

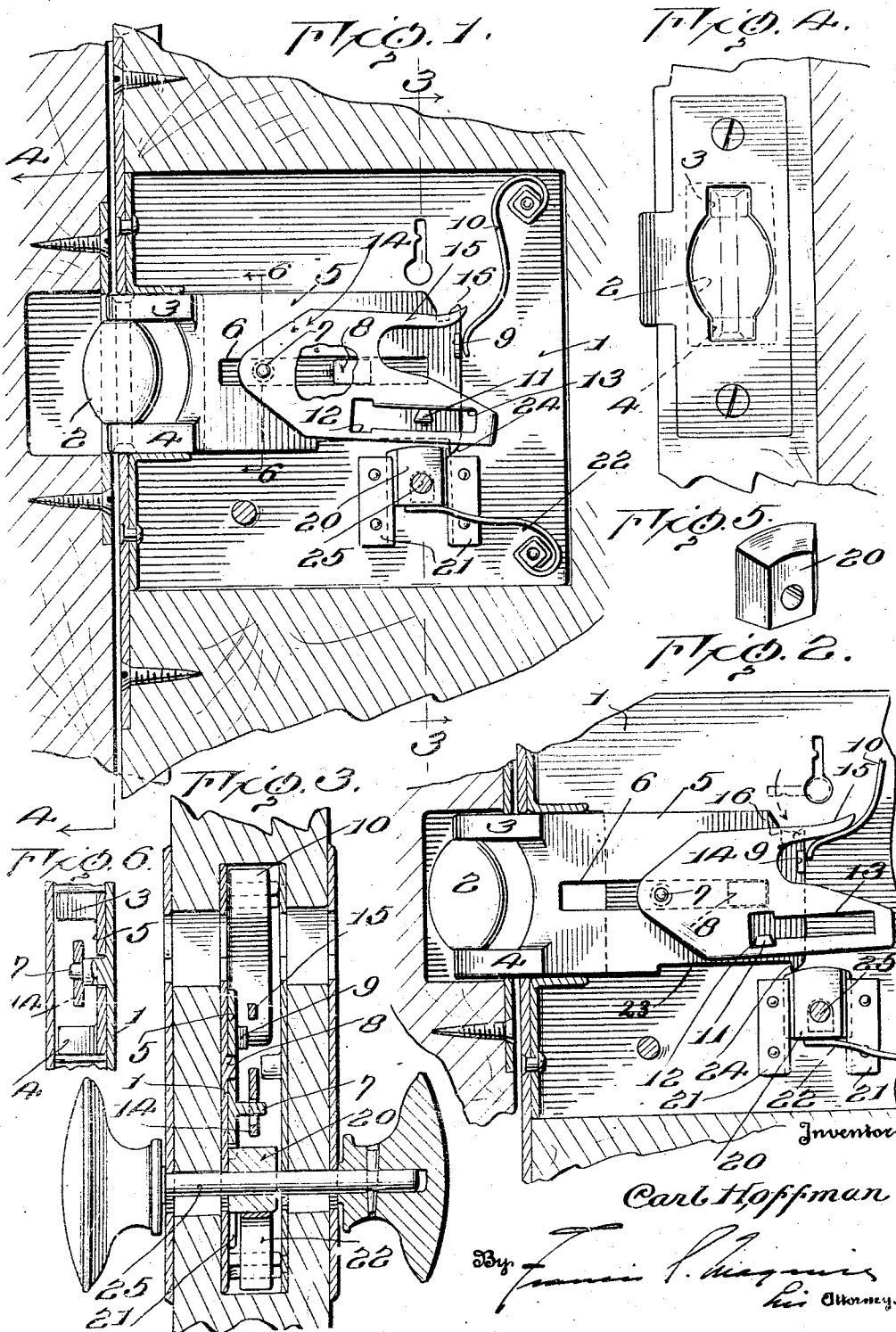
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LATCH LOCK FOR DOORS

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UNITED STATES PATENT OFFICE.

CARL HOFFMAN, OF ALLENTOWN, PENNSYLVANIA.

LATCH LOCK FOR DOORS.

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To all whom it may concern:

Be it known that I, CARL HOFFMAN, a citizen of the United States, residing at Allentown, in the county of Lehigh and State of Pennsylvania, have invented certain new and useful Improvements in Latch Locks for Doors; 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.

My invention relates to fasteners for doors and more particularly to a device of this character combining in a single element a latch and lock, and the object of my invention is to provide an improved and simple latch for use in the ordinary fastening of a door in closed position so the latching means may be disengaged from cooperation with its striker by pressure, improved means being employed for preventing the latch from being accidentally positioned as a lock, and one which may be operated when used as a lock by key actuated means which is composed of but few parts so arranged as to not readily get out of order.

In the drawings, Figure 1 is a view in side elevation of my improved device used as a latch, the cover plate of the case being removed and portions of the door and its casing being shown in section. Figure 2 is a view similar to Figure 1 showing the latch in locking position. Figure 3 is a vertical sectional view on line 3—3, Figure 1. Figure 4 is a front view of the latch. Figure 5 is a detail of the stop block. Figure 6 is a sectional view on line 6—6, Figure 1.

My improved latch includes a case 1 of usual form comprising bed plate, edge plate and cover with the required posts and openings. 2 indicates the latch shown in the form of a sphere with its top and bottom flattened, a bore extending through the sphere from top to bottom for the purpose of mounting it for turning movement between arms 3 and 4 of a sliding plate 5. This plate is slotted at 6 to form a way for guiding the plate over a pin 7 and a lug 8 projecting from the bed plate of the case. The plate has a flanged portion 9 against which a spring 10 bears for normally holding the plate extended in locking position, and it is also provided with a stud 11 which fits in a cut out 12 at one end of a slot 13 in tumbler 14 to hold the latch in extended dead lock position when moved to such posi-

tion under tension of the spring 10. When the parts are in this position with the plate 5 extended, the spring 10 serves not only to hold the plate extended but also acts on finger 15 of the tumbler to maintain its cut out 12 in engagement with the stud 11, see Figure 2. To retract the plate from this position it is necessary to dislodge the tumbler by a key which first engages the finger 15 of the tumbler then talon 16 of the plate 5, the latter engagement effecting the movement of the plate into latching position. The tumbler is pivoted on the pin 7.

As shown in Figure 1 the latch is in the ordinary latching position and to prevent accidental movement thereof to a locked position under the influence of the spring 10 I provide a stop block 20 slidably supported on the bed plate of the lock case between two parallel under cut bars 21, a spring 22 tending to normally hold the stop block in the recessed portion 23 of the plate 5 so that it will be in the path of the edge 24 of the plate and the latter thus prevented from moving further outwardly. This stop block is moved to and from blocking position by a knobbed spindle 25, aligned slots in the door plates and bed and cover being provided for this movement. If it is desired to use the latch as a lock it is first necessary to move the stop block from the path of the edge 24 of the plate, and when this stop is so moved out of the path of the edge 24 the spring 10 will force the plate 5 outwardly into locking position. Retraction of the lock from this position may only be accomplished by means of a key acting first on the tumbler to disengage it from the stud 11 of the plate and then against the talon 16 of the plate. The key for so moving the plate may be inserted from inside or outside the door.

The operation of the device being manifest from the foregoing description of the parts further reference thereto is not necessary.

I claim as my invention:

1. A fastener for a door, including a case, a spring actuated latch normally held projected into locking position, key operated means for retracting said latch to latching position, said latch having a pair of spaced abutments thereon, and a spring held stop engaging said latch intermediate said abutments to prevent it from assuming locking position.

2. A fastening device for a door including a case, a spring actuated latch normally held projected into locking position, said latch having a recess along one edge, a key-operated tumbler-controlled means for retracting said latch to latching position, and a spring held stop block movable into the recess of said latch to prevent it from assuming locking position.
- 19 3. A fastener for a door including a case, a spring actuated latch normally held projected into locking position, key operated tumbler controlled means for retracting said latch to latching position, and yieldable means controlled independently of said key operated means for engaging said latch to prevent it from assuming locking position.
- 15 4. A fastener for a door including a case, a latch, a spring for normally projecting said latch into locking position, tumbler controlled means for retaining said latch in locking position, said bolt projecting spring cooperating with said tumbler controlled means when said latch is in locking position for maintaining the same in engagement therewith, and key controlled means for retracting said latch.
5. A fastener for a door including a case, a latch, a spring for normally projecting said latch into locking position, tumbler controlled means for retaining said latch in locking position, said bolt projecting spring cooperating with said tumbler controlled means when said latch is in locking position for maintaining the same in engagement therewith, key controlled means for retracting said latch, and means independent of said key controlled means for engaging said latch to prevent it from assuming locking position.
- 20 In testimony whereof I have signed this specification.
- CARL HOFFMAN.