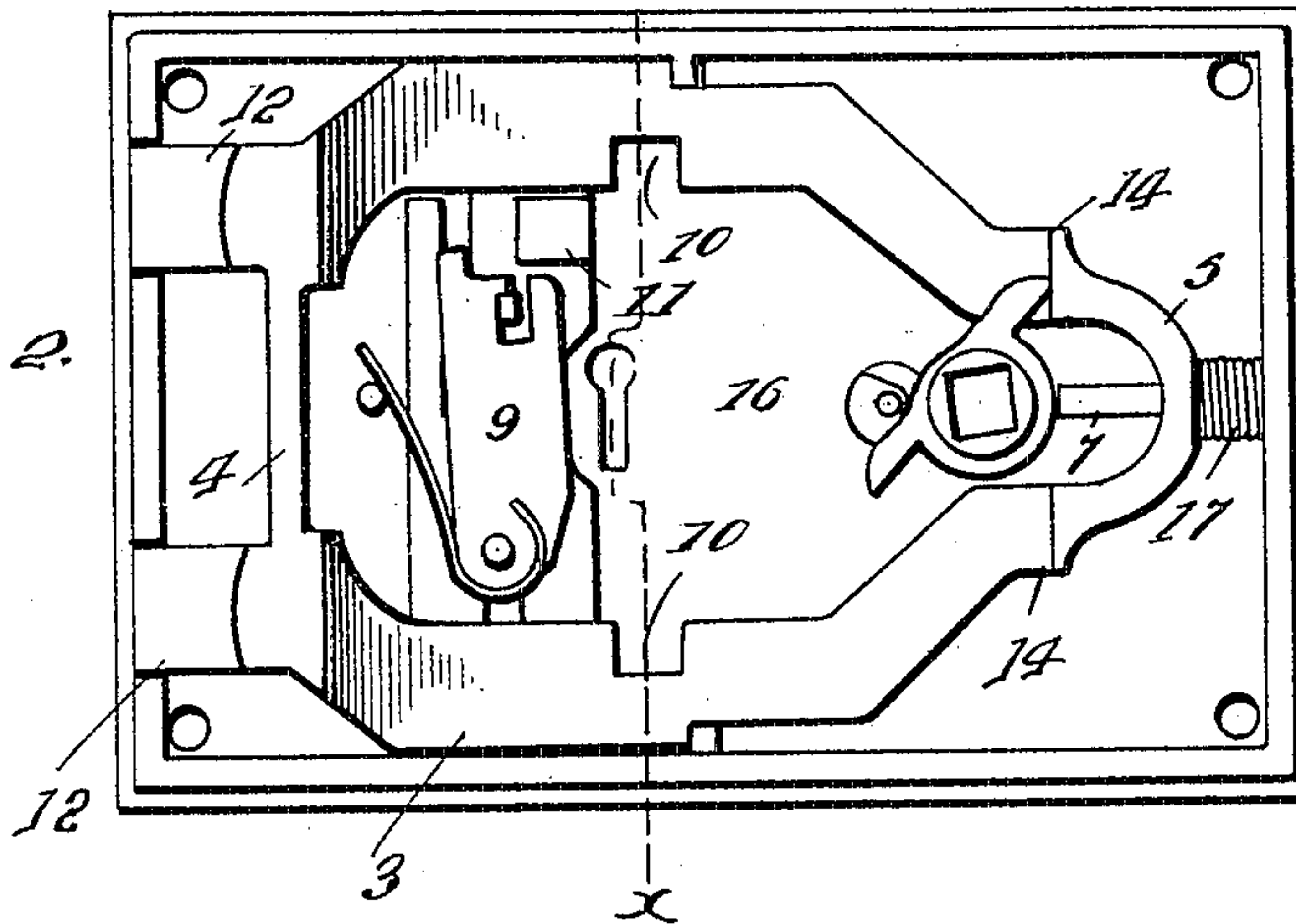


FIG. 4.

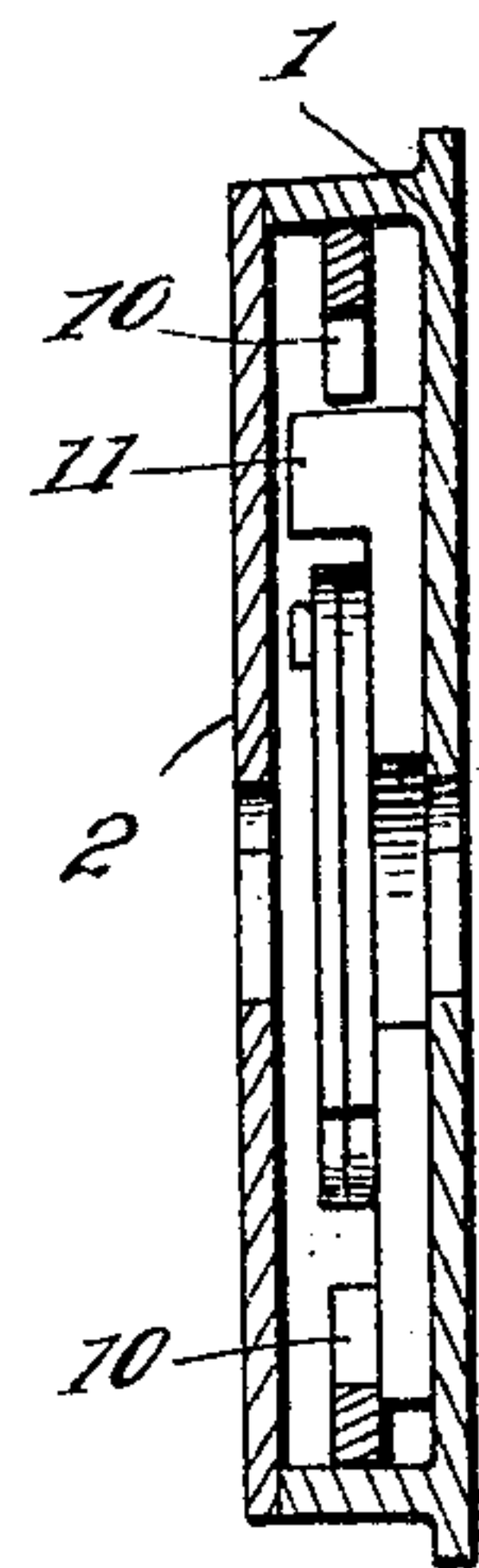
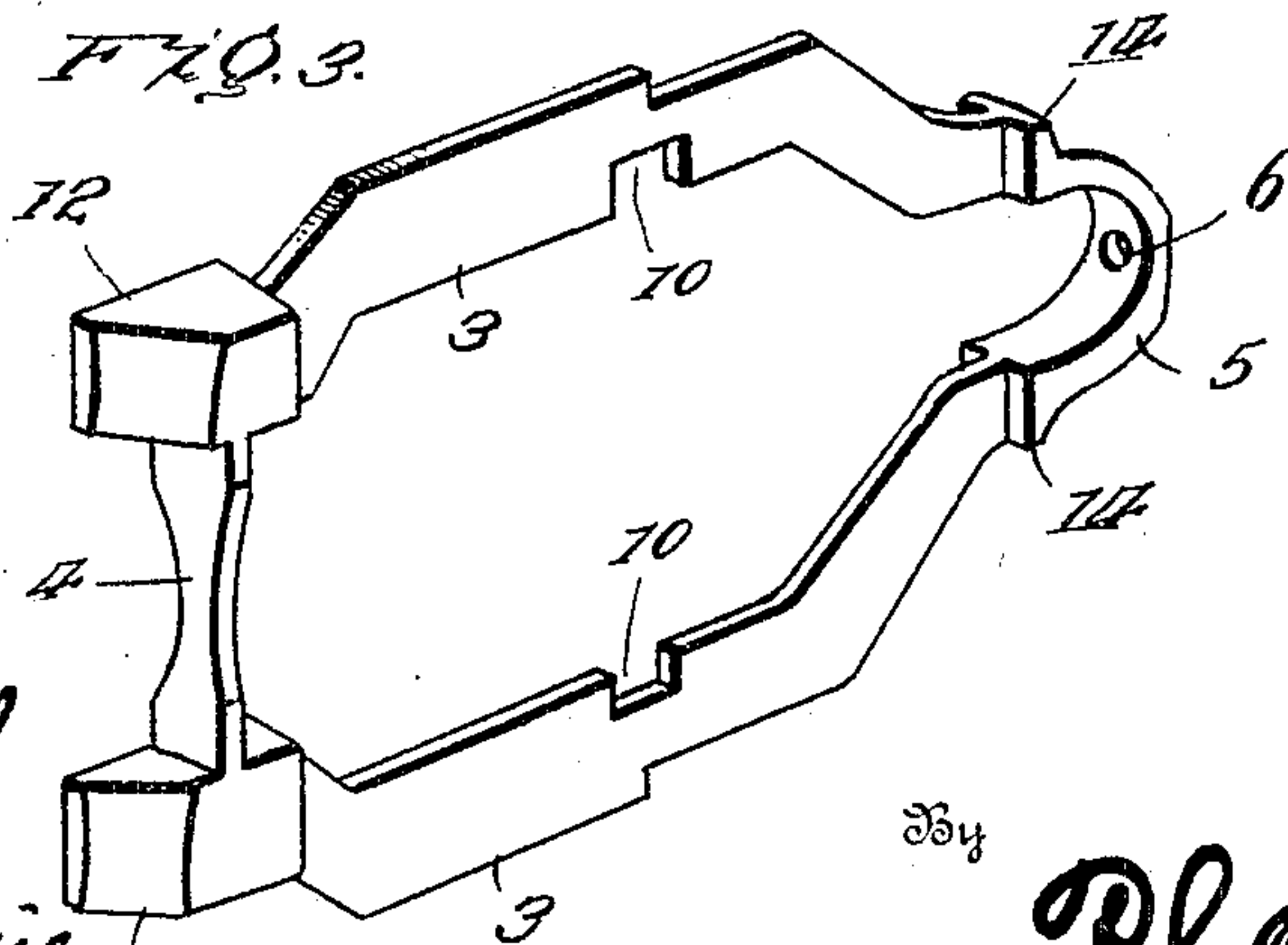


FIG. 3.



Inventor

E. H. Roy,

Witnesses

*Wm. H. Woodson*  
72

By

*Ph. H. Lacy*, Attorneys



# UNITED STATES PATENT OFFICE.

EDWARD H. ROY, OF NASHVILLE, TENNESSEE.

## DOOR-LATCH.

No. 812,092.

Specification of Letters Patent.

Patented Feb. 6, 1906.

Application filed February 18, 1905. Serial No. 246,286.

*To all whom it may concern:*

Be it known that I, EDWARD H. ROY, a citizen of the United States, residing at Nashville, in the county of Davidson and State of Tennessee, have invented certain new and useful Improvements in Door-Latches, of which the following is a specification.

This invention provides a door-latch of novel formation embodying a latch-bolt comprising corresponding similar or twin members connected for simultaneous operation, guide means therefor, a knob-spindle hub, a stop to limit the turning of the knob-spindle hub by engaging with either arm thereof, said stop having oppositely inclined or beveled portions to provide ample movement for said arms, and a key-operated lock-bolt co-operating with the latch-bolt for securing it when the door is required to be fastened.

For a full description of the invention and the merits thereof and also to acquire a knowledge of the details of construction of the means for effecting the result reference is to be had to the following description and accompanying drawings.

While the invention may be adapted to different forms and conditions by changes in the structure and minor details without departing from the spirit or essential features thereof, still the preferred embodiment thereof is shown in the accompanying drawings, in which—

Figure 1 is a plan view of a latch embodying the invention, the cap-plate being removed to expose the working parts and illustrate their relation. Fig. 2 is a view similar to Fig. 1, showing the latch-bolt retracted. Fig. 3 is a detail perspective view of the latch-bolt. Fig. 4 is a cross-section on the line  $x x$  of Fig. 2.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

The latch may be of the rim or mortise variety, according to the required application, and comprises a casing consisting of a box 1 and cap-plate 2. The latch-bolt consists of similar or twin members 3, connected near one end by a cross-piece 4 and at the opposite end by means of a yoke 5, having an opening 6 to receive a guide-pin 7, extended into the box from its inner end. The members 3 of the latch-bolt are oppositely deflected intermediate of their ends to provide ample clearance for the lock-bolt 8 and the

coöperating tumblers 9. Each member is provided upon its inner side with a notch 10 to receive the projection 11 of the lock-bolt when the latter is projected into engagement with the latch-bolt for securing the same against movement. The engaging ends 12 of the latch-bolt members are beveled in the usual manner to admit of automatic retraction of the latch-bolt when the bevels of the engaging ends 12 are riding upon the keeper or box provided to receive the projecting ends of the latch-bolt members. The cross-piece 4 braces the members 3 near their outer ends and serves in a measure to limit their outward movement. The yoke 5 performs a similar office in connection with the hub 13, through which the knob-operated spindle (not shown) is adapted to pass. Shoulders 14 are formed at the ends of the yoke 5 upon opposite sides of the members 3, and the arms 15 of the hub 13 coöperate therewith when the knob-spindle is actuated to retract the latch-bolt. A post 16 is located in line with the guide-pin 7 and hub 13 and is deflected upon opposite sides to admit of the hub having ample movement. This post engages with one or the other of the arms 15 and limits the turning of the hub and knob-spindle when the latch-bolt is fully retracted. The middle portion of the members 3 occupies a central position with reference to the engaging ends 12 and yoke 5 to admit of the latch-bolt being reversed, so as to be adapted either for a right or a left hand door. The latch-bolt and casing are so proportioned that the outer edges of the members 3 engage with the inner walls of the sides of the box or casing, so as to give proper direction to the latch-bolt in its reciprocating movements. The yoke 5 is of such form as to snugly embrace the hub 13, as shown most clearly in Fig. 1. The guide-pin 7 prevents lateral displacement of the inner end portion of the latch-bolt and supports a coil-spring 17, which normally exerts an outward pressure upon the latch-bolt to hold its engaging ends projected.

The key-operated lock-bolt 8 is transversely arranged within the casing and is formed with a lateral projection 11 for engagement with one or the other of the notches 10, according to the relative position of the latch-bolt, so as to lock the latter when it is required to fasten the door. Obviously when the key-operated lock-bolt is in engagement with the latch-bolt, as shown in



Fig. 1, said latch-bolt cannot be retracted by means of the knob-spindle. When it is required to open the door, a key fitted to the latch must be inserted therein to effect withdrawal of the lock-bolt 8, thereby releasing the latch-bolt, which may then be operated by the knob-spindle in the accustomed way.

Having thus described the invention, what is claimed as new is—

10 In a latch, the combination of the casing, a latch-bolt comprising similar members connected at their inner ends by means of a yoke, a knob-spindle hub fitted in the yoke and having its arms arranged to engage with

the extremities of said yoke, a guide-pin located upon one side of the knob-spindle hub and having engagement with said yoke, and a post upon the opposite side of said knob-spindle hub to form a stop therefor and beveled upon opposite sides to provide ample movement for said hub, substantially as specified. 15 20

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

EDWARD H. ROY. [L. s.]

Witnesses:

WM. E. STEGER,

T. M. STEGER.