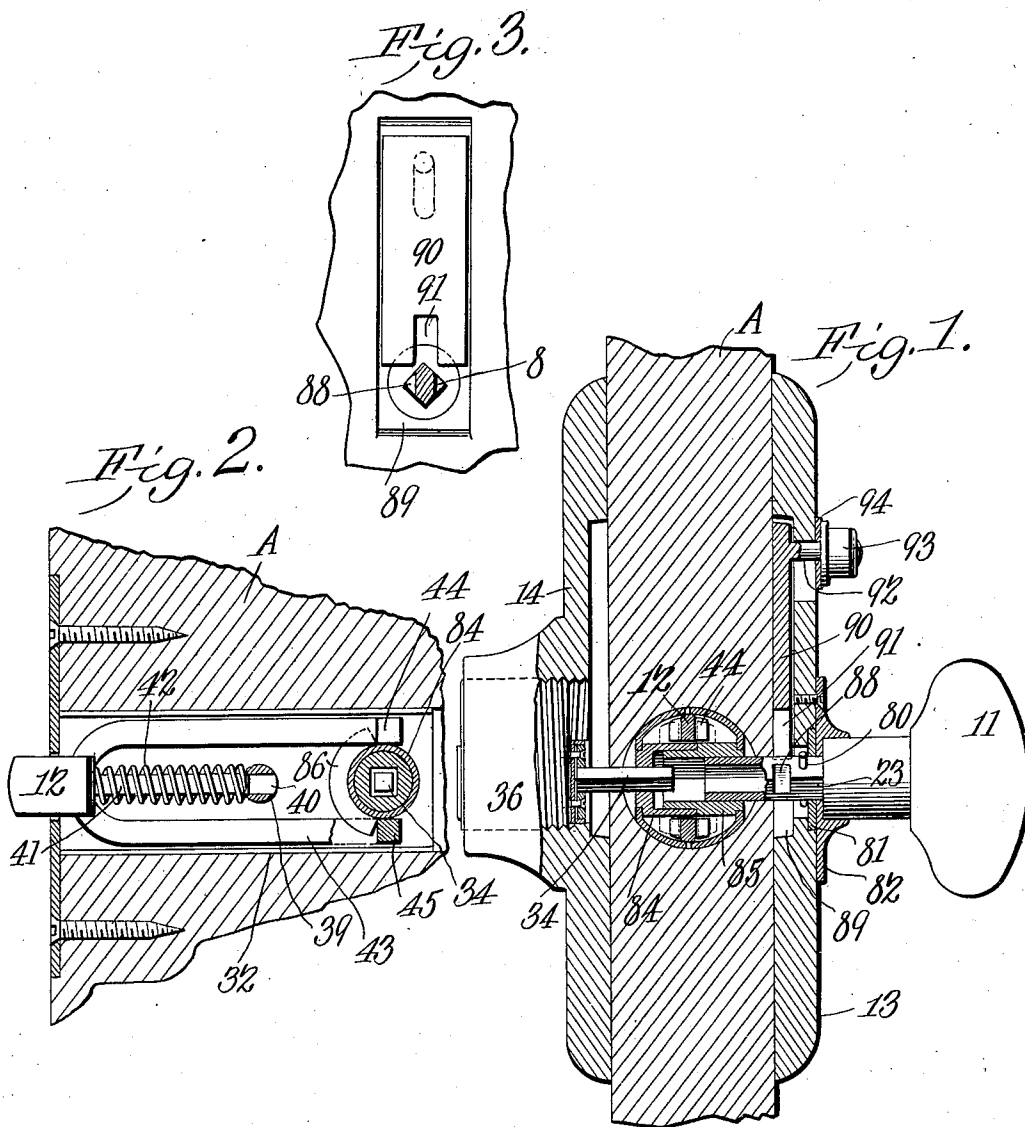


No. 861,421.

PATENTED JULY 30, 1907.

W. H. F. YOUNG.
COMBINED LOCK AND LATCH.
APPLICATION FILED JUNE 18, 1906.



WITNESSES:

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UNITED STATES PATENT OFFICE.

WILLIAM H. F. YOUNG, OF MUNCIE, INDIANA.

COMBINED LOCK AND LATCH.

No. 861,421.

Specification of Letters Patent.

Patented July 30, 1907.

Application filed June 18, 1906. Serial No. 322,247.

To all whom it may concern:

Be it known that I, WILLIAM H. F. YOUNG, a citizen of Delaware and State of Indiana, have invented a new and useful Combined Lock and Latch, of which the following is a specification.

This invention relates to locks and latches, for use on doors and similar structures, one object of the invention being to provide a novel form of lock which may be applied to doors of different thickness and in which the lock carries or includes a plurality of roll backs arranged to be engaged by a lock actuated spindle operable from the outer face of the door, and a knob actuated spindle operable from the inner face of the door.

A further object of the invention is to provide an improved lock of this type in which the lock member or casing is carried solely by the escutcheon plate.

With these and other objects in view, as will more fully hereinafter appear, the invention consists in certain novel features of construction and arrangement of parts, hereinafter fully described, illustrated in the accompanying drawings, and particularly pointed out in the appended claims, it being understood that various changes in the form, proportions, size and minor details of the structure may be made without departing from the spirit or sacrificing any of the advantages of the invention.

In the accompanying drawings:—Figure 1 is a transverse sectional view through a door provided with a lock and latch constructed in accordance with the invention. Fig. 2 is a transverse sectional view through the lock casing. Fig. 3 is a detail sectional view through the inner knob or spindle, showing the spindle locking slide in elevation.

Similar numerals of reference are employed to indicate corresponding parts throughout the several figures of the drawings.

The inner knob 11 is provided with a square spindle 23 that is held in place by means of a pin 80 that extends through said spindle and bears against a washer 81 seated within a recess formed in the inner face of an escutcheon plate 13. The spindle 23 is provided with a circular bore which may receive the square end of the spindle 34 of a lock 36, the lock casing being carried directly by an outer escutcheon plate 14. The lock actuated spindle is of such diameter as to fit in the bore of the spindle 23 and turn freely therein in case the two spindles are telescoped in a thin door, so that each spindle is free to rotate independently of the other.

The door is provided with a circular mortise in which is fitted a cylindrical latch casing 32, said casing having diametrically opposed bearing openings for the reduced end portions of a pair of hub or roll back members 84 and 85 which interfit telescopically and serve to mutually support each other, and the inner ends of the spindle members engage square openings formed in the ends of these hubs for the purpose of transmitting movement thereto.

The latch casing 32 is preferably formed of a pair of semi-cylindrical sections which may be united in the usual manner as by tenons on one fitting in mortises in the other, and one of these sections carries a boss 39 having an opening 40 for the reception of a pin 41 that is formed integral with or is secured to the latch bolt 12 and serves as a means for guiding the latter. This pin is surrounded by a spring 42 which bears at one end against a boss, and at the other end against the latch bolt and tends to force the latter outward.

The rear end of the latch bolt is bifurcated to form a pair of arms 43, as will be seen on reference to Fig. 2, and projecting from these arms are two sets of lugs 44 and 45, the lugs 44 projecting from one side of the bolt, and the lugs 45 from the opposite side of the bolt. Each of the roll backs is provided with suitable wings 86 for engaging the lugs of the latch bolt, the wing of one engaging the lugs 44, and the wing of the other engaging the lugs 45, so that either may be operated independently of the other.

The spindle 23 is provided with a pair of diametrically opposed peripheral notches 88. These are in alignment with a recess 89 formed in the inner face of the inner escutcheon plate 13, and in the recess 89 is mounted a slide 90 having at its lower end a slot 91 arranged to receive the reduced portion of the spindle formed by the cutting of the two notches 88. The upper end of the slide is provided with a projecting pin 92 which carries a thumb piece 93 at a point outside the escutcheon plate, a spring washer 94 being introduced between the knob and the plate in order to hold the locking slide in adjusted position. This locking slide may be moved to engage the spindle for the purpose of holding the finger knob from turning movement without in any manner interfering with the operation of the latch bolt from the key actuated spindle 34. The inner knob 11 is mounted on a small flanged collar piece 82 that is firmly secured to the inner escutcheon plate, and endwise play of the knob shank is prevented by the engagement of the pin 80 against the inner face of the washer 81.

I claim:—

In a device of the class described, a casing having a pair of diametrically opposed bearing openings, a pair of interfitting roll back hubs having reduced end portions mounted in said openings, a latch bolt having a plurality of projections for independent engagement by said roll backs, a lock spindle extending from the outer side of the door and having a non-circular portion engaging in a correspondingly shaped opening in one of the roll back hubs, and a knob spindle projecting from the inner side of the door and engaging the other roll back hub, said knob spin-

dle having a circular opening of greater diameter than the lock spindle to permit telescoping of the two spindles on thin doors.

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

WILLIAM H. F. YOUNG.

Witnesses:

JOSEPH DRAKE,
E. GEIGER.