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A. J. STOOPS.

LATCH AND LOCK.

(Application filed Aug. 13, 1897. Renewed Jan. 7, 1899.)

(No Model.)

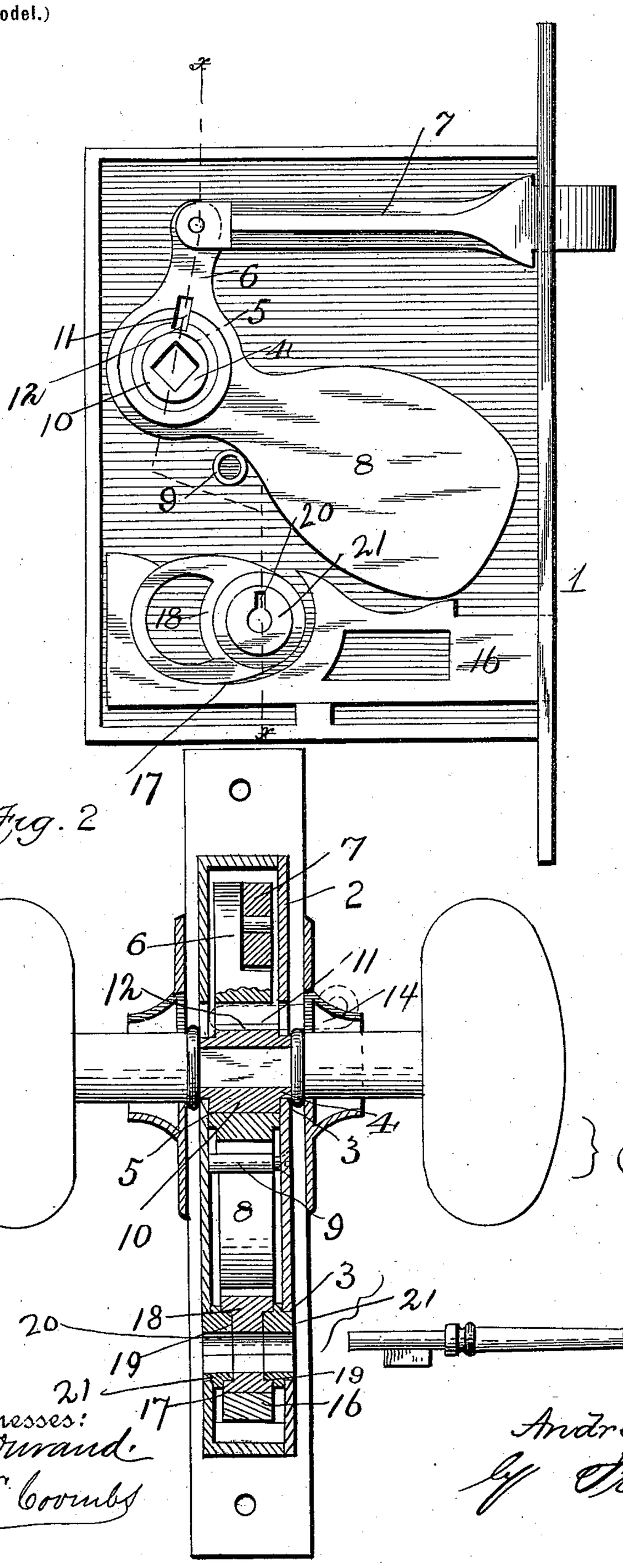

Fig. 1.

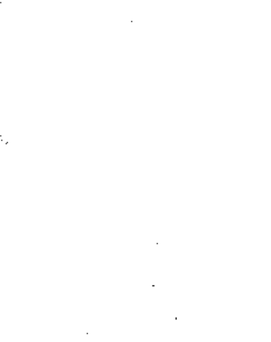

Fig. 3.

Fig. 2

Witnesses:
F. L. Ourand.
Jos. L. Coombs

Inventor:
Andrew J. Stoops,
by Fred C. Baker,
Attorney.

UNITED STATES PATENT OFFICE.

ANDREW JACKSON STOOPS, OF CHATTANOOGA, TENNESSEE.

LATCH AND LOCK.

SPECIFICATION forming part of Letters Patent No. 620,377, dated February 28, 1899.

Application filed August 13, 1897. Renewed January 7, 1899. Serial No. 701,522. (No model.)

To all whom it may concern:

Be it known that I, ANDREW JACKSON STOOPS, a citizen of the United States, residing at Chattanooga, in the county of Hamilton and State of Tennessee, have invented certain new and useful Improvements in Door Latches and Locks; 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 an improved door lock and latch; and its object is to provide an improved construction of the same in which the latch is pivotally connected with an arm formed with a rotatable hub having a slot in its interior and provided with a weighted extension, a cylindrical sleeve on which said hub is journaled, formed with a groove or slot and an angular opening, a spindle passing through said opening, and a key engaging with said slots.

It is also an object to provide the lock-bolt with a curved recess, in which works a cam operated by a key to shoot and retract the bolt, and said cam on opposite sides being provided with rotatable skives having key-openings, one of which must register with the key-opening in the cam before the key can be inserted, all as hereinafter fully described and claimed.

In the accompanying drawings, Figure 1 is a view of a door latch and lock constructed in accordance with my invention, one of the cover-plates and the spindle being removed to show the interior construction. Fig. 2 is a vertical section on the line xx, Fig. 1. Fig. 3 is a detail transverse sectional view of the cam for operating the bolt.

In the said drawings the reference-numeral 1 designates a lock-casing having the usual openings for the passage of the latch and bolt, and the cover-plates 2 are formed with circular holes 3. In these holes fit the reduced cylindrical ends 4 of a latch 5, provided with an arm 6, which is pivotally connected with the inner end of a latch 7. This hub is also formed with a weighted extension 8, the tendency of which is to rotate the hub and throw the latch outward. A stop 9 limits the downward movement of said extension. This hub is journaled on a sleeve 10, journaled in the lock-case, and is formed with a slot or groove 11 in its interior. The sleeve is formed with a corresponding slot or groove 12 and is formed with an angular opening for the passage of the knob-spindle 13, and fitting in these slots or grooves is a removable key 14. This key can be inserted from the inside or outside, suitable openings being made in the escutcheons for such purpose, and when inserted by rotating the spindle the sleeve and hub will be accordingly rotated and the latch retracted. When the key is removed, the spindle will turn without operating the latch, so that it will be impossible to retract the latch until the key is again inserted.

The numeral 16 designates the bolt, formed with a curved recess 17, in which works a cam 18, provided at opposite sides with circular recesses or depressions 19 near one end and with a keyhole or opening 20. Engaging with these recesses are rotatable skives or circular blocks 21, which work in circular holes in the cover-plates. These skives or blocks have corresponding key openings or holes, and when it is desired to insert the key the skive on that side from which the key is to be inserted must be turned so that its keyhole will be in coincidence with the keyhole in the cam. After the key has been inserted by turning the same the cam will be correspondingly turned, shooting or retracting the bolt, as the case may be.

From the above it will be seen that after the bolt-spindle has been turned to retract the latch upon its release the weighted extension will fall by gravity and force the latch outward.

Having now fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a door-latch, the combination with the rotatable sleeve having a groove or slot, the spindle passing through said sleeve, the hub journaled in sleeve and formed with a slot or

groove, the removable key, the weighted extension, and the arm pivotally connected with the hub, substantially as described.

2. In a door-lock, the combination with the bolt having a curved recess, of the rotatable cam engaging therewith, and formed with a keyhole and with circular recesses at opposite sides, and the rotatable skives having keyholes, seated in said recesses, substantially as described.

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

ANDREW JACKSON STOOPS.

Witnesses:

JNO. C. VANCE,

R. D. TWINAM.