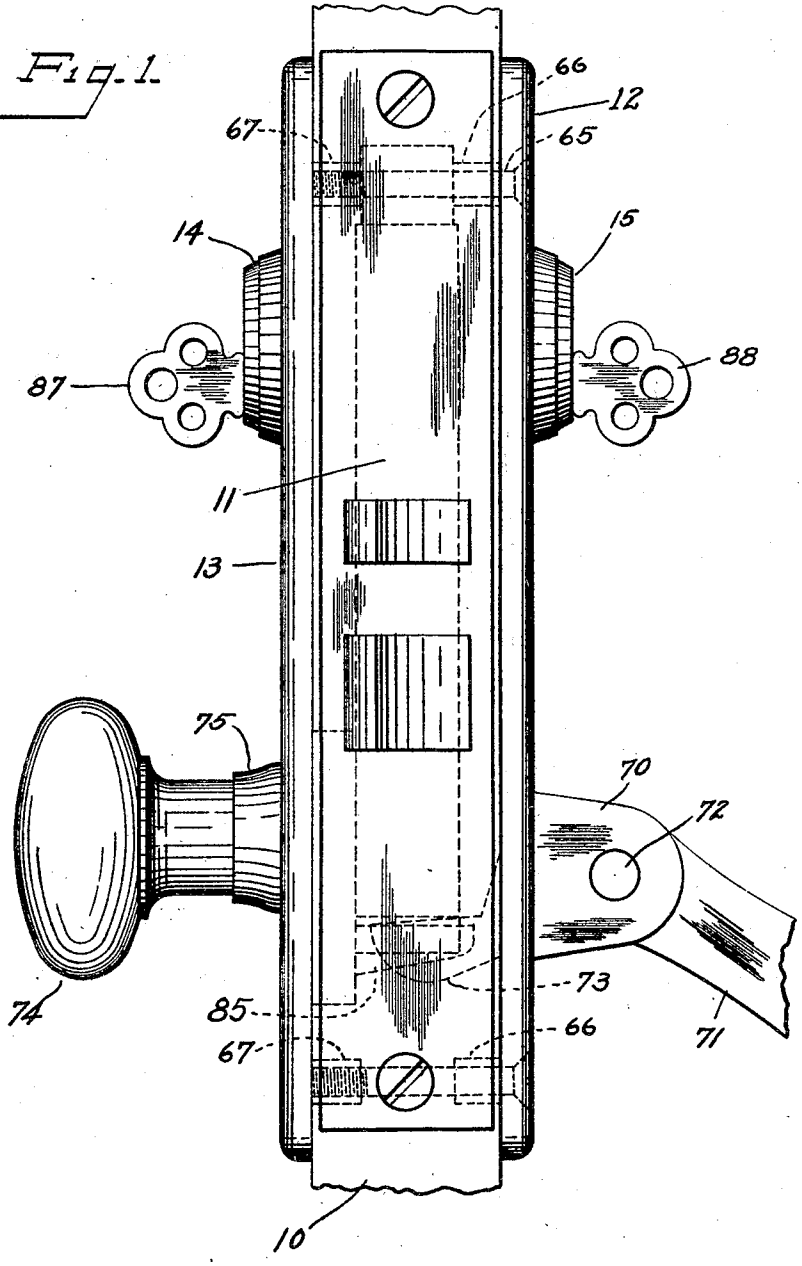
July 8, 1924. 1,500,168

H. G. VOIGHT

LOCK

Filed March 18, 1919 5 Sheets-Sheet 1

Fig. 1.



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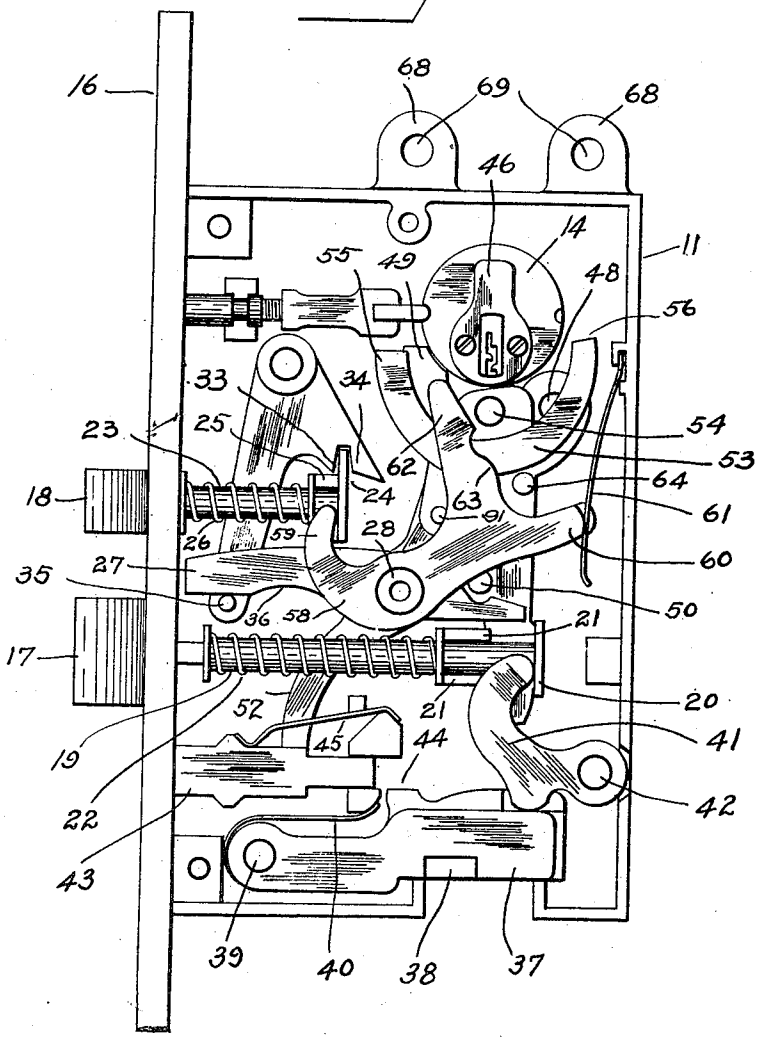
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Fig. 2.



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1,500,168

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Filed March 18, 1919 5 Sheets-Sheet 3

Fig. 5.

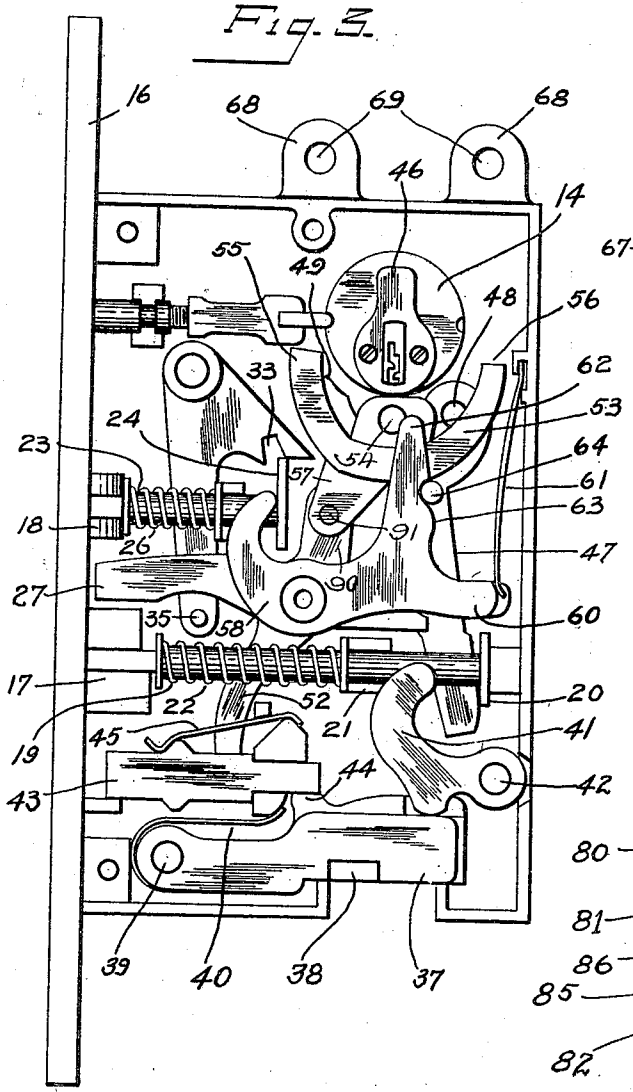
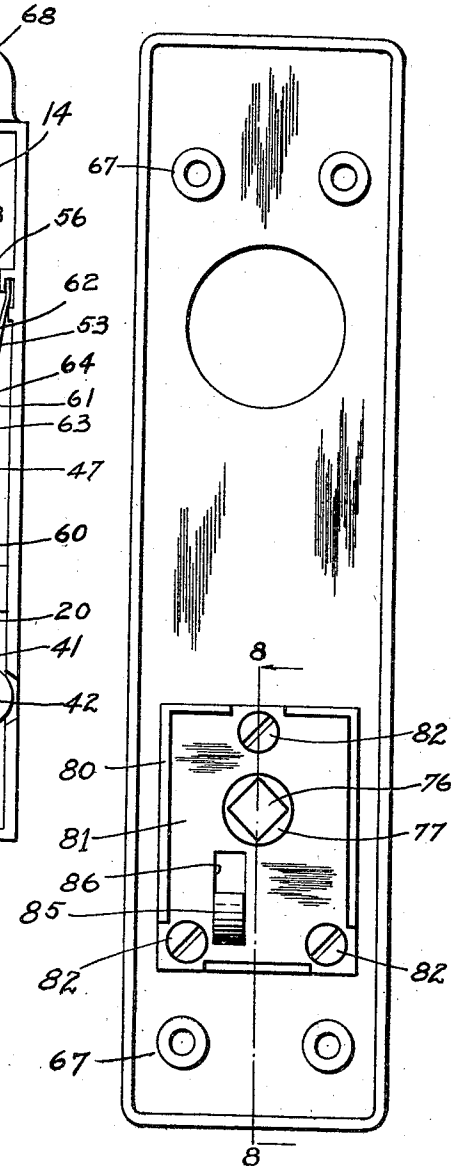


Fig. 6.



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Filed March 18, 1919 5 Sheets-Sheet 4

Fig. 4.

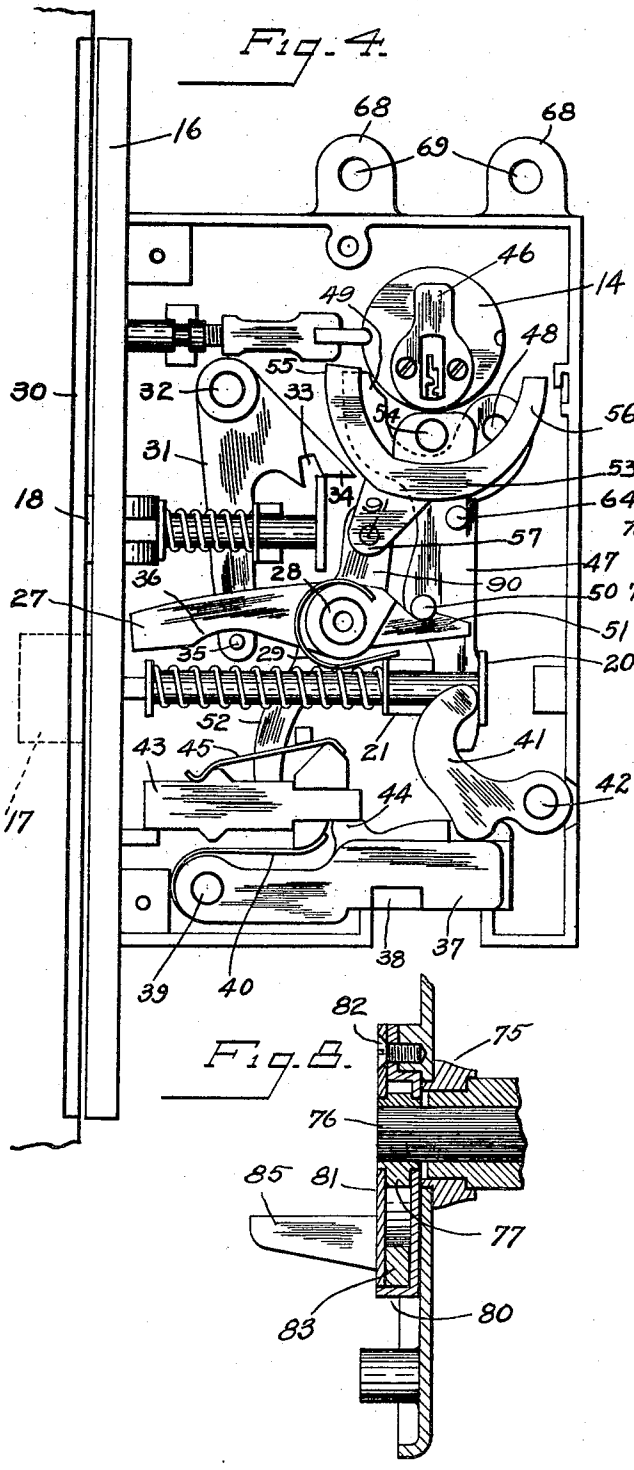


Fig. 7.

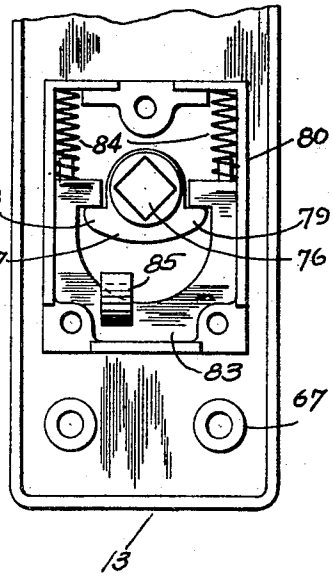


Fig. 8.

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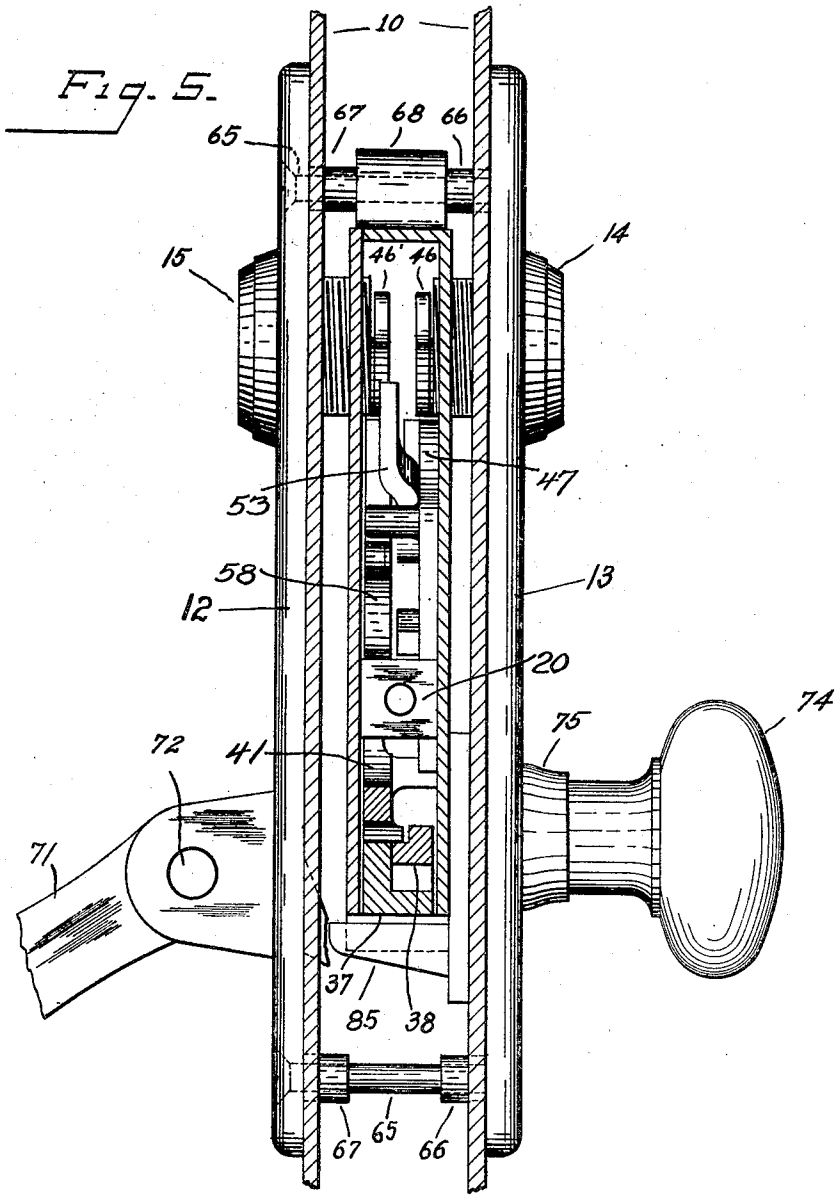
July 8, 1924. 1,500,168

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Filed March 18, 1919 5 Sheets-Sheet 5

Fig. 5.



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UNITED STATES PATENT OFFICE.

HENRY G. VOIGHT, OF NEW HAVEN, CONNECTICUT, ASSIGNOR TO SARGENT & COMPANY, OF NEW HAVEN, CONNECTICUT, A CORPORATION OF CONNECTICUT.

LOCK.

Application filed March 18, 1919. Serial No. 283,342.

To all whom it may concern:

Be it known that I, HENRY G. VOIGHT, a citizen of the United States, residing in New Haven, county of New Haven, and State of Connecticut, have invented certain new and useful Improvements in Locks, of which the following is a full, clear, and exact description.

This invention relates to locks, and more particularly to a mortise lock provided with novel means for operating the mechanism within the same.

A number of mortise locks now in use upon the doors of stores, school-houses, theatres, and other public buildings, are not operated by a door knob upon the outside of the same to retract the latch bolt, but are provided with a pivoted lever often termed "a thumb piece", to retract the latch bolt, this lever being positioned upon the door adjacent the lower edge of the mortise lock, and provided with a portion constructed to operate a lifter element mounted in the lower portion of the mortise lock and accessible to the lever through a notch formed in the mortise lock casing. Although it is usually more convenient to operate a door by means of a door knob than it is by "a store door handle" consisting of a hand grip and thumb piece, the door knob is omitted from this type of lock in order to avoid increasing the number of operating parts mounted within the lock casing, the interior of these locks usually being crowded, so that it is difficult, without increasing the dimensions of the lock casing, to find room therein for the ordinary knob spindle hub and spring-pressed yoke, which is the usual mechanism for retracting the latch bolt by means of a door knob.

The primary object of my invention is, therefore, to provide means for mounting a door knob and mechanism operated thereby upon one of the escutcheon plates of the mortise lock for retracting the latch bolt within the lock.

Another object of my invention is to provide means for securing the escutcheon plate upon which the knob and mechanism operated thereby is mounted to the mortise lock whereby the escutcheon plate is firmly secured in place relatively to the mortise lock and the operating mechanism carried by the escutcheon plate is properly positioned relatively to the lock casing.

Another object of my invention is to improve the arrangement and operation of the mechanism within the mortise lock.

To these and other ends, the invention consists in the novel features and combinations of parts to be hereinafter described and claimed.

In the accompanying drawings:

Fig. 1 is a fragmentary edge view of a door having my invention applied thereto, the door knob being shown upon the outside of the door.

Fig. 2 is a side view of my mortise lock removed from its door and having its cap plate removed, the latch bolt and dog-controlling plunger being shown protracted, and the dogging slide shown retracted.

Fig. 3 is a view similar to Fig. 2, showing the latch bolt and dog-controlling plunger retracted, and the dogging slide protracted.

Fig. 4 is a view similar to Figs. 2 and 3, the latch bolt being shown in operative engagement with its strike plate, the dog-controlling plunger shown retracted, and the dogging slide shown protracted.

Fig. 5 is a vertical fragmentary sectional view of a sheet metal door having my invention applied thereto, the section being taken to cut away the rear wall of the mortise lock.

Fig. 6 is a rear elevation of the outside escutcheon plate removed from the door.

Fig. 7 is a fragmentary view of the escutcheon plate shown in Fig. 6, the face plate of the casing in which the knob operated mechanism is housed being removed; and

Fig. 8 is a sectional view taken on the line 8—8 of Fig. 6 looking in the direction of the arrows.

In the embodiment of my invention, illustrated in the drawings, I have shown a fragmentary view of a sheet metal door designated by the numeral 10, the same having a mortise lock 11 mounted in the edge thereof, and having an inside escutcheon plate 12 mounted upon the inner face of the door and an outside escutcheon plate 13 upon the outer face of the door, a pin tumbler lock 14 being mounted upon the outside of the door and a second pin tumbler lock 15 mounted upon the inside of the door.

The construction and operation of the mechanism within the mortise lock 11 will

now be described. This lock is provided with the usual face plate 16, which is seated in a correspondingly shaped slot formed in the edge of the door 10, this face plate being provided with a latch bolt 17, and a dog controlling plunger 18, which are pivotally mounted upon the face plate in a well-known manner, the latch bolt being operated by means of a sliding bolt stem 19 upon the rear end of which is formed a crosshead 20, this stem being positioned to slide between a pair of spaced lugs 21 against which one end of the latch operating spring 22 reacts. The dog-controlling plunger 18 is controlled by a stem 23 having a crosshead 24 upon its rear end, the stem being positioned to slide between spaced lugs 25 against which one end of the protracting spring 26 reacts. When the latch bolt 17 is protracted, it is normally dogged in this position by the latch dogging lever 27, this lever being pivotally mounted upon the fixed stud 28, which projects inwardly from one face of the casing. This dogging lever is normally held in its dogging position by the spring 29 one end of which reacts against one of the lugs 21. The operation of the type of latch bolt and dog-controlling plunger, just described, is such that when the dog-controlling plunger is protracted, the latch dogging lever is held in its inoperative position, as shown in Fig. 2, and when the dog controlling plunger is held in its retracted position by the strike plate 30 (Fig. 4), the lever 27 is permitted to swing to its dogging position. In the lock herein disclosed, I have provided a lever 31, which is pivotally mounted upon a stud 32, for holding the dogging lever 27 in its inoperative position when the plunger 18 is protracted. This lever 31 has a rearwardly projecting portion in which a notch 33 is cut, the notch being positioned to clear the crosshead 24 when the plunger 18 is protracted, and when this plunger is retracted, the crosshead swings the lever 31 rearwardly, as shown in Fig. 4, and retains the same in this position due to the engagement between the upper edge of the crosshead 24 and the face 34 upon the rear portion of the lever 31. As long as the lever 31 is retained in this rearward position, shown in Fig. 4, the pin 35 upon the free end of this lever clears the latch dogging lever 27, due to a clearance notch 36 cut in an edge of this lever, but when the dog-controlling plunger is protracted by its spring 26, the cooperation between the crosshead 24 and notch 33 swings the lever 31 forwardly, and thereby engages the pin 35 with the lower edge of the lever 27 to retract the same, as shown in Fig. 2.

I have provided my mortise lock adjacent the lower edge of the same with a pair of lifters 37 and 38, each lifter being pivotally mounted within the lock casing upon a stud 39. These lifters operate in a well-known manner, and are forced in a downward direction by a spring 40, the lifter 37 being designed to be operated by a pivoted lever mounted upon the inner face of the door and the lifter 38 being operated by an element mounted upon the outside of the door. The lifters 37 and 38 are provided to retract the latch bolt 17 by means of a lever 41 pivotally mounted upon the stud 42 and having an end which abuts against the inner face of the crosshead 20. When its is desired to prevent the latch bolt from being retracted from the outside of the door, this may be accomplished by operating the dogging slide 43, the inner end of which may be moved in front of the projection 44 formed upon the lifter 38 to block the operation of this lifter, a spring 45 being provided to retain the dogging slide 43 in either its operative or inoperative position. Since it is never desirable to prevent the latch bolt 17 from being retracted by the operating lever upon the inside of the door, the lifter 37 operates independently of the lifter 38 and cannot be dogged against movement.

In order that the door with which my lock is provided may be opened from the outside of the same when the dogging slide 43 is moved to its operative position, I provide the cylinder lock 14, above mentioned, with a rollback 46, which is adapted to operate the latch retracting lever 47, this lever being pivotally mounted upon a stud 48, and has a portion 49 positioned to be engaged by the rollback. A portion of the lever 47 projects downwardly and lies in front of the crosshead 20, so that when this lever is swung in a rearward direction, it retracts the latch bolt 17, the latch dogging lever 27 being swung to clear the latch bolt by the cooperation between the pin 50 carried by the lever 47, and the projection 51 formed upon the rear end of the lever 27.

It is desirable to provide key controlled means for operating the dogging slide 43, in order that an authorized person may operate this slide to either protract or retract the same. The means which I have provided for this purpose consists of a slide controlling lever 52 pivotally mounted upon the stud 28, above mentioned, the lower end of which lever operatively engages the slide 43, and the upper end 90 of which is loosely pivoted at 91 to a rocking lever 53, pivotally mounted upon a stud 54. The rocking lever 53 has a peculiar construction, as will be apparent from the drawings, and operates in an unusual manner. This lever is provided with spaced arms 55 and 56, which are adapted to be engaged by the rollback 46′ (Fig. 5) carried upon the inner end of the cylinder lock 15. The operation between the rollback 46′ and the rocking lever being such that when the rollback is turned in one direction,

it engages the arm 55 and rocks the lever 53 about its pivotal mounting 54, thereby operating the slide controlling lever 52, due to the pivotal connection between the upper end of the lever 52 and the projection 57 upon the rocking lever, thus moving the dogging slide 43 to its inoperative position, as shown in Fig. 2. When the rollback 46′ is rotated in the opposite direction, it will engage the arm 56, and rock the lever 53 in the opposite direction, and operate the lever 52 to move the dogging slide 43 to its operative position, as shown in Fig. 4. It should be noted that whenever one of the arms 55, 56, is engaged by the rollback and forced outwardly until it clears the same, the other arm will be simultaneously swung towards the rollback so that when the rollback is rotated in the opposite direction, it will operate the last mentioned arm.

If the lock herein described is mounted upon the door of a school-house, store or other public building, it may be desirable during the busy part of the day to dog both the latch bolt 17 and the dog controlling plunger 18 in their retracted position. I have, therefore, provided key-controlled means for performing this function, consisting of a detent lever 58, which is pivotally mounted on the stud 28. One end of this lever is provided with a bent finger 59, which is adapted to abut against the inner face of the crosshead 24 in order to retract the dog-controlling plunger 18. The lever 58 is provided with a second finger 60 with which a flat flexible spring 61 cooperates to hold the lever in either its operative position, as shown in Fig. 3, or in its inoperative position, as shown in Fig. 2. The lever 58 is further provided with a finger 62, which is constructed to lie between the spaced arms 55 and 56, to be operatively engaged by the rollback 46′, the rollback being free to engage either one face or the other of the finger 62 after it has swung the rocking lever 53 so that either one arm or the other will clear the rollback and let the same move into operative engagement with this finger. Upon an inspection of Fig. 2, it will be seen that the arm 55 lies in a position to clear the rollback 46′ operated from the inside of the door and thereby permit the same to move into engagement with the end of the finger 62 to rock this lever about its pivot 28 to the latch retracting position, shown in Fig. 3, in which figure it will be seen that the curved finger 59, due to its engagement with the crosshead 24, has retracted the dog controlling plunger 18, and that at the same time the latch bolt 17 has been retracted by means of the latch retracting lever 47, which is forced rearwardly by the cooperation between the rounded shoulder 63 formed upon the detent lever 58 and the stud 64 carried by the latch retracting lever against which the shoulder is adapted to abut. The cooperation between the shoulder 63 and the stud 64 is such that when the detent lever is swung to the position shown in Fig. 3, the shoulder 63 by means of the stud 64 swings the latch retracting lever in a rearward direction to retract the latch bolt and to hold the parts in this retracted position, due to the fact that the stud 64 moves into a recess positioned to the far side of this shoulder, as will be apparent from Fig. 3, the parts being further retained in this position by the spring 61, above mentioned, the outer curved end of which rests against the outer end of the finger 60.

The escutcheon plates 12 and 13, above mentioned, will now be described. These plates are preferably secured in place upon the inner and outer face of the door by means of securing screws 65, preferably extending through bosses 66, formed upon the inner face of one escutcheon plate and screwed into the threaded sockets 67 projecting inwardly from the inner face of the other escutcheon plate. In order to properly align the escutcheon plates with the mortise lock and to retain the same in place relatively to the lock, lugs 68 are formed upon the upper edge of the lock casing having drill-holes 69 extending therethrough, adapted to receive the bolts 65. The inner face of the bosses 66 and 67 are adapted to abut against the opposite faces of the lugs 68, and thereby retain the mortise lock within the hollow door properly spaced between the walls of the same. The means just described for securing the escutcheon plates and lock in place upon the door is more fully described and claimed in my copending application, Serial No. 243,126, filed July 3, 1918. Upon the inner escutcheon plate, near the lower end of the same, is preferably formed a pair of spaced lugs 70 between which is pivotally mounted an operating lever 71, the same being pivotally secured between these spaced lugs by a pin 72, and the inner end of the operating lever 71 is provided with a finger 73, which is positioned to operatively engage the lifter 37, above mentioned. The construction and operation of the pivoted lever 71 is more fully described in my copending application, above mentioned.

The construction and operation of the knob operating mechanism mounted upon the outside escutcheon plate 13 will now be described. As above pointed out, in most instances it is more convenient to operate a door provided with a door knob than it is to operate a door provided with a pivoted latch or some other means for retracting the latch bolt, but heretofore it has been customary to provide mortise locks of the type to which this invention relates with a pivoted latch for retracting the latch bolt instead of a knob, because no satisfactory

means were known for operatively connecting a door-knob to the mechanism within the mortise lock without materially increasing the mechanism within the lock casing. I have, therefore, provided the outside escutcheon plate 13 with an ordinary type of door knob 74, rotatably mounted upon the same, the escutcheon plate having rigidly secured to its outer face the usual type of thimble 75 in which the inner end of the door-knob rotates. This knob is provided with the usual type of knob shaft 76 upon the inner end of which is rigidly secured a knob spindle hub 77 having oppositely directed ears 78, 79. Upon the inner face of the escutcheon plate is rigidly secured a relatively thin casing 80, having a cover plate 81 secured in place by screws 82, inside of which casing is mounted the knob spindle hub, just mentioned, and also, a sliding yoke 83, which yoke is normally held in the position shown in Fig. 7 by coiled springs 84. The sliding yoke 83 is provided with an inwardly extending finger 85, which projects through a slot 86 in the cover plate 81, into position to engage the lifter 38, above mentioned, in order to operate the same, the arrangement of the knob operating mechanism, just described, being such that when the knob 74 is rotated in either one direction or the other, the sliding yoke will be operated to move its finger 85 into operative engagement with the lifter 38.

Operation.

The operation of my device is as follows: Assuming that the door 10 is closed and latched, and that the dogging slide 43 is moved to its operative position, the door cannot be opened from the outside of the same, except by means of a key 87 inserted in its lock 14 to rotate the rollback 46 and thereby operate the latch retracting lever 47 to retract the latch bolt 17. If the dogging slide has been moved to its inoperative position, the door may then be opened from the outside of the same by turning the knob 74 in either direction to operate the lifter 38, and thereby retract the latch bolt. If it is desired to open the door from the inside of the same, this may be at all times accomplished by operating the pivoted lever 71, mounted upon the inner escutcheon plate, this lever preferably being provided with a panic bar of a well-known type. If it is desired during the busy part of the day to avoid the necessity of retracting the latch bolt 17 in order to open the door, both the latch bolt 17 and dog-controlling plunger 18 may be dogged in their retracted position by means of the key 88 operated in the inner cylinder lock 15 to cause the rollback 46′ carried by this lock to swing the detent lever from the position shown in Fig. 2 to the position shown in Fig. 3, and when the rush of the day is over and it is desired to release the latch bolt so that the same may be protracted, this may be done by rotating the rollback upon the inner end of the lock 15 in the opposite direction to engage the finger 62 of the detent lever and move the same to its inoperative position. When the day's work is over and it is desired to lock the door for the night so that the latch bolt cannot be retracted by means of the door-knob 74, this may be done by inserting the key 88 in its lock upon the inside of the door and rotating the same to shift the dogging slide 43 from the inoperative position to the operative position, shown in Figs. 3 and 4. It should be noted that the dogging slide 43 may be moved to either its operative or inoperative position when the detent lever 58 is in either its retracted or protracted position, since the rollback which operatively engages the arms 55 and 56 of the rocking lever does not need to be turned far enough to engage the finger 62, when it is merely desired to retract or protract the slide 43, but if it is desired to also operate the detent lever, this may be done by turning the rollback through a sufficient arc to bring the same into operative engagement with this detent lever. The position of the detent lever 58 does not interfere with the desired operation of the dogging slide, since after the detent lever has been moved to the desired position, the rocking lever may then be moved by its rollback to either one position or the other, without disturbing the detent lever 58.

Although the foregoing description has of necessity been directed to details of my invention, it will be apparent that various changes may be made in the device herein described without departing from the spirit or scope of my invention, as defined in the annexed claims.

From the foregoing description, it will be seen that the knob operating means herein described is well adapted to operate the type of mortise locks which have heretofore been operated by the thumb piece of the so-called store door handle; that is my new knob operating mechanism is well adapted to be applied to doors now using a thumb piece to retract the latch bolt mounted within mortise locks.

What I claim is:

1. In combination with a mortise lock having a latch bolt, an escutcheon plate separate from said lock, a latch operating slide operatively mounted upon said escutcheon plate and constructed and arranged to retract said latch bolt, and manually rotatable means for operating said slide.

2. In combination with a mortise lock having a latch bolt, an escutcheon plate separate from said lock, a latch operating

slide operatively mounted upon said escutcheon plate and constructed and arranged to retract said latch bolt, manually rotatable means for operating said slide, and securing bolts passing through said escutcheon plate and lock to properly position said slide relatively to said lock.

3. In combination with a mortise lock provided with a latch bolt, an escutcheon plate separate from said lock, a door knob carried by and rotatably mounted upon said escutcheon plate, and a latch operating slide operatively mounted upon said escutcheon plate and constructed and arranged to retract said latch bolt, said slide operable by said door knob.

4. In combination with a door, a mortise lock mounted therein, an escutcheon plate mounted upon one face of said door, a latch operating slide mounted upon said escutcheon plate, a knob rotatable spindle carried by said escutcheon plate, and connected to said slide to operate the same, and securing screws passing through said escutcheon plate and lock to secure said plate and lock upon said door with said slide properly positioned relatively to said lock.

5. An escutcheon plate for a mortise lock, a bolt operating slide slidably mounted upon the inner face of said plate, and a door knob rotatably mounted upon said plate and operatively connected to said slide.

6. An escutcheon plate for a mortise lock, means carried thereby for retracting a bolt within the mortise lock, said means comprising a spring-pressed yoke slidably mounted upon the inner face of said escutcheon plate, a knob spindle hub for operating said yoke, and a door knob carried by said escutcheon plate and operatively connected to said knob spindle hub.

7. In combination with an escutcheon plate, a knob rotatably mounted thereupon, and a slide mounted upon the inner face of said plate and operatively connected to said knob.

8. In combination with a mortise lock provided with a casing, a latch bolt therein, an escutcheon plate separate from said casing, a slide operatively mounted upon said escutcheon plate, means rigidly secured to said slide and projecting therefrom into said casing to operate said latch bolt, and manually operable means for operating said slide.

9. In combination with a door, a mortise lock casing mounted therein, a latch bolt within said casing, a slide carried by said door exteriorly of said casing, means for imparting movement to said slide including a rotatable knob, and means extending from said slide into said casing to operate said latch bolt.

10. In combination with a door, a mortise lock casing mounted therein, a latch bolt within said casing, a lifter within said casing for retracting said latch bolt, a slide carried by said door exteriorly of said casing, a rotatable knob for operating said slide, and means for imparting the movement of said slide to said lifter.

11. In combination with a door, a mortise lock casing mounted therein, a latch bolt within said casing, a slide carried by said door exteriorly of said casing, a knob rotatable spindle lying in its entirety to one side of said casing and operatively connected to said slide, and means for retracting said latch bolt by the movement of said slide.

12. In combination with a mortise lock provided with a casing and a bolt retracting lifter mounted therein and exposed through a wall of said casing, an escutcheon plate, a knob rotatably mounted thereupon, and means operatively engaging the exposed part of said lifter, said means operable by the rotation of said knob.

13. In combination with a mortise lock provided with a casing and a bolt retracting lifter mounted therein and exposed through a wall thereof, an escutcheon plate, a knob rotatably mounted thereupon, and means upon said plate operated by said knob and constructed to operatively engage the exposed portion of said lifter.

14. In combination with a mortise lock provided with a casing and a bolt retracting lifter mounted therein and exposed through a wall thereof, an escutcheon plate, a knob rotatably mounted thereupon, and means upon said plate operated by said knob and constructed to operatively engage the exposed portion of said lifter, and securing means for bolting said escutcheon plate to said casing to properly position said knob operated means relatively to said lifter.

15. In combination with a mortise lock provided with a casing and a bolt retracting lifter mounted therein and exposed through a wall thereof, an escutcheon plate, a knob rotatably mounted thereupon, a slide mounted upon the inner face of said plate and operatively connected to said knob, and a finger upon said slide positioned to operatively engage the exposed portion of said lifter.

16. In a mortise lock, a latch bolt, a dog-controlling plunger provided with a crosshead, a latch dogging lever positioned to move into and out of latch dogging position, and a swinging lever for retaining said latch dogging lever in its inoperative position, said swinging lever having a portion constructed to straddle said crosshead and to be operated thereby.

17. In a lock, a case, a normally projected latch bolt therein, a cylinder lock having a rollback positioned within said case, means operable by said rollback to either dog said

latch bolt in its retracted position or to release the same, a dogging bolt within said case, a second means operable by said rollback to move said dogging bolt to either its operative or inoperative position, both said first and second mentioned means being constructed and arranged to position the bolt operated thereby in either its operative or inoperative position while the bolt operated by the other means is in either of its positions.

18. In a lock, a case, a normally projected latch bolt therein, said case having a key passage, means operable by a key inserted through said key passage to either dog said latch bolt in its retracted position or to release the same, a dogging bolt within said case, a second means operable by the same key inserted in said key passage to move said dogging bolt to either its operative or inoperative position, both said first and second means being constructed and arranged to position the bolt operated thereby in either its operative or inoperative position.

19. In a lock, a case, a normally projected latch bolt therein, said case having a key passage, means operable by a key inserted through said key passage to either dog said latch bolt in its retracted position or to release the same, a dogging bolt within said case, a second means operable by the same key inserted in said key passage to move said dogging bolt to either its operative or inoperative position, both said first and second means being constructed and arranged to position the bolt operated thereby in either its operative or inoperative position, each of said means being movable independently of the other.

20. In a lock, a case, a normally projected latch bolt therein, said case having a key passage, means operable by a key inserted through said key passage to either dog said latch bolt in its retracted position or to release the same, a dogging bolt within said case, a second means independent of said first means operable by the same key inserted in said key passage to move said dogging bolt to either its operative or inoperative position, both said first and second means being constructed and arranged to position the bolt operated thereby in either its operative or inoperative position.

21. In a lock, a case, a normally projected latch bolt therein, a key operated rollback within said case, pivoted means operable by said rollback to either dog said latch bolt in its retracted position or release the same, a dogging bolt within said case, and a second pivoted means operable by said rollback independent of said first means to move said dogging bolt to either its operative or inoperative position, said first and second means being constructed and arranged to position the bolt operated thereby in either its operative or inoperative position, said rollback remaining in the same plane of rotation throughout its operations.

22. In a lock, a case, a latch bolt therein, a key-controlled rollback positioned within said case, means operable by said rollback to either dog said latch bolt in its retracted position or to release the same, a dogging bolt within said case, a second means operable by said rollback to move said dogging bolt to either its operative or inoperative position both said first and second means operable by said rollback to position either bolt in its operative or inoperative position while permitting the other bolt to be moved by said rollback to its operative or inoperative position.

23. In a lock, a case, a key-controlled rollback operable in a single plane within said case, a pivoted lever movable by said rollback to either of two positions, a second pivoted lever movable by said rollback to either of two positions, both said first and second lever constructed and arranged to be moved by said rollback to either of its positions while permitting the other lever to be moved by said rollback to either of its positions.

24. In a lock, a case, a swinging rollback within said case, a pivoted lever provided with a pair of spaced arms positioned to be engaged by said rollback and swung thereby clear of the same, and a second lever independent of said first lever having a portion interposed between said arms and positioned to be operatively engaged by said rollback.

25. In a lock, a case, a swinging rollback within said case, a pivoted lever provided with a pair of spaced arms positioned to be engaged by said rollback and swung thereby clear of the same, and a second lever independent of said first lever having a portion interposed between said arms and positioned to be operatively engaged by said rollback, said arms and said interposed portion of the second lever lying in the same plane.

26. In a lock having a case, a rocking lever pivotally mounted therein, a rollback within said case for operating said lever, said lever provided with a pair of spaced arms positioned to substantially straddle said rollback, said arms constructed to be rocked by said rollback away from the same sufficiently to clear said rollback.

27. In a lock having a case, a rocking lever pivotally mounted therein, a rollback for operating said lever, said lever provided with a pair of spaced arms positioned to be operatively engaged by said rollback and rocked thereby clear of the same, each arm constructed to swing towards said rollback as the other arm is forced away from the same, and a second lever having a portion interposed between said arm and positioned to be operated by said rollback.

28. In a lock having a case, a rocking lever pivotally mounted therein, said lever provided with a pair of spaced arms, a second lever pivotally mounted within said case and having a portion interposed between said arm, and a rollback for operating said levers, said first mentioned lever operable in either direction by said rollback without operating said second lever.

29. In a lock having a case, a rocking lever pivotally mounted therein, said lever provided with a pair of spaced arms, a second lever pivotally mounted within said case and having a portion interposed between said arm, and a rollback for operating said levers, said rollback movable in a single plane and positioned to be swung into operative engagement with either of said arms and upon further movement to operatively engage said interposed portion.

30. A door lock comprising a case, a latch bolt reciprocably mounted therein, manually operable means for retracting the bolt, a dogging slide for preventing the operation of said means, key operated means for moving said dogging slide, a dog for said latch bolt, a dog controlling plunger, and key operated means for moving said plunger, both said key operated means being actuated by the same key, but independently of each other.

31. A door lock having a case, a latch bolt reciprocably mounted therein, manually operable means for withdrawing the latch bolt, a dogging slide for preventing the operation of said means, means for moving said dogging slide, including a key operated member, a dog for said latch bolt, a dog controlling plunger, and means for moving said plunger, including said key operated member, said member being adapted to move said slide and plunger independently of each other.

32. A lock comprising a case, a latch bolt reciprocably mounted therein, means for retracting said bolt, a dogging slide for preventing the operation of said retracting means, means for moving said dogging slide, including a key operated member, a dog for said latch bolt, a dog controlling plunger, and a member operable to retract both said plunger and said latch bolt, said member being actuated in turn by said key operated member.

33. A lock comprising a case, a latch bolt reciprocably mounted therein, means for retracting said bolt, a dogging slide for preventing the operation of said retracting means, means for moving said dogging slide, including a key operated member, a dog for said latch bolt, a dog controlling plunger, and a member operable to retract both said plunger and said latch bolt, said member being actuated in turn by said key operated member independently of the actuation of said dogging slide thereby.

In witness whereof, I have hereunto set my hand on this 14th day of March, 1919.

HENRY G. VOIGHT.