Dec. 3, 1968 M. RIFKIN 3,413,830

LATCH ASSEMBLIES, PARTICULARLY FOR WINDOWS

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Fig. 1.

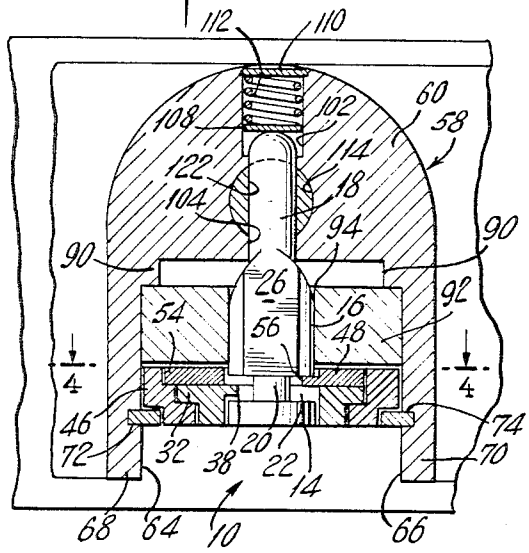



Fig. 2.

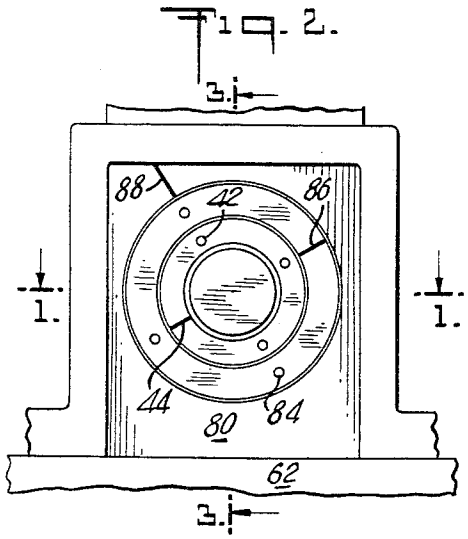



Fig. 3.

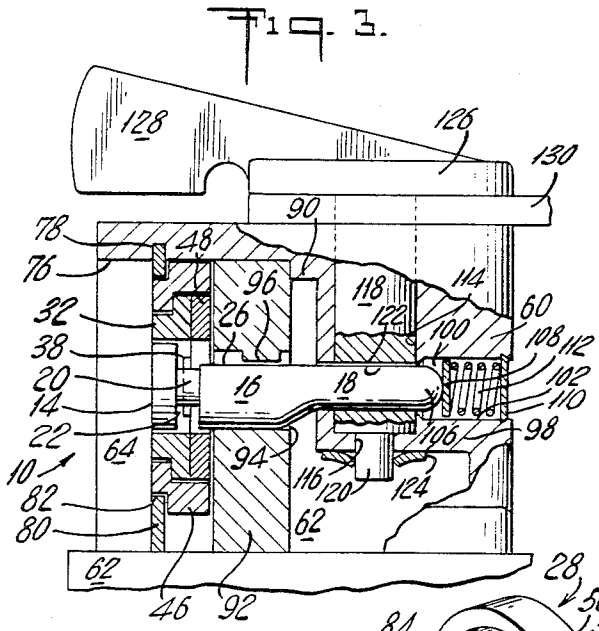



Fig. 4.

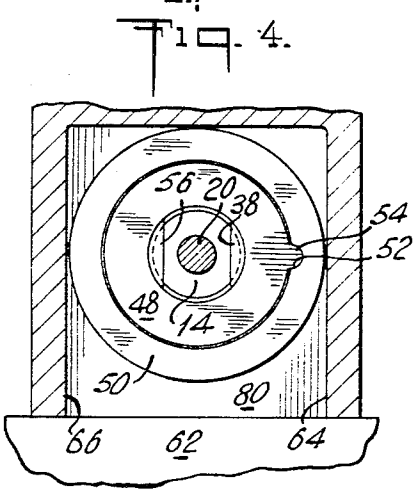
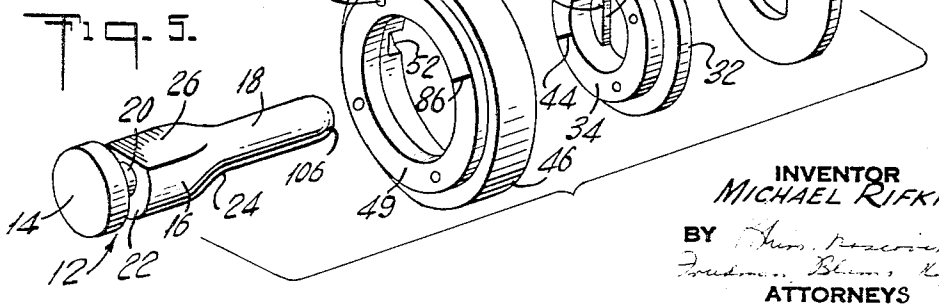



Fig. 5.




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Fig. 6.

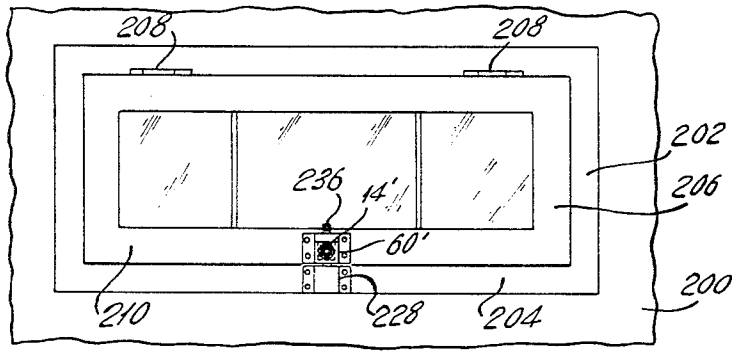



Fig. 7.

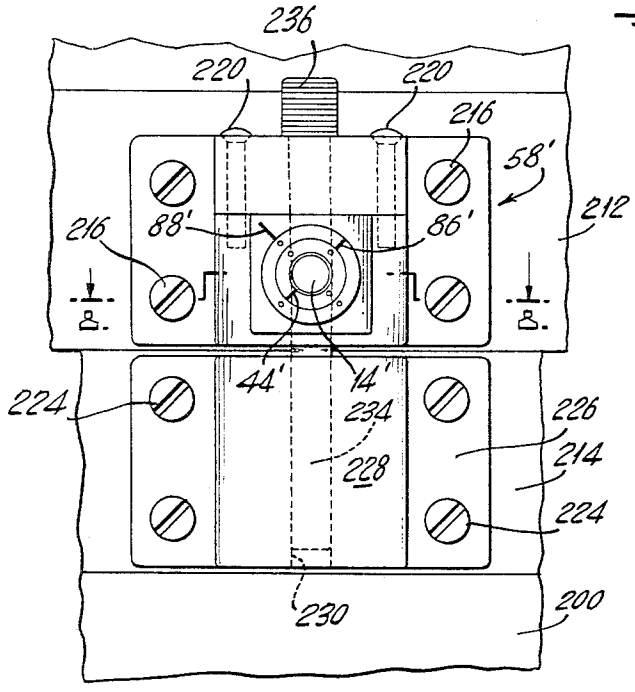
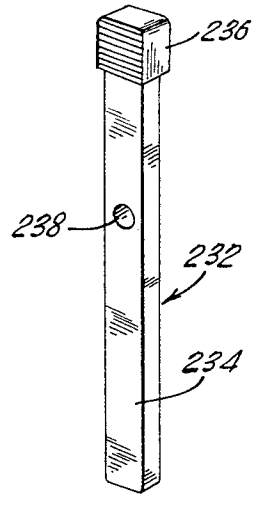



Fig. 9.



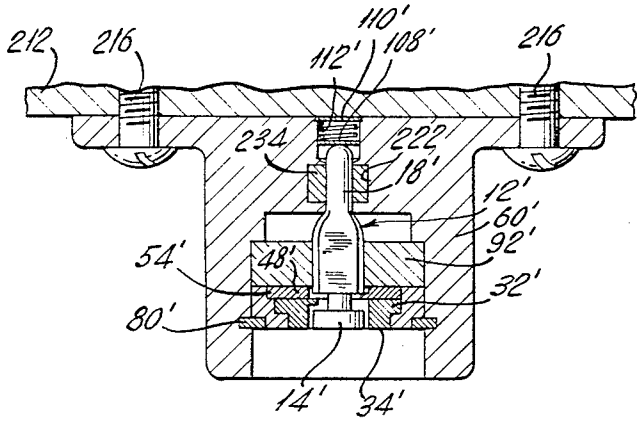




Fig. 8.

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3,413,830

# LATCH ASSEMBLIES, PARTICULARLY FOR WINDOWS

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Filed Dec. 7, 1966, Ser. No. 599,898
7 Claims. (Cl. 70—312)

The present invention relates to latch assemblies.

In particular, the present invention relates to latch assemblies which are particularly adapted to be used on windows to releasably lock the latter in a manner which is as burglar-proof as possible.

Thus, it is a primary object of the present invention to provide a latch assembly, particularly adapted to be used for releasably locking windows, which will make it extremely difficult, in fact impossible, for a burglar to unlatch the latch assembly and open the window when the latch assembly of the invention is in its window-locking condition.

At the same time, it is an object of the invention to provide a latch assembly of the above type which will nevertheless be capable of being placed in its unlocking condition by an individual who faces the latch assembly from the interior of a room, the objects of the invention including the provision of a frontally visual indicating means which will indicate to an individual in the interior of the room, in a visual manner, how the parts of the latch assembly of the invention must be situated in order to release the latch assembly.

A further object of the present invention is to provide a latch assembly of the above type which includes a structure which greatly facilitates the placing of the latch assembly of the invention in its unlocking condition.

Furthermore, it is an object of the present invention to provide a latch assembly of the above type which is suited for use with double-hung windows.

Also, it is an object of the present invention to provide a latch assembly of the above type which is suitable for use with swingable windows such as those used in cellars, for example.

In accordance with the present invention the latch assembly includes a locking member, which has a locking position, and a pair of rotary means which surround and are freely turnable with respect to this locking member for retaining the latter in its locking position except when both of the rotary means are simultaneously in given angular positions, respectively, and the latch assembly of the invention further includes a mounting means for mounting the locking member for movement to and from its locking position and for mounting the pair of rotary means for rotary movement with respect to the locking member, so that unless both of these rotary means of the invention are simultaneously in the above given positions thereof, respectively, the locking member cannot be removed from its locking position.

The invention is illustrated by way of example in the accompanying drawings which form part of this application and in which:

FIG. 1 is a sectional plan view of one possible embodiment of a latch assembly according to the invention, the section of FIG. 1 being taken along line 1—1 of FIG. 2 in the direction of the arrows;

FIG. 2 is a front elevation of the latch assembly of FIG. 1;

FIG. 3 is a longitudinal sectional view of the latch assembly taken along line 3—3 of FIG. 2 in the direction of the arrows;

FIG. 4 is a transverse section taken along line 4—4 of FIG. 1 in the direction of the arrows;

FIG. 5 is an exploded perspective illustration of the



locking member and pair of rotary means of the present invention;

FIG. 6 is a simplified fragmentary elevation of part of a wall such as a cellar wall provided with a swingable window which carries another embodiment of a latch assembly according to the present invention;

FIG. 7 is an enlarged illustration of that part of FIG. 6 where the latch assembly of the invention is located;

FIG. 8 is a sectional plan view taken along line 8—8 of FIG. 7 in the direction of the arrows; and

FIG. 9 is a perspective illustration of a lock stem used with the latch assembly of FIGS. 6–8.

Referring to the drawings, and more particularly to FIGS. 1–5 thereof, there is shown therein a latch assembly or sash lock **10** which may be used with conventional types of double-hung windows, either as an original installation sash lock or as a replacement sash lock. The latch assembly or sash lock of the present invention includes a locking member **12** in the form of a lock bolt having a head part **14**, a shaft or body part **16**, and a terminal end or lock part **18**. The head and body parts are interconnected by a neck **20** which defines a peripheral groove **22** for the reception of key portions of a pair of rotary means, as described in greater detail below. The body part **16** is contoured as indicated at **24** in FIG. 5 so as to smoothly merge with the lock part **18**, and the body part **16** also has a flattened surface **26** which, as viewed in FIG. 3, is in a plane which contains the uppermost longitudinal edge of the lock part **18**.

The sash lock of the invention includes a pair of rotary means **28** and **30** which surround and are freely turnable with respect to the lock bolt **12** and which retain the latter in a locking position until both the rotary means **28** and **30** are simultaneously in given angular positions. The rotary means **30** is in the form of a ring **32** made of any suitable metal or plastic, for example, and having a stepped periphery providing the ring **32** with a forward annular portion **34** of relatively small diameter and with a rear annular portion **36** of a diameter larger than the diameter of the forward portion **34**. The inner periphery of the ring **32** is of a non-circular configuration which mates with the non-circular configuration of the body part **16** of the bolt **12**, resulting from the flattened surface **26** of the body part **16**, and for this purpose the inner periphery of the ring **32** fixedly carries a key portion **38** which may be integrally formed with the ring **32** and which has a free straight edge **40** the length of which substantially corresponds to the transverse width of the flattened surface **26**.

At its front surface the annular portion **34** of the ring **32** is provided with small indentations **42** to facilitate rotation of the ring **32** through the intermediation of a suitable instrument or device.

In addition, the front surface of the annular portion **34** carries a radially extending index mark **44** which will visually indicate to an individual having frontal visual access to the sash lock the angular position of the ring **32**.

The rotary means **28** includes a pair of rings **46** and **48**. The ring **46** of the rotary means **28** has an internal stepped periphery mating with the external stepped periphery of the ring **32**, as is particularly apparent from FIGS. 1 and 3, so that while the ring **32** is freely turnable within the ring **46**, the front annular portion **49** of the ring **46** coacts with the rear annular portion **36** of the ring **32** to limit forward displacement of the ring **32**.

The outer periphery of the ring **46** is also stepped so that the front portion **49** is of a smaller diameter than the rear portion **50** of the ring **46**, and this stepped outer periphery of the ring **46** has a purpose referred to below. As is apparent from FIGS. 1 and 3, when the pair of

rotary means 28 and 30 are assembled with the ring 46 surrounding and housing the ring 32, the front surfaces of the rings 32 and 46 are substantially flush and located in a common plane which in fact is normal to the axis of the bolt 12, while the larger diameter rear annular portion 50 of the ring 46 extends rearwardly beyond the rear surface of the ring 32.

The portion of the ring 46 which extends rearwardly beyond the ring 32 receives the ring 48 of the rotary means 28, and the inner periphery of the rear portion 50 of the ring 46 is formed with a notch 52 which receives a peripheral projection 54 of the ring 48, this ring 48 having its outer periphery closely surrounded by the inner periphery of the rear annular portion 50 of the ring 46, so that by locating the projection 54 in the notch 52 the ring 48 is constrained to rotate with the ring 46, and the rear surface of the ring 48 is substantially flush with the rear surface of the ring 46, when the parts are assembled, as indicated in FIGS. 1 and 3, so that in this way when the ring 46 is turned the ring 48 will turn therewith and with respect to the rotary means 30.

The inner periphery of the rotary means 28 also is of a non-circular cross section mating with the non-circular cross section of the body part 16 of the bolt 12, and for this purpose the otherwise circular inner periphery of the ring 48 is provided with a straight chordal portion 56 the length of which corresponds substantially to the length of the edge 40 and the width of the flattened surface 26 of the bolt 24.

The sash lock or latch assembly of the invention includes a mounting means for mounting the lock member 12 for movement to and from its locking position and for mounting the pair of rotary means 28 and 30 for free rotary movement around the lock member 12. This mounting means 58 of the sash lock of the invention includes a housing part 60 which is secured to the check rail 62 of the lower sash of the double-hung window, this check rail 62 being fragmentarily illustrated in the drawings. The lower portion of the housing 60 is recessed so as to have a hollow interior 62, shown most clearly in FIG. 3, and in this way the housing 60 has a pair of opposed parallel substantially flat inner side surfaces 64 and 66 (FIG. 1) which extend upwardly from the check rail 62 which serves to close the open bottom of the housing 60. The side walls 68 and 70 of the housing 60 are respectively formed with inner straight parallel grooves 72 and 74, while the downwardly directed upper inner surface 76 of the housing 60 (FIG. 3) is formed with a transverse groove 78 extending between and communicating with the grooves 72 and 74. Before the housing part 60 is secured to the check rail 62, the components of the sash lock assembly are assembled, and during this assembly the grooves 72, 74, and 78 respectively receive the opposed side edges and top edge of a closure plate 80 which is formed with a circular opening 82 the diameter of which corresponds to the outer diameter of the front annular portion 49 of the ring 46, so that the pair of rotary means can be situated behind the plate 80 while being supported thereby for free rotary movement, the front annular portion 49 of the ring 46 turning freely within the opening 82 of the plate 80. The bottom edge of the plate 80 rests directly on the top surface of the check rail 62 when the parts are assembled.

It will be noted from FIGS. 2 and 5 that the front surface of the annular portion 49 of the ring 46 is also provided with small indentations 84 capable of receiving the points of a suitable instrument or device which facilitates rotation of the ring 46, and in addition the ring 46 carries at the front surface of its portion 49 an index mark 86 which is visible to an individual who has frontal visual access to the latch assembly of the invention.

With this construction it will be seen that the front surface of the plate 80, where it extends inwardly beyond the opposed inner side surfaces 64 and 66 and the top surface 76 of the housing 60 is freely visible to one who has frontal visual access to the latch assembly, from the interior of the room which includes the window which carries the latch assembly, and this front surface of the plate 80 carries an index mark 88 which remains stationary inasmuch as the plate 80 remains stationary.

The interior surface of the housing part 60, which defines the hollow interior 62 thereof, is of a stepped configuration to the rear of the grooves 72, 74, and 78, so that in this way the hollow interior of the housing part 60 is provided with a shoulder 90 which extends upwardly from the bottom surface of the housing part 60 and across the upper inner surface 76 thereof. This shoulder 90 determines the position within the housing of a block 92 which has opposed side and top surfaces respectively engaging the side surfaces 64 and 66 and the upper inner surface 76 of the housing part 60, the bottom surface of the block 92 resting directly on the check rail 62. It will be noted that the block 92 is situated just to the rear of the pair of rotary means 28 and 30 between the latter and the shoulder 90. This block 92 is formed with a bore 94 which receives the body part 16 of the bolt 12 when the bolt 12 is in its locking position shown in FIGS. 1 and 3. The bore 94 is of a circular cross section mating with the cross section of the body part 16, except that the block 92 also is provided with a transversely extending chordal portion 96 having a downwardly directed flat surface the width of which corresponds substantially to the width of the flattened surface 26, so that the bore 94 of the block 92 also is of a non-circular configuration mating with the non-circular configuration of the body part 16. It will be noted that with this construction when the parts are assembled and the bolt 12 is in its locking position, the block 92 prevents rotary movement of the bolt 12.

The rear section 98 of the housing part 60 is formed with a bore 100 having an elongated rear portion 102 which forms an extension of and is of a diameter somewhat greater than the elongated front portion 104 of the bore 100. The diameter of the front portion 104 of the bore 100 equals the diameter of the inner part 18 of the lock bolt 12, and the bore 100 is coaxial with the bore 94 as well as with the common axis of the pair of rotary means 28 and 30 and the opening 82, so that when the bolt 12 is introduced into the assembly the inner locking part 18 thereof will be slidably received in the front bore portion 104 of the bore 100, and it will be noted that the rearmost convexly curved, hemispherical end 106 of the belt 12 extends into the larger portion 102 of the bore 100.

A plate 108 is freely movable within the bore portion 102 in the axial direction thereof and directly engages the curved rear end 106 of the part 18 of the bolt 12, and the rear end of the bore 100 is closed by a suitable closure member 110 which can be fixed in any suitable way in the position shown in FIGS. 1 and 3. For example, the rear surface of the housing part 60, where it surrounds the rear end of the bore 100 is peened over the bevelled edge of the closure plate 110 so as to retain the latter in the position shown in FIGS. 1 and 3. Situated between and pressing against the plates 108 and 110 is a compression spring 112 which serves a purpose referred to below.

In addition to being formed with the bore 100, the rear section 98 of the housing part 60 is formed with a vertical bore 114 which extends downwardly from the top surface of the housing part 60 and which intersects and extends beyond the front portion 104 of the bore 100, this bore 114 terminating at its bottom region in a bore portion 116 which is of a smaller diameter than the remainder of the bore 114 and which communicates with the hollow interior 62 of the housing part 60. The bore 114 receives a lock stem 118 which is of a cylindrical cross section and has a diameter matching that of the bore 114, so that the lock stem 118 is freely turnable within the bore 114 while being insertable downwardly into the latter, and the stem 118 has a bottom end portion 120 of reduced diameter extending through the smaller lower portion 116

of the bore 114, in the manner shown most clearly in FIG. 3. The stem 118 is formed with a transverse bore 122 extending therethrough and having a diameter corresponding to that of the lock part 18 of the bolt 12, so that when the stem 118 is within the bore 114 and is turned to an angular position where its transverse bore 122 registers with the bore portion 104 of the bore 110, the lock part 18 can extend through the transverse bore 122 and into the rear portion 102 of the bore 100 so as to prevent turning of the stem 118 when the lock member 12 is in its locking position shown in FIGS. 1 and 3.

The inner surface of the housing part 60 carries a lock ring 124 (FIG. 3) which engages the reduced end 120 of the stem 118 so as to retain the latter against axial displacement while permitting rotary movement of the stem 118. The stem 118 is fixed at its top end to a part 126 which has a finger-piece 128 for facilitating manual rotation of the parts 126 and 118. The housing 60 not only pivotally mounts the latch part 126 but also the latching part 130 which has a hook-shaped terminal end or the like (not shown) which is formed complementary to a companion latch part for interengagement therewith for locking the sashes, in a manner apparent to those skilled in the art. The part 130 is secured in position between the housing 60 and the part 126, and the stem 118 extends through the part 130 and is operatively connected therewith in any suitable manner to provide conjoint rotation of the parts 126, 130, and 118 as a unit on manipulation of the finger-piece 128, the latter controlling sash latching and unlatching. It will be understood that the part 128 is manually actuated to the sash latched position, and thereafter the sashes may be locked in a burglar-proof manner by installing the lock bolt 12 in a manner described below. When the lock bolt 12 is in its locking position the assembly 126, 130, 118 is locked against rotation by interengagement of part 18 in bore 122 of stem 118. In the unlatched position the bore 122 will also register with the bore 104 so that it is also capable of receiving the lock bolt at this time, and if desired the latter may be installed for storage in the assembly, so that the lock bolt 12 is self-storing in the sash lock.

When the lock bolt 12 is removed from the latch assembly of the invention the plate 108 is urged by the spring 112 to the region of the shoulder defined between the bore portions 102 and 104 of the bore 100. Assuming that the lock bolt 12 is not in its locking position, the operator can manipulate the finger-piece 128 so as to place the components 126, 130, 118 in their sash locking position, and at this time the bore 122 will register with the bore 104. Now the operator will turn the pair of rotary means 28 and 30 so that the index mark 86 forms an extension of the index mark 88, and so that the index mark 44 will form an extension of the index mark 86, and when all of these index marks are thus aligned so that they form different sections of a common straight line, the chordal edge 56 is in the same plane as the chordal surface 96 of the block 92, and the chordal edge 40 of the key portion 38 is also in the same plane as the chordal edge 56 and surface 96. With the pair of rotary means placed in these particular, given angular positions the bolt 12 can be introduced with the flattened surface 26 thereof sliding along the chordal edges 56, 40, and the downwardly directed surface 96 of the bore 94 of the block 92, and in this way the lock part 18 will be received in the bore 122 of the stem 118 so as to secure the latter in its locked position.

The operator continues to insert the bolt 12 until the inner end 106 thereof engages the plate 108 and pushes the latter rearwardly in opposition to the spring 112, and this movement is continued until the front exposed surface of the head 14 of the bolt 12 is flush with and located in the same plane as the front exposed surfaces of the rings 32 and 46, this latter plane which contains the front surfaces of the head 14, the ring 46, and the ring 32 also containing the front surface of the plate 80.

With the bolt thus axially displaced into the assembly to the position shown in FIGS. 1 and 3, the operator will turn the pair of rotary means 28 and 30 from their positions where their index marks are in alignment with each other and with the mark 88 to any haphazard positions such as those shown in FIG. 2.

The groove 22 formed by the neck 20 of the bolt 12 is sufficiently wide to receive both of the key portions 38 and 57 of the pair of rotary means, this key portion 57 terminating in the chordal edge 56. As is particularly apparent from FIG. 1, the key portion 57 of the ring 48 has a front surface which is flush with the front surface of the ring 48 but is of a lesser thickness than the ring 48 so that the rear surface of the key portion 57 is situated slightly forwardly of the rear surface of the remainder of the ring 48, and thus the spring 112 will urge the lock bolt 12 to the position shown most clearly in FIG. 1 where the rear surface which defines the groove 22 is pressed against the rear surface of the key portion 57. In addition, the spring acts through the bolt and the ring 48 to press the front surface of the latter against the rear surface of the ring 32, so that the larger rear annular portion 36 of the ring 32 is pressed between the front annular portion 49 of the ring 46 and the ring 48. The pair of rotary means are thus both simultaneously pressed against each other and pressed into engagement with the rear surface of the plate 80 which serves to limit the forward movement of the pair of rotary means while at the same time mounting the latter for turning movement with respect to each other and with respect to the bolt 12.

Therefore, once the operator displaces the bolt 12 into its locking position and turns the pair of rotary means 28 and 30 from the given positions thereof where their index marks are aligned with each other and with the index mark 88, the pair of rotary means will retain the bolt 12 in its locking position since the key portion 57 which becomes situated within the groove 22 prevents forward movement of the bolt 12 from its locking position.

An individual who is in the room and who has frontal visual access to the latch assembly of the invention can turn the pair of rotary means with respect to each other through application of a suitable tool or device to the indentations 42 and 84, until the index marks are all in common alignment, whereupon the spring 112 will eject the bolt forwardly so as to very greatly facilitate the removal of the bolt from the assembly during unlocking thereof. If desired, spring assembly 112 may be eliminated and a magnetic extractor can be used for removal of bolt 12.

On the other hand, if the bolt 12 is in its locking position and a burglar should attempt to seek access to the room, as by breaking the glass and attempting to manipulate the latch assembly from the outside, it will be impossible for the burglar to place the latch assembly in a position where the bolt will be released for forward movement from its locking position. Thus, should the burglar turn one of the rings 46 or 32, the other ring will have a tendency to turn with it at the same time, because of the presure between the rings provided by the pressing of the bolt against the ring 48 through the spring 112. Therefore, as long as both of the index marks 44 and 86 are out of alignment with each other, even if the burglar should happen to situate one of these marks in alignment with the mark 88, the bolt still will not be displaced out of the assembly because it is essential that both of the rotary means 28 and 30 be simultaneously in their given angular positions where their index marks are in aligned with each other and with the mark 88, before the bolt can be removed. Of course, if it should happen that the mark 44 is aligned with the mark 88, there will be absolutely no indication of such alignment

because the bolt will simply remain pressed against the key portion 57 of the ring 48. However, if the index 86 should happen to be placed in alignment with the mark 88, the spring will displace the bolt forwardly, but only into engagement with the key portion 38, and it will then be necessary for the burglar to continue to turn the rotary means 30 with respect to the rotary means 28 until the index mark 44 is aligned with the index mark 88, and of course this additional requirement renders the unlocking of the latch assembly of the invention virtually impossible except for one who is standing in front of the assembly and has frontal visual access thereto.

Referring to FIGS. 6–9, there is shown in FIG. 6 part of the inner surface 200 of a wall of a cellar, for example, which carries a stationary window frame 202 having a sill 204 which thus forms the cellar window sill. The frame 202 receives the window 206 in the form of a cellar sash which is hinged, by hinges 208 situated at the upper edge of the sash 206 to the frame 202 so that the window sash 206 is swingable upwardly to an open position and downwardly to the closed position where the bottom rail 210 of the window sash 206 is situated directly over the sill 204. In the closed position of the window 206, the bottom rail 210 thereof and the sill 204 have directly adjoining portions 212 and 214, respectively, shown in FIG. 7 and respectively carrying different parts of the latch assembly.

The portion 212 of the bottom rail 210 has secured thereto by any suitable fasteners 216 a latch assembly which to a very great extent is the same as that described above, so that the corresponding components are designated by the same reference characters primed and are not described further except for the differences between the structure of FIGS. 6–9 and that of FIGS. 1–5. In the embodiment of FIGS. 6–9 the inner surface of the housing part 60' which extends between its opposed inner side surfaces is directed upwardly, rather than downwardly, and the hollow interior of the housing 60' is closed not only by the plate 80' but also by a block 218 which is fastened to the housing part 60' by suitable fasteners 220 (FIG. 7).

The block 218 is formed with a vertical bore of rectangular cross section passing therethrough and registering with a vertical bore 222 of the housing part 60', this bore 222 corresponding to the bore 114 but being of a rectangular rather than circular cross section, as is apparent from FIG. 8. Thus, the bore 222 forms an extension of a corresponding bore of the same size in the block 218, and the bore 222 extendings completely through the housing part 60'.

The sill 204 has secured to its portion 214, as by suitable fasteners 224, a bracket 226 which has an intermediate portion 228 formed also with a vertical bore 230 of rectangular cross section passing therethrough and forming an extension of the bore 222 when the window sash 206 is in its closed position.

The registering vertical bores of the block 218, the housing part 60', and the bracket 228 are adapted to receive a lock stem 232 shown in FIG. 9. The stem 232 has a shank 234 the cross section of which matches that of the bore 222 as well as the bores which register therewith, and the shank 234 extends downwardly from an enlarged head end 236 which rests on the block 218 when the stem 232 is introduced into the latch assembly of the invention, extending through the latter into the bore 230 of the bracket 228 so as to hold the window sash 206 in its closed position. The shank 234 of the stem 232 is also formed with a transverse bore 238 passing therethrough, when the bottom surface of the head 236 rests on the block 218, the bore 238 is aligned with and receives the inner lock part 18' of the bolt 12', as shown in FIG. 8.

Thus, assuming that the lock stem 232 has been removed and that the window is open, the operator will close the window and will drop the stem 232 into the position thereof indicated in FIG. 7, and then the operator will insert the lock bolt 12' in precisely the manner described above in connection with FIGS. 1–5, so that the lock part 18' will pass through the bore 238, thus retaining the stem 232 in its locking position holding the window sash 206 against opening movement. Once the operator has pressed the bolt 12' inwardly until the front surface of its head 14' is flush with the front surfaces of the pair of rotary means 28' and 30', the operator will turn the pair of rotary means so that their index marks 44' and 86' are out of alignment with each other and out of alignment with the index mark 88', shown in FIG. 7, and thus the pair of rotary means 28' and 30' will serve to retain the bolt 12' in its locking position until the operator again places all of the index marks 44', 86', and 88' in common alignment with each other. It is apparent, therefore, that the embodiment of FIGS. 6–9 achieves the same advantages as that of FIGS. 1–5 while the structure of the invention is adapted for use with an entirely different type of window locking structure. It is a virtual impossibility for a burglar who breaks the glass of the window sash 206 to manipulate both of the rotary means 28' and 30' so that their index marks are in alignment with each other and with the mark 88', while at the same time a person standing in the interior of the room facing the latch assembly of the invention will have no difficulty in aligning all of the index marks whereupon the spring 112' will eject the bolt forwardly to greatly facilitate removal thereof in preparation for removal of the stem 232 so as to place the window sash 206 in a condition where it is capable of being opened.

What is claimed is:

1. In a latch assembly, a locking member having a locking position and a pair of rotary means surrounding and freely turnable with respect to said locking member and shaped for retaining the latter in said locking position thereof except when both of said rotary means are simultaneously in given angular positions, respectively, and mounting means for mounting said locking member for movement to and from said locking position thereof and for mounting said pair of rotary means for rotary movement with respect to said locking member, so that unless both of said rotary means are simultaneously in said given positions thereof, respectively, said locking member cannot be removed from said locking position thereof said mounting means and said pair of rotary means respectively having forwardly directed front surfaces all situated substantially in a common plane, and visual indicating means carried by said pair of rotary members and said mounting means for visually indicating at said front surfaces when said pair of rotary members are in said given positions.

2. In a latch assembly, a locking member having a locking position and a pair of rotary means surrounding and freely turnable with respect to said locking member for retaining the latter in said locking position thereof except when both of said rotary means are simultaneously in given angular positions, respectively, and mounting means for mounting said locking member for movement to and from said locking position thereof and for mounting said pair of rotary means for rotary movement with respect to said locking member, so that unless both of said rotary means are simultaneously in said given positions thereof, respectively, said locking member cannot be removed from said locking position thereof, said locking member being in the form of an elongated lock bolt and said pair of rotary means being respectively of annular configuration surrounding said lock bolt while being freely turnable with respect thereto, and mounting means retaining said lock bolt in a predetermined angular position at least when said lock bolt is in said locking position thereof, one of said pair of rotary means being in the form of a ring surrounding said lock bolt and having opposed front and rear surfaces, said ring having an exterior stepped periphery providing said ring with a front

circumferential portion of relatively small diameter and a rear circumferential portion of a diameter larger than said front circumferential portion, and the other of said pair of rotary means including a ring surrounding said ring of said one rotary means and having an inner stepped periphery substantially mating with the outer stepped periphery of said ring of said one rotary means, said ring of said other rotary means extending rearwardly beyond said rear surface of said one of said pair of rotary means and including next to said rear surface a second ring surrounding said lock bolt and connected to said first-mentioned ring of said other rotary means for rotary movement therewith, said lock bolt having a non-rotative cross-section in the region of said pair of rotary means and said ring of said one rotary means and said second ring of said other rotary means respectively having inner peripheries of non-rotative configuration coacting with the non-rotative cross section of said bolt to prevent axial displacement of the latter from said locking position unless both of said rotary means are in said given positions, said non-rotative inner peripheries of said pair of rotary means coacting with said non-circular cross section of said bolt to release the latter for movement from its locking position only when said pair of rotary means are respectively in their given positions.

3. In a latch assembly, a locking member having a locking position and a pair of rotary means surrounding and freely turnable with respect to said locking member and shaped for retaining the latter in said locking position thereof except when both of said rotary means are simultaneously in given angular positions, respectively, and mounting means for mounting said locking member for movement to and from said locking position thereof and for mounting said pair of rotary means for rotary movement with respect to said locking member, so that unless both of said rotary means are simultaneously in said given positions thereof, respectively, said locking member cannot be removed from said locking position thereof, a spring means coacting with said locking member for urging the latter away from said locking position thereof, said pair of rotary means retaining said locking member in said locking position in opposition to said spring means except when said pair of rotary means are in their given positions, respectively, whereupon said spring means automatically displaces said locking member partially from said locking position thereof.

4. In a latch assembly, a locking member having a locking position and a pair of rotary means surrounding and freely turnable with respect to said locking member and shaped for retaining the latter in said locking position thereof except when both of said rotary means are simultaneously in given angular positions, respectively, and mounting means for mounting said locking member for movement to and from said locking position thereof and for mounting said pair of rotary means for rotary movement with respect to said locking member, so that unless both of said rotary means are simultaneously in said given positions thereof, respectively, said locking member cannot be removed from said locking position thereof, said locking member being in the form of an elongated lock bolt supported by said mounting means for axial movement to and from said locking position, and an elongated lock stem portion of a latch bolt means formed with a transverse bore passing therethrough and receiving said lock bolt when the latter is in its locking position so as to prevent movement of said stem until said bolt is removed from said locking position thereof.

5. The combination of claim 4 and wherein said mounting means supports said stem for rotary movement.

6. The combination of claim 4 and wherein said mounting means mounts said stem for axial movement to and from a position where said transverse bore thereof will receive said bolt when the latter is displaced into its locking position.

7. A burglar-proof window assembly for cellars or the like, comprising a stationary frame and a window swingably connected to said stationary frame for movement to and from a closed position where portions of said window and frame, respectively, adjoin each other, an elongated lock bolt and a pair of rotary means surrounding said lock bolt and being freely turnable with respect thereto, a lock stem extending across both of said portions of said frame and window and formed with a transverse bore which receives said lock bolt when the latter is in a locking position, mounting means carried by one of said portions for mounting said lock bolt for movement to and from its locking position and said pair of rotary means for free rotary movement with respect thereto, said pair of rotary means retaining said lock bolt in its locking position until said pair of rotary means are both simultaneously in given angular positions with respect to said lock bolt, and keeper means carried by the other of said portions and receiving part of said stem when said bore thereof receives said lock bolt to prevent movement of said window from its closed position until after said pair of rotary means are respectively in their given positions thus releasing said bolt for movement from its locking position and displacing said bolt from said transverse bore of said stem so that the latter can be displaced from said keeper means to free said window for movement away from its closed position.

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