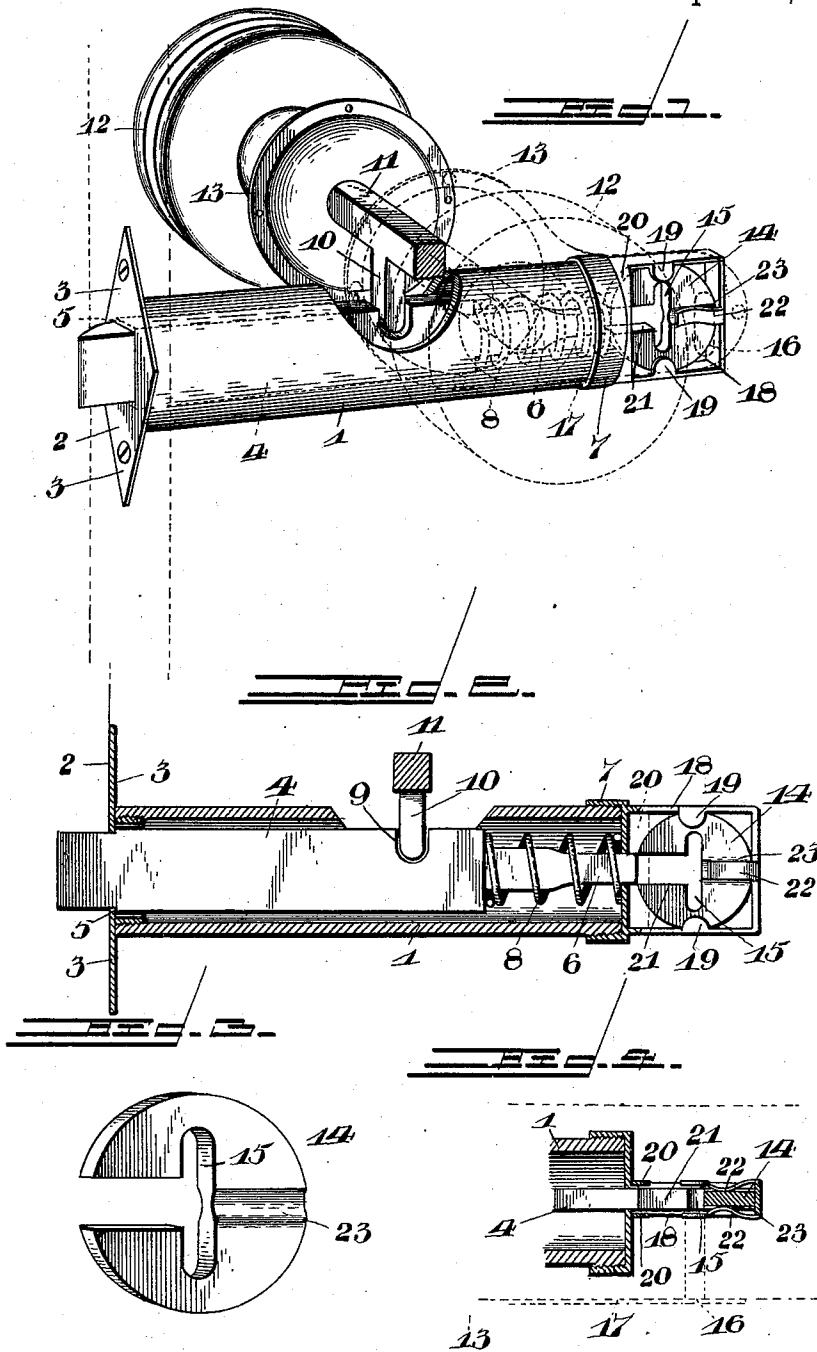


(No Model.)

C. E. AMBS.
LATCH AND LOCK COMBINED.

No. 568,653.

Patented Sept. 29, 1896.



Witnesses

A. H. Boyle
C. E. Ambs

By his Attorneys,

Charles E. Ambs,

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UNITED STATES PATENT OFFICE.

CHARLES ELSWORTH AMBS, OF MATTESON, MICHIGAN.

LATCH AND LOCK COMBINED.

SPECIFICATION forming part of Letters Patent No. 568,653, dated September 29, 1896.

Application filed May 11, 1896. Serial No. 591,083. (No model.)

To all whom it may concern:

Be it known that I, CHARLES ELSWORTH AMBS, a citizen of the United States, residing in Matteson township, in the county of Branch and State of Michigan, have invented a new and useful Combination Latch and Lock, of which the following is a specification.

My invention relates to a latch provided with locking devices where it is adapted to perform the functions of both a latch and a lock to simplify the construction of devices of this class.

Further objects and advantages of this invention will appear in the following description, and the novel features thereof will be particularly pointed out in the appended claims.

In the drawings, Figure 1 is a view of a latch constructed in accordance with my invention. Fig. 2 is a longitudinal section of the same. Fig. 3 is a detail view of the tumbler detached. Fig. 4 is a detail section at right angles to the plane of Fig. 2 through the tumbler and contiguous parts to show the means for securing the same in place.

Similar numerals of reference indicate corresponding parts in all the figures of the drawings.

1 designates a tubular casing or barrel provided at its outer end with a removable cap 2, having securing devices which, in the construction illustrated, consist of ears 3, perforated for the reception of screws. Mounted in the casing is a sliding latch-bolt 4, which projects through an opening in the outer cap and is limited in its outward movement by means of a shoulder 5. The inner end of said bolt is reduced, as shown at 6, to form a stem which projects through a central guide-opening in a removable inner cap 7, fitted upon the casing, a spring 8 being coiled upon said reduced portion of the bolt between the shoulder at the outer end of the body portion of the bolt and the said inner cap. The body portion of the bolt is also provided with a cut-away portion forming a shoulder 9 for engagement by the projections 10 on the knob-spindle 11. The knob-spindle carries the terminal knobs 12 and is mounted in knob-spindle bearing-plates 13, adapted to be secured to the surfaces of the door or closure to which the locking device is attached.

Arranged upon the inner cap of the casing is a seat for a tumbler 14, said tumbler consisting of a revoluble disk provided with a keyhole 15, arranged in alinement with a keyhole 16 in an extension 17 of one of the knob-spindle bearing-plates. The seat for the tumbler consists, in the construction illustrated, of a loop 18, provided with inwardly-extending lugs or ears 19 to bear against the side surfaces of the tumbler, and parallel side strips 20 are connected to the sides of the loop contiguous to the plane of the cap, said tumbler being provided with a radial slot 21, adapted to be arranged either in or out of alinement with the guide-opening in the cap to either admit or exclude the bolt-stem or reduced portion. It is obvious that when the radial slot in the tumbler is in alinement with the guide-opening the bolt may be retracted against the tension of its actuating-spring by turning the knob-spindle, whereas when said slot is arranged out of alinement with the guide-opening the bolt-stem will strike the periphery thereof and be held from retraction. In order to prevent accidental displacement or turning of the tumbler, I employ friction-springs 22, carried by the loop forming the seat for the tumbler and bearing at their extremities against the side surfaces of the tumbler, said side surfaces being preferably provided with side grooves 23, in which the extremities of the springs lie when the slot of the tumbler is in alinement with the bolt-stem.

Various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of this invention.

Having described my invention, what I claim is—

1. The combination with a lock-casing, a spring-actuated bolt, and means for retracting the bolt against the tension of its actuating-spring, of a tumbler-seat arranged at the inner end of the lock-casing and having a loop and spaced lugs or ears, a tumbler consisting of a disk mounted in said seat and provided with a radial slot for alinement with a reduced stem at the inner end of the bolt, and friction-springs in contact with the surfaces of the tumbler to prevent accidental

displacement thereof, substantially as specified.

2. The combination with a tubular lock-casing, a spring-actuated bolt, and means for retracting the bolt against the tension of its actuating-spring, of a cap removably fitted upon the inner end of the casing and carrying a tumbler-seat having a loop and inwardly-projecting lugs or ears, a tumbler consisting of a disk mounted in said seat and provided with a radial slot for alinement with a reduced extension of the bolt, and friction-springs carried

by the loop for contact with the opposite side surfaces of the tumbler, said surfaces of the tumbler being provided with depressions for engagement by the extremities of the friction-springs, substantially as specified. 15

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

CHARLES ELSWORTH AMBS.

Witnesses:

FRANK. E. HILL,
F. D. LAMBERSON.