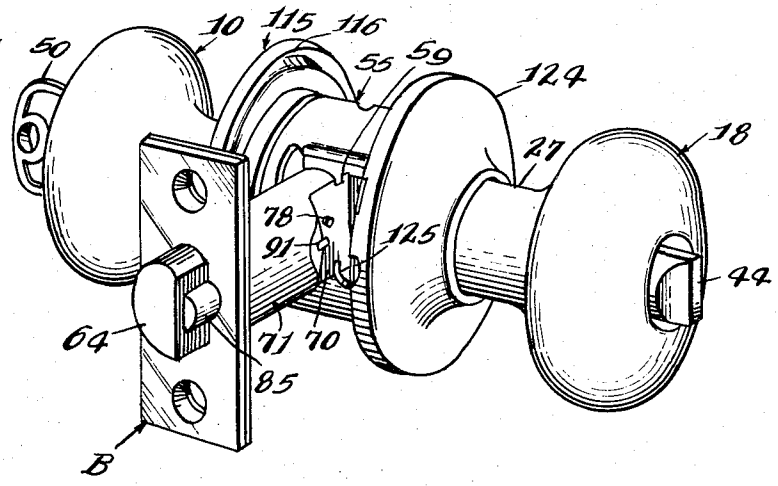
Jan. 27, 1959 E. W. NORTH ET AL 2,871,047

KEY LOCK CONSTRUCTION

Original Filed Aug. 9, 1952 3 Sheets-Sheet 1

Fig. 1.



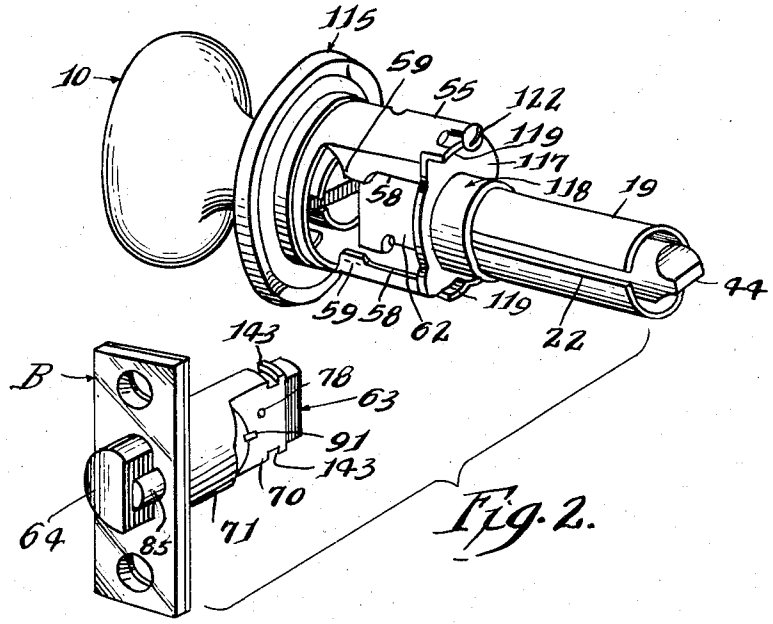
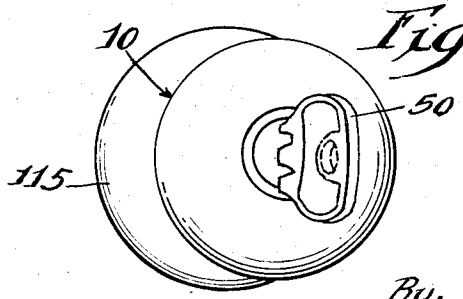


Fig. 2.

Fig. 3.



Inventors.
Edwin W. North.
William B. Wilson.
By. Wilson & Seffern Attys.

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KEY LOCK CONSTRUCTION

Original Filed Aug. 9, 1952 3 Sheets-Sheet 2

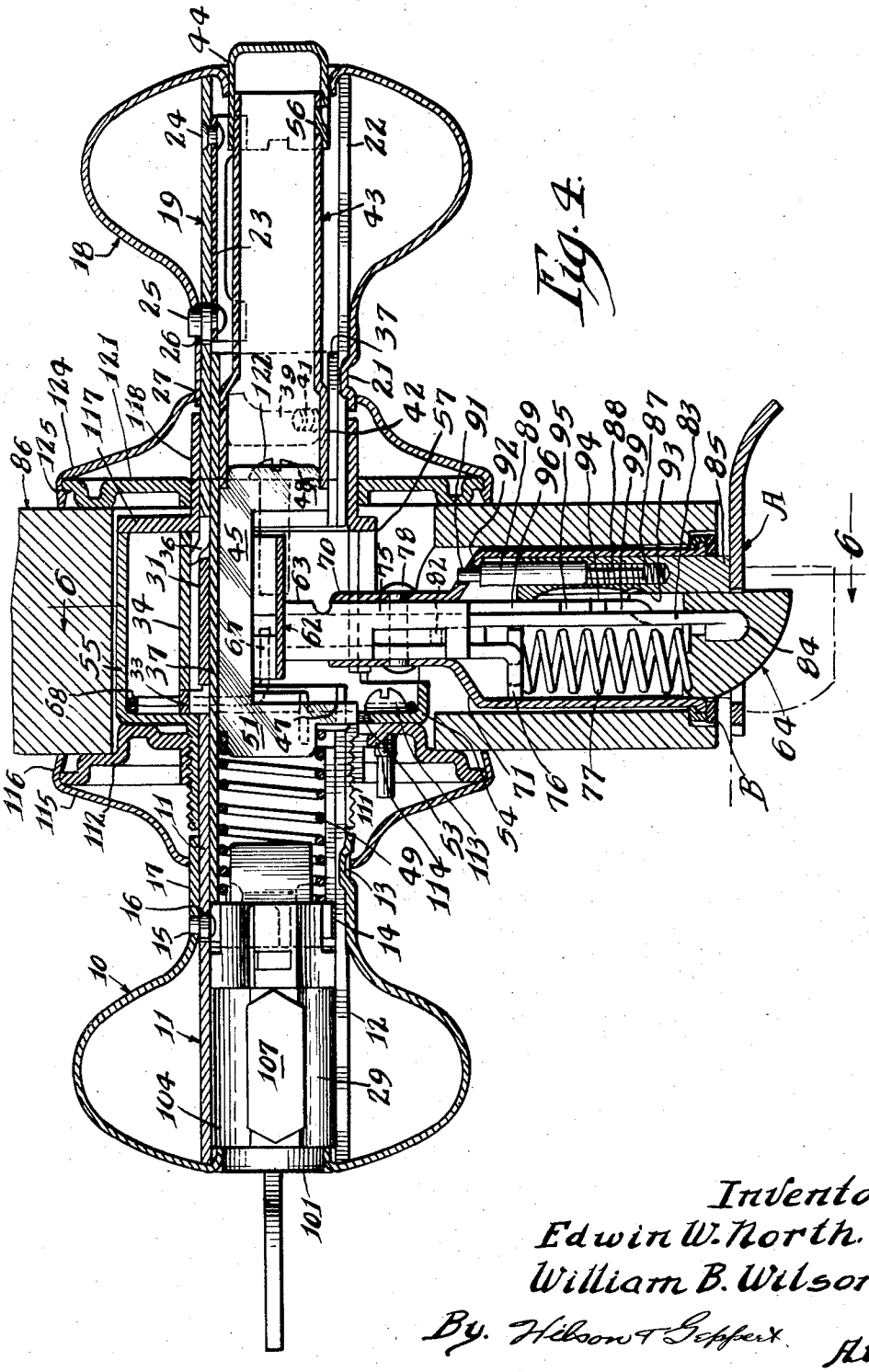


Fig. 4.

Inventors.
Edwin W. North.
William B. Wilson.
By. Hibbert & Goffert
Attys.

Jan. 27, 1959 E. W. NORTH ET AL 2,871,047

KEY LOCK CONSTRUCTION

Original Filed Aug. 9, 1952 3 Sheets-Sheet 3

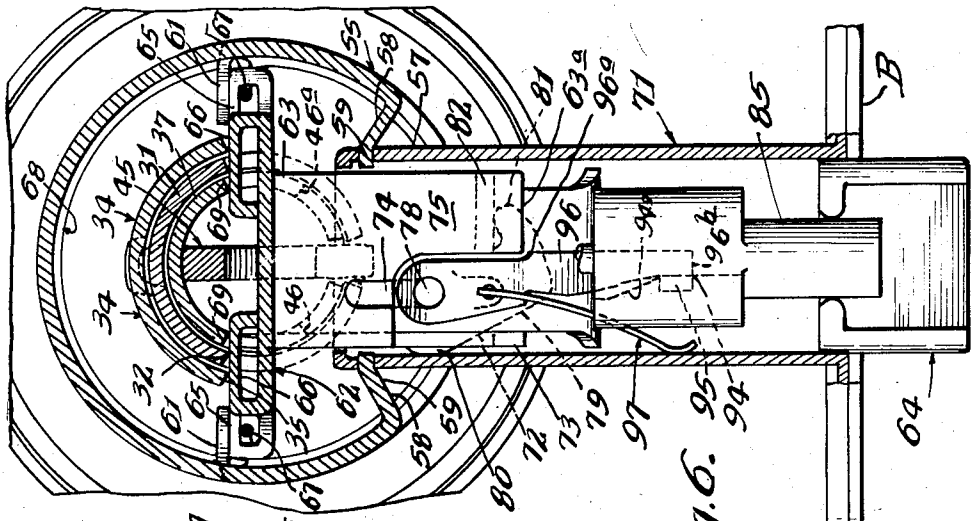


Fig. 6.

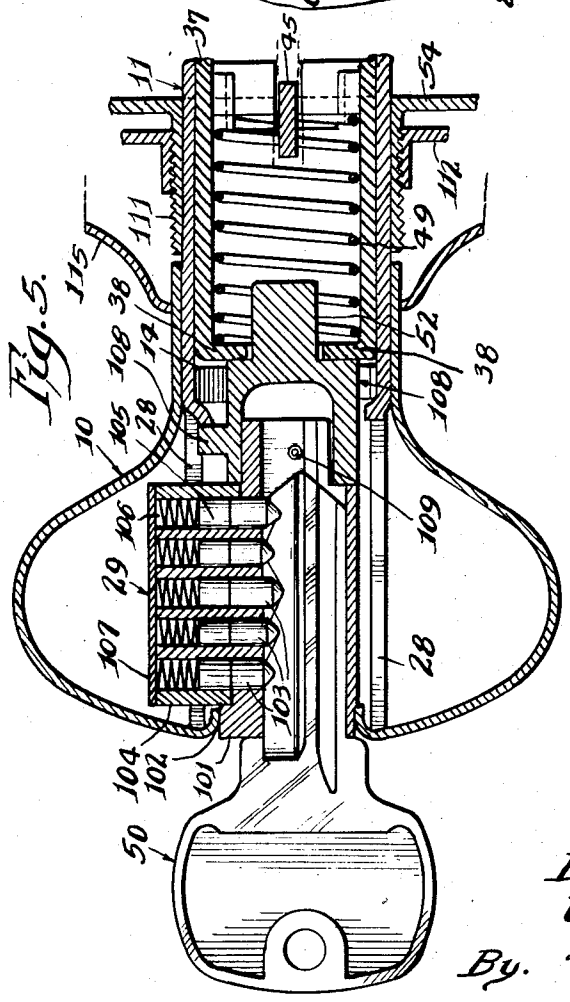


Fig. 5.

Inventors.
Edwin W. North.
William B. Wilson.
By. Wilson & Geppert
Attys.

United States Patent Office

2,871,047

Patented Jan. 27, 1959

2,871,047

KEY LOCK CONSTRUCTION

Edwin W. North, Rockford, Ill., and William B. Wilson, La Habra, Calif., assignors to National Lock Company, Rockford, Ill., a corporation of Delaware

Original application August 9, 1952, Serial No. 303,534, now Patent No. 2,814,194, dated November 26, 1957. Divided and this application January 28, 1957, Serial No. 638,195

6 Claims. (Cl. 292—169)

The present invention relates to door locks and more particularly to a novel latch bolt assembly therefor including dead latching mechanism whereby unlawful entry by retraction of the latch bolt from its locked position by means of pressure applied to its extended latching end is prevented.

Among the objects of the present invention is the provision of a novel dead latching mechanism for dead locking the latch bolt of a door lock to preclude unauthorized forcing of the latch bolt back into its casing or housing by pressure applied to the outer extended end of the latch bolt. Thus when the door is closed and locked, entry can only be gained from the outside by the use of the proper key for the present invention precludes retraction of the latch bolt and entry by means of a tool or instrument pressed against the tapered outer end of the latch bolt.

Another object of the present invention is the provision in a door lock of a novel combined assembly of a latch bolt and a dead latching mechanism for preventing unauthorized retraction of the latch bolt in its casing and opening of the door.

The present invention further comprehends a novel latch bolt assembly including a latch bolt housing, a retractable latch bolt and bracket, a spring-biased dead bolt and a locking bar all carried within the housing with the locking bar pivotally mounted at one end in the housing between the latch bolt bracket and the dead bolt and the other end free but tensionally held in contact with a cam surface on the dead bolt, and a stop on the latch bolt bracket, the dead bolt when retracted upon closing the door moving the free end of the locking bar into the path of the stop and thereby preventing unauthorized forcing of the latch bolt back into its casing by a tool or instrument engaging the extended end of the latch bolt.

A further object of the present invention is the provision of a novel dead bolt assembly for a latch construction for preventing retraction of the latch bolt except in the intended manner.

The present application is a division of our United States application Serial No. 303,534, filed August 9, 1952, now Patent No. 2,814,194, granted November 26, 1957.

In the drawings:

Figure 1 is a perspective view of the present novel lock construction assembled for use in a door or other closure.

Fig. 2 is a disassembled view of the latch bolt unit or assembly disconnected from the cam tube and lock unit or assembly, the two assemblies being ready for insertion into their respective bores in a door or other closure, after which the inner clamp plate, escutcheon and inner knob are assembled on the cam tube assembly.

Fig. 3 is a perspective view of the outer knob carrying the tumbler lock in which a key has been inserted for unlatching the door from its locked position.

Fig. 4 is an enlarged view in horizontal cross section taken longitudinally through the completely assembled lock construction when mounted in a door or closure.

Fig. 5 is a fragmentary enlarged view in vertical cross section taken longitudinally through the outer knob, its lock cylinder and associated parts.

Fig. 6 is an enlarged view in vertical cross section taken on the line 6—6 of Fig. 4.

Referring more particularly to the disclosure in the drawings and to the novel illustrative embodiment therein shown, the present lock construction is adapted for use with a door or closure having an outer knob adapted to be locked or unlocked from the interior of a room or enclosure by the rotation of a turn button. When the button is manually turned or moved to locking position, the inner knob may be turned to retract the latch bolt, but such turning does not release the button from its locked position so that upon again closing the door, the door is locked to the exterior but subject to being opened from the exterior by a key inserted into the cylinder of a tumbler lock assembly in the outer knob. However, when the turn button on the inner knob is manually turned or moved to unlocked position, the door may be freely opened from the interior or exterior by a mere turning of either knob which retracts the latch bolt.

As shown in Figs. 1 to 6 inclusive, the novel lock construction comprises an outer knob **10** secured to an outer split cam in the form of a tubular cam member **11** longitudinally slotted at **12** for the reception of a detent **13** slidably received in the slot **12** (Fig. 4). An expansible knob spring **14** carries a button or projection **15** which is spring-biased into locking position in an opening **16** in the outer cam member **11** and in an opening to be aligned therewith in the cylindrical neck **17** or extension of the knob **10**.

An inner knob **18** is removably mounted upon an inner split cam or tubular cam member **19** by means of a detent **21** adapted to be received in the longitudinal slot **22** in the cam member **19**. To retain the knob **18** in fixed position upon the cam member, there is provided a snap spring **23** secured at one end in the internal cylindrical surface of the cam member **19** by means of a rivet or the like **24**, and at its other or free end this snap spring is provided with a latching button or projection **25** adapted to be received in an opening **26** in the cam member **19** and in an opening to be aligned therewith in the neck or cylindrical extension **27** of the knob **18**.

As shown more clearly in Fig. 5, the outer cam member or split cam tube **11**, in addition to its longitudinal slot **12**, is longitudinally slotted at its outer end at **28** for receiving and retaining a key lock assembly **29** and is cut away or notched at its opposite or inner end to provide an arcuate camming projection **31** with its spaced longitudinal edges **32** forming spaced camming edges or surfaces, and is further provided with a projection **33** forming a stop or abutment (Fig. 4).

The inner cam or cam tube member **19** (Fig. 4) is expanded or enlarged at its inner end and cut away or notched to provide an arcuate camming projection **34** adapted to overlap the arcuate camming projection **31** of the cam tube member **11**, and with its spaced edges **35** providing longitudinally extending cam edges or surfaces. The extreme inner end of the cam tube member **19** is adapted to abut against the projection **33** forming a stop to dispose these cam members in their proper operative relationship. Adjacent the outer end of this arcuate cam projection **34**, this enlargement is provided with an outwardly projecting tongue or lip **36** providing a stop or abutment.

A center tube **37** is inserted into and provides a rein-

forcement for the adjoining camming ends of the cam members **11** and **19** and a carrier housing and supporting locking means as will be later more fully explained. This tube at its outer end is provided with inturned spaced flanges **38** (Fig. 5), and adjacent its other end is provided with a camming slot **39** for receiving a stem pin **41** carried by and projecting from the outer enlarged end **42** of a turn button stem **43**. This turn button stem is shown as of tubular construction and carries at its outer end a turn button **44** for rotating this stem through an arc of approximately 90° from its unlocked to its locked position (Fig. 4) as defined by the camming slot **39** in the center tube **37**. Intermediate its ends, the center tube **37** is notched at **46** and at **46a** (Fig. 6), with these notches or slots of this center tube so located as to be aligned with the notched portions of the cam tube members **11** and **19** and with all of these notches opening outwardly.

Within the center tube **37** is positioned a longitudinally movable and slidably mounted locking slide bar **45** slotted intermediate its length to provide spaced, outwardly extending projections **47** and **48**, and a coil spring **49** seating at one end against the longer projection **47** of the slide bar **45** and retained in position upon an outwardly projecting lug **51**, and at its other end seating against the spaced inturned flanges **38** on the end of the center tube **37**. These flanges are spaced apart for conformably receiving the projecting end **52** on the key lock assembly **29**.

This coil spring **49** spring-biases the locking slide bar **45** to the right as shown or toward the inner knob **18** and tends to move this locking slide bar out of its locking position in a slot **53** in the end wall **54** of a stationary housing **55**, whenever the turn button **44** is manually turned to its unlocked position to thereby release the stem **43**. As the turn button **44** is staked or rigidly attached at **56** (Fig. 4) to the turn button stem **43**, release of the turn button **44** and its stem **43** can only be accomplished by a manual turning thereof whereby the stem pin **41** is moved from the upper narrow end to the lower end of the camming slot **39**.

Thus when the turn button **44** is rotated to the release or unlocked position, either the inner knob **18** or the outer knob **10** may be turned to retract the latch bolt and permit opening of the door. But when the turn button is turned through an arc of approximately 90° from its unlocked position to lock the door, the inner knob **18** may be turned to open the door but such turning of this knob does not release the turn button **44** or its locking slide bar **45** and upon again closing, the door is automatically locked and remains locked until opened from the interior by turning of the knob **18** or by insertion of a key **50** into the key lock assembly **29**. In other words, the turn button **44** when once turned to locked position remains in such locking position until manually released by grasping and turning it back to its unlocked position.

The stationary housing **55** is cut away or notched (Figs. 1 to 4 and 6) to provide an opening **57** aligned with the openings or notches of the outer and inner cam members **11** and **19**, the center tube **37** and the locking slide bar **45**, with the opening in the housing **55** defined by a pair of inturned and opposed flanges **58** each provided at one end with an inturned or inwardly projecting lip **59**. The housing is further provided with spaced and substantially diametrically disposed inturned tongues or flanges **61** stamped and bent or formed inwardly from the body of the housing **55** with either providing a fulcrum about which a floating push plate or follower **62** is adapted to pivot or rock. This push plate or follower seats or bears against the end of a pusher or slide member **63** for retracting the latch bolt **64**. This push plate or follower is of substantially greater width at one end and thereat is provided with inturned flanges **65** and at its other or narrower end with similar flanges **66**, each bent inwardly as shown in Fig. 6 to form enclosures. The enclosures formed by the flanges **65** are adapted to receive the ends **67** of a coil spring **68** anchored in the housing, with these ends **67** of the spring **68** spring-biasing the follower or push plate **62** to its neutral position. Rocking movement of this floating push plate or follower **62** is effected about either inturned tongue or flange **61** on the interior of the housing **55**.

As clearly shown in Fig. 6, the cam edges **32** and **35** on the arcuate camming projections **31** and **34** of the outer and inner cam members **11** and **19**, respectively, are adapted to engage the flanged side of the follower plate **62** and rock or rotate it to depress the pusher or slide member **63** and retract the bolt. It will also be seen that the arcuate camming edges **69** on the center tube **37** at the slot **46** are adapted to engage the follower or push plate **62** and cause the latter to rotate or rock sufficiently to retract the latch bolt **64** when a proper key **50** is inserted into the tumbler lock and rotated whereby the lug **52** on the end of this tumbler lock rotates the center tube **37** through the required arc.

The pusher or slide member **63** (Figs. 4 and 6) is slidably mounted in the reduced inner end **70** of a bolt housing **71**, and is adapted to be depressed or forced inwardly into this bolt housing by a rocking movement of the follower or push plate **62** whereby to apply a thrust to force this pusher or slide member **63** forwardly to cause retraction of the latch bolt **64** (Figs. 4 and 6). This pusher or slide member **63** is of channel shape and provided with a longitudinally extending slot **72** in the base or connecting wall **73** thereof, and with aligned longitudinally extending slots **74** in the opposite or side walls **75** thereof. At its forward end this pusher or slide member is provided with a ledge or seat **76** between which and the latch bolt **64** there is interposed a compression spring **77**.

Mounted upon and carried by a cross pin **78** within the pusher or slide member **63** is a bolt cam or rocker arm **79**. This cross pin **78** extends through the slots **74** in the pusher or slide cam **63**, and has its ends secured in the opposite sides of the reduced upper end **70** of the stationary latch bolt housing **71**. This rocker arm or bolt cam **79** is provided with a shoe or projection **80** extending into the slot **72** and a projection **81** seating against a flange or lug **82** on the inner end of a bolt bracket **83**. The lower end **84** of this bolt bracket is rigidly secured to and carries the latch bolt **64**. The spring **77** bears at one end against the latch bolt **64** and at its other end against the seat **76** on the pusher or slide member, whereby to spring-bias the latch bolt to its extended, latching or engaging position in the strike plate A on the adjacent door jamb.

The latch bolt housing **71** is adapted to carry a dead bolt **85** adapted to engage the strike plate A when the door **86** equipped with the present lock assembly is closed. This dead bolt (Figs. 4 and 6) is spring-biased or spring-actuated to its outer projected position by a coil spring **87** disposed in a longitudinal recess or bore in the dead bolt **85** and bearing at one or its forward end against the dead bolt and at its other or rear end encompassing a reduced end **88** on a spring pin **89** and seating against a shoulder on the pin. This spring pin is also reduced at its inner end **91** to provide an annular shoulder with this end **91** received in and projecting through an opening **92** in the latch bolt housing **71**.

The rear face **93** of the dead bolt adjacent the bolt bracket **83** is provided with a longitudinal embossment having along one edge and extending lengthwise thereof an elongated camming surface **94**, the outer or forward end thereof extending longitudinally of the dead bolt and merging into a rearwardly inclined portion **94a**. This camming surface **94** is contacted by a laterally projecting lug **95** on the outer or forward end of a locking bar **96** disposed between the adjacent but spaced surfaces on the dead bolt **85** and the bolt bracket **83**, the other or

inner end of this bar being pivotally mounted upon the cross pin 78 carrying the bolt cam or rocker arm 79. A leaf spring 97 having its one end 98 anchored in a slot in the locking bar 96 and its free end bearing against the interior wall of the bolt housing 71, spring-biases and maintains the lug 95 on this locking bar against the camming surface 94, and whereby this lug 95 and the adjacent outer or free end 96b of the locking bar 96 are moved by this camming surface upon relative movement between the latch bolt 64 and its bracket 83 and the dead bolt 85.

A relatively narrow stop or abutment 99 (Fig. 4) on and projecting from the adjacent or rear face of the bolt bracket 83 is so positioned that when the door 86 is closed and the dead bolt forced inwardly to the position shown in Figs. 4 and 6 from the inoperative position shown in Figs. 1 and 2, should the latch bolt 64 be attempted to be forced inwardly into its casing by the use of a tool or instrument pressed against the outer rounded or tapered face of the latch bolt, retraction or inward movement of the latch bolt in its housing so as to unlatch the door is prevented by engagement of this stop or abutment 99 against the adjacent, outer end 96b of the locking bar 96 which has been cammed by the cam surface 94 into alignment with and into the path of movement of the stop 99.

However, the pivotally mounted locking bar 96 does not prevent the latch bolt 64 from being retracted in normal operation by rotation of either knob 10 when unlocked, or knob 18, or by rotation of the key 50. In either event, the retraction of the latch bolt 64 by actuation of the push plate or follower 62 and the pusher or slide member 63, and which members 62 and 63 are not actuated when unauthorized entry is attempted by depressing the latch bolt by means of an instrument, causes the end 63a of the pusher or slide member 63 to engage the shoulder or cam surface 96a on the locking bar 96 to thereby cam this locking bar to the left as viewed in Fig. 6 and move its outer or free end 96b from beneath the aligned stop or abutment 99 on the bolt bracket 83.

When both the latch bolt 64 and the dead bolt 85 are extended or projected as in Figs. 1 and 2, the outer or forward end of the embossment on the dead bolt is disposed behind the shoulder on the adjacent inner end of the latch bolt 64 whereby retraction of the latch bolt carries along the dead bolt.

The key lock assembly 29 includes a plug 101 fitting comformably in the opening 102 in the end of the knob 10, and carrying plural tumblers 103 in radial recesses, a cylinder 104 carrying aligned drivers 105 for the tumblers and each spring-pressed by a coil spring 106 seating at its upper or outer end against a retainer 107. A plug ring 108 carrying the lug 52 projecting into the center tube 37, encompasses and is affixed to the inner end of the plug 101 by a pin or the like 109 whereby when the proper key 50 is inserted in the tumbler lock assembly 29, the key may be rotated and it in turn rotates the plug 101 and the plug ring 108 and the latter rotates the center tube 37.

Rotation of the center tube 37 with the locking slide bar 45 in its extended, locked position in the slot 53 in the end wall 54 of the stationary housing 55 is permitted by reason of the slot 46 in the center tube 37 which permits this tube to rotate through an arc sufficient to allow its camming edges 69 to abut and rock the follower or push plate 62 to depress the pusher or slide member 63 and retract the latch bolt 64. At the same time, the arcuate camming projection 31 on the tubular cam member 11 having its camming edges 32 prevented from being rotated by the position of the locking projection 47 on the locking slide bar 45, prevents the knob 10 affixed to this cam member 11 from being rotated. However, such locking projection 47 does not prevent the inner knob 18 and its cam member 19 from being rotated to cause its camming edges 35 to rock the follower or push plate 62 and retract the latch bolt.

The end wall 54 of the housing 55 is provided with a hub 111 providing a bearing for rotatably receiving the inner end of the tubular cam member 11 and is externally threaded for detachably receiving the threaded hub of a clamping plate 112. This clamping plate 112 is adapted to bear against the exterior of the door or closure 86 and is held in adjusted position by means of a screw 113 threaded into the end wall 54, with the end of the screw adapted to enter an opening or slot 114 in the exterior clamping plate 112. An escutcheon 115 covers this exterior clamping plate 112 and is preferably held fixed by turning inwardly or indenting its peripheral flange 116 over the peripheral edge of the clamping plate.

The open end of the housing 55 is closed by a cover plate 117 having an outwardly projecting hub 118 encompassing and providing a bearing for rotatably receiving the tubular cam member 19. This cover plate 117 is held in fixed position by crimped or undulated flanges or tongues 119 projecting outwardly in spaced relation from the cylindrical wall of the housing 55. An inner clamping plate 121 is removably mounted on the cover plate 117 by means of spaced projecting machine screws 122, with the head and adjacent portion of the shank of these screws adapted to be received in spaced keyhole slots 123 in the clamping plate 121. It will thus be seen that when the clamping plate is mounted over the heads of these screws 122 and is rotated so that the shanks of these screws are disposed in the narrow ends of the keyhole slots 123 and the screws tightened, this clamping plate 121 bears against the inside of the door 86 and the lock assembly is held in fixed position. An escutcheon 124 is then applied over the clamping plate 121 and detachably held in assembled position by spaced snaps or detents 125 detachably interlocking with the peripheral edge or flange of the clamping plate 121.

From the above description and the disclosure in the drawings, it will be readily seen that the present invention comprehends two pre-assembled units shown separated in Fig. 2 and in Fig. 1 shown combined to form the present lock. The one pre-assembled unit may be referred to as the cam tube assembly and includes the outer knob 10 with its key lock assembly 29, the outer cam tube member 11 and the inner cam tube member 19 with their camming ends 31 and 34 disposed in overlapping relation, the floating follower or push plate 62 positioned in the encompassing stationary housing 55, the inner tubular insert 37 which is encompassed by and reinforces these cam tubes, and the locking slide bar 45, the turn button stem 43 and the turn button 44 all carried by the inner tubular insert 37 and forming the locking mechanism. The other pre-assembled unit may be referred to as the latch bolt assembly and includes the slide or pusher 63, the latch bolt 64 and its actuating mechanism in the latch bolt housing 71, and the face plate assembly B affixed thereto and adapted to be secured to the edge of the door 86.

In the assembly of these pre-assembled units, the cam tube assembly is inserted into its transverse bore or opening in the door to a position in which the pusher or slide member 63 on the inner end of the latch bolt unit or assembly may enter the opening 57 in the housing 55 and when the oppositely opening channels 143 of the end 70 of the latch housing are aligned with the projecting lips 59 on the tongues or flanges 58 on the housing 55, moving the cam tube assembly until its outer clamping plate 112 abuts the door 86, causes the oppositely projecting lips 59 on the housing 55 to enter the channels 143 and these are then retained and the units held in their proper assembled relation as shown in Fig. 1. The face plate B is then secured to the edge of the door 86 by screws or the like and the inner

clamping plate 121, the inner escutcheon 124 and the inner knob 18 are applied in sequence and secured in their proper operative relation.

Although there is herein disclosed a preferred embodiment of the present invention, it is to be understood that the same is but illustrative and susceptible of modification and change, and that the invention comprehends other details, arrangements of parts, features and constructions without departing from the spirit thereof.

Having thus disclosed the invention, we claim:

1. In a lock construction, a latch bolt housing, a retractable latch bolt having a latching end adapted to be received in an opening of a strike plate, a bracket in the housing carrying the latch bolt at one end thereof, a cam at the other end of the bracket for retracting the bracket and its latch bolt, a fixed pin on which said cam is pivotally mounted, a spring-biased dead bolt carried in the housing adjacent said bracket and latch bolt, a locking bar pivotally mounted adjacent one end on said pin between the bracket and the dead bolt and carrying a lug at its other free end, an elongated cam on the dead bolt adjacent the bracket, said cam having a cam surface extending longitudinally of said dead bolt and merging into a rearwardly inclined cam surface, tension means for maintaining the lug in contact with the cam faces, and a narrow stop provided on the adjacent face of the bolt bracket, said dead bolt when moved inwardly by engagement with the face of the strike plate and said latch bolt is received in said opening of the strike plate, said lug rides off the inclined cam surface of the locking bar and positions the free end of the latter in alignment with the stop of the bolt bracket whereby inward movement of the latch bolt by a force applied to the latching end thereof when latched to the strike plate causes said stop to engage the free end of the locking bar and prevent retraction of the latch bolt.

2. In a lock construction for a closure such as a door, a latch bolt housing, a retractable latch bolt, a strike plate for receiving the latching end of the latch bolt, a bracket in the housing carrying the latch bolt at one end thereof and intermediate its ends provided with a stop, a rocker arm pivotally mounted on a fixed pin in the housing, a spring-biased dead bolt carried in the housing adjacent said bracket and latch bolt and having an end projecting through the housing into contact with the strike plate, a locking bar pivotally mounted adjacent one end on said pin between the bracket and the dead bolt and provided with a projection on its other end, a cam on the adjacent face of the dead bolt, said cam having a longitudinally extending cam surface and a merging rearwardly inclined cam surface, tension means for maintaining the projection in contact with the cam surfaces and so positioned with respect to the other end of the locking bar that when the latch bolt is extended with its latching end received in the strike plate and the projected end of the dead bolt abuts the strike plate, the projection on the other end of the locking bar rides off the inclined cam surface and positions the end of the locking bar in the path of the top of the latch bolt causes said stop to engage the then on the bracket whereby a force applied to the latching end aligned end of the locking bar and prevents retraction of the bolt by a force applied to its latching end when the door is closed and the latching end of the latch bolt is received in the strike plate.

3. In a lock construction for a door or other closure, a latch bolt housing, a latch bolt assembly carried in the housing including a bolt bracket carrying a latch bolt, a strike plate for receiving the latching end of the bolt when the door is closed, a transverse pin in the housing, a bolt cam pivotally mounted on said pin, a locking bar pivotally carried at one end on said pin and having its other end projecting toward the latch bolt and along the bracket, a lug carried by the locking bar at said other end, a spring-biased dead bolt carried in the housing and extending longitudinally of the bracket with its outer end projected through the housing adjacent the latch bolt for abutting the strike plate and thereby depressing the dead bolt against the spring when the door is closed, a cam on said dead bolt engaged by the lug on the locking bar, said cam having a cam surface extending longitudinally of said dead bolt and a connected inclined cam surface, tension means for maintaining the lug against the cam surfaces and thereby controlling the position of the lug and the end of the locking bar, and an abutment on the bracket adapted to engage against the other end of the locking bar when it is attempted to depress the latching bolt by depressing its latching end when the door is closed, said lug and the other end of said locking bar being moved laterally from engagement of said lug with said inclined cam surface and onto said longitudinal cam surface upon said dead bolt being depressed by engagement with the strike plate.

4. In a lock construction for a door or other closure, a latch bolt housing, a latch bolt assembly carried in the housing including a bolt bracket carrying a latch bolt having a latching end adapted to have latching engagement with a strike plate, a transverse pin in the housing, a bolt cam pivotally mounted on said pin, a locking bar pivotally mounted adjacent one end on said pin and having its other end extending parallel to and alongside the bracket, a spring-biased dead bolt carried in the housing and extending longitudinally of the bracket with its outer end projected through the housing adjacent the latch bolt for abutting the strike plate and thereby depressing the dead bolt against the spring when the door is closed, an abutment on the bracket adapted to be engaged by the other end of the locking bar when the latch bolt is engaged by an instrument and attempted to be forced inwardly out of latching engagement with the strike plate, said dead bolt having an elongated cam on the rear face thereof including a longitudinally extending cam surface and a merging inclined cam surface, a lug on the other end of the locking bar, a leaf spring affixed at one end to the locking bar and its other end engaging the latch bolt housing for tensionally retaining said lug on the locking bar against said cam surfaces, whereby when the latching end of the latch bolt is in latching engagement with the strike plate and the outer end of the dead bolt is in contact with and depressed by the strike plate, the lug on the locking bar is moved out of engagement with the inclined cam surface and onto the longitudinal cam surface and the adjacent other end of the locking bar is positioned within the path of said abutment to prevent retraction of the latch bolt.

5. In a lock construction as set forth in claim 1, including a shoulder on said locking bar and means for engaging said shoulder for moving the free end of the locking bar out of alignment with said stop to permit retraction of the latch bolt.

6. In a lock construction as set forth in claim 4, including means for moving the lug out of contact with said cam and the other end of the locking bar out of alignment with said abutment to permit retraction of the latch bolt.

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UNITED STATES PATENT OFFICE

CERTIFICATE OF CORRECTION

Patent No. 2,871,047 January 27, 1959

Edwin W. North et al.

It is hereby certified that error appears in the printed specification of the above numbered patent requiring correction and that the said Letters Patent should read as corrected below.

Column 7, line 58, for "path of the top" read -- path of the stop --; lines 59 and 60 should read -- on the bracket whereby a force applied to the latching end of the latch bolt causes said stop to engage the then --, instead of as in the patent.

Signed and sealed this 19th day of May 1959.

(SEAL)
Attest:

KARL H. AXLINE
Attesting Officer

ROBERT C. WATSON
Commissioner of Patents