A. A. PAGE.

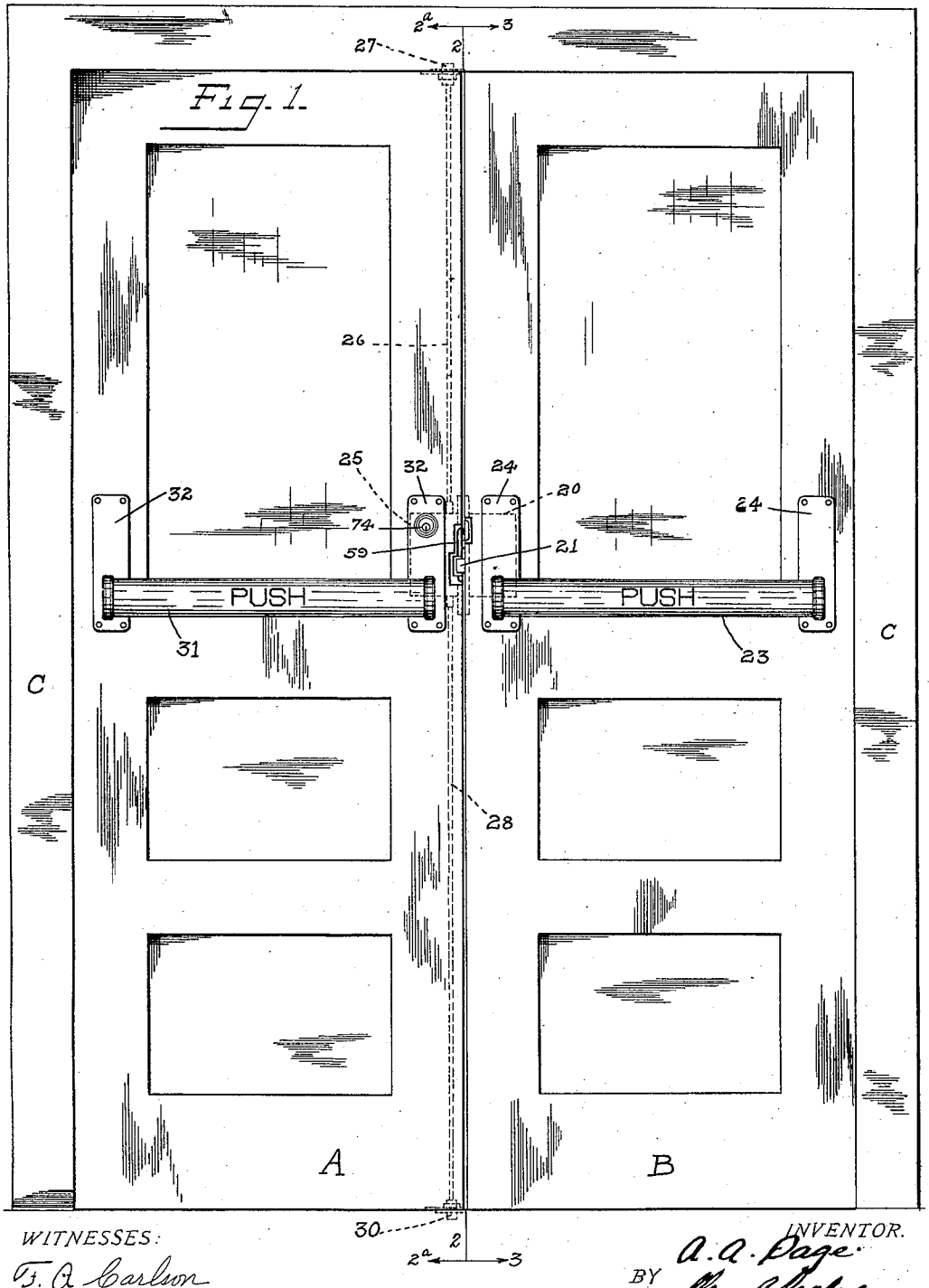
PANIC BOLT MECHANISM.

APPLICATION FILED APR. 8, 1916.

1,346,670.

Patented July 13, 1920.

4 SHEETS—SHEET 1.



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4 SHEETS—SHEET 2.

Fig. 2.

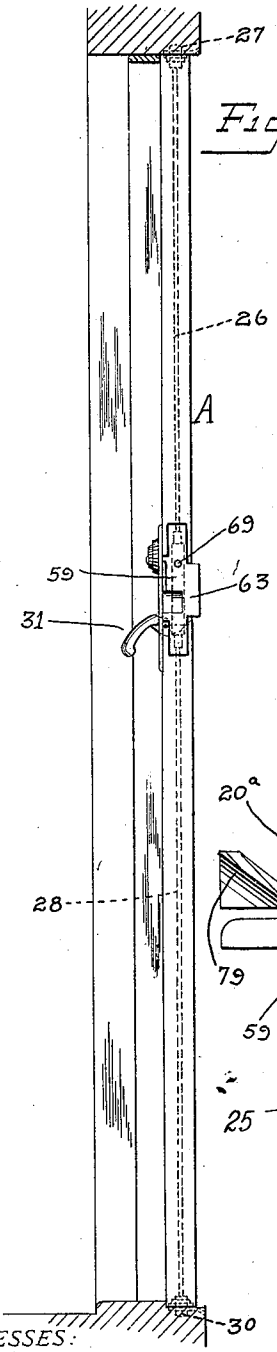


Fig. 3.

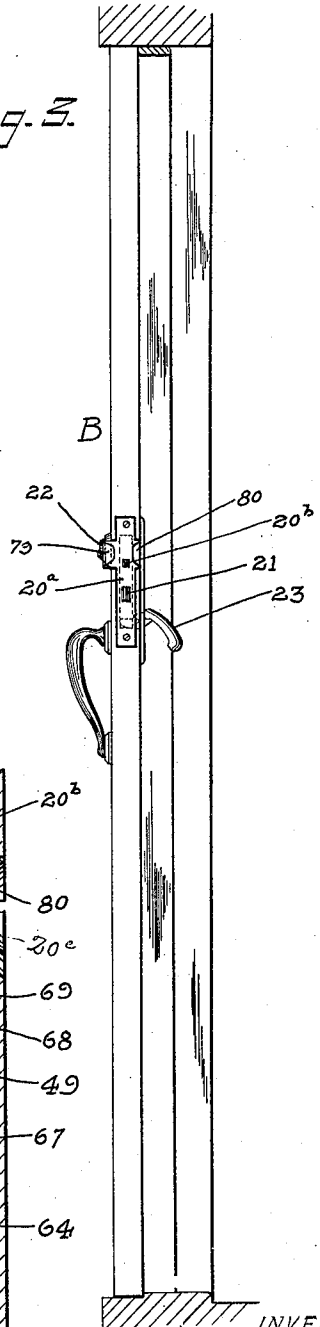
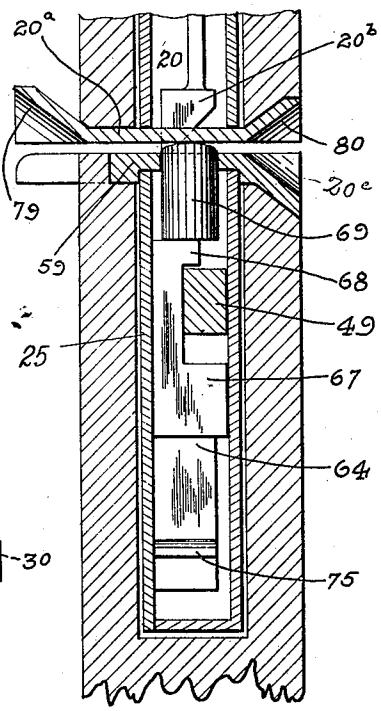


Fig. 9.



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4 SHEETS—SHEET 3.

Fig. 4.

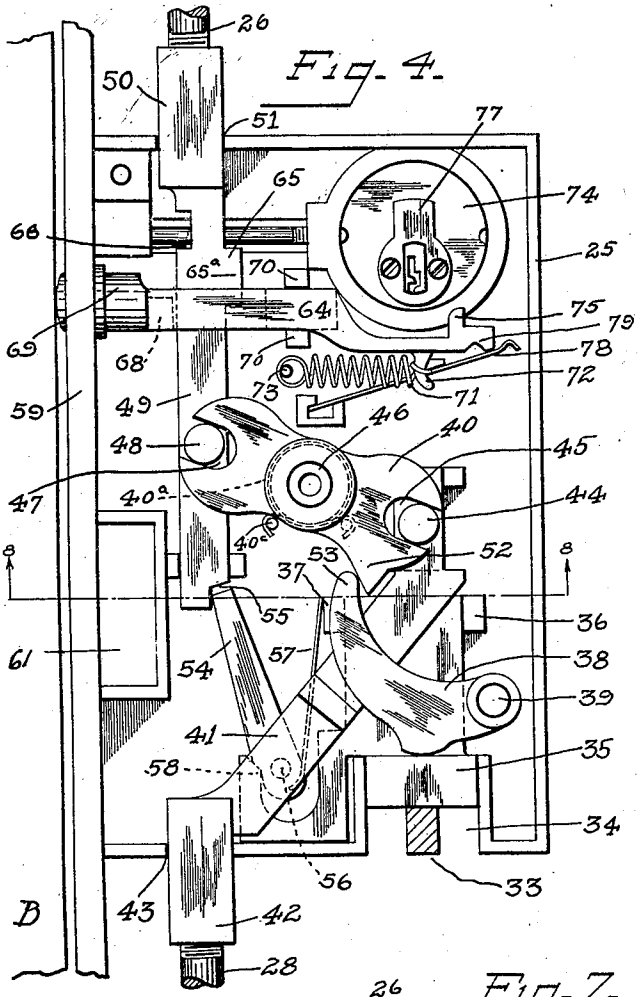


Fig. 8.

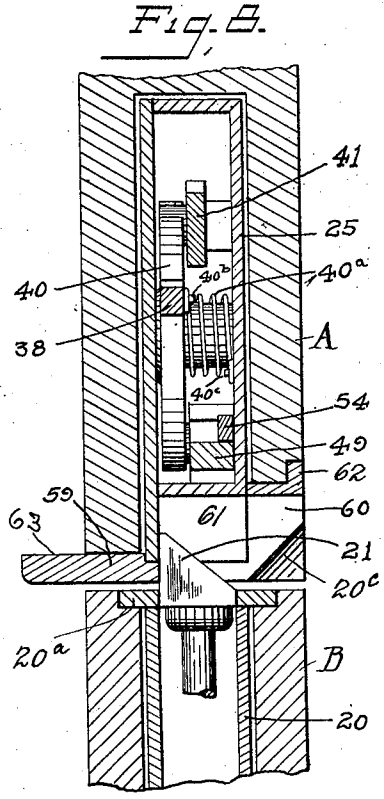
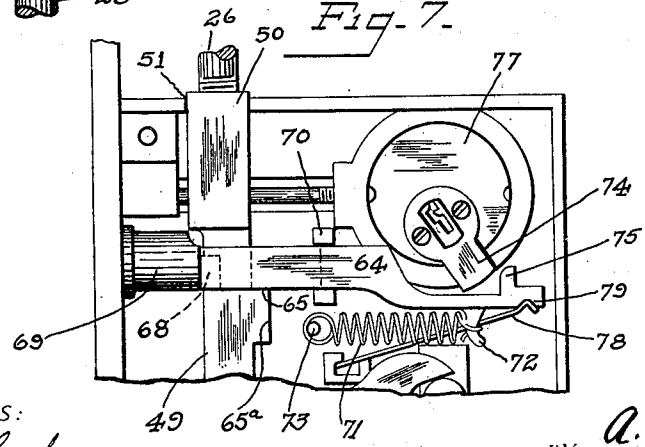


Fig. 7.



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4 SHEETS—SHEET 4.

Fig. 5.

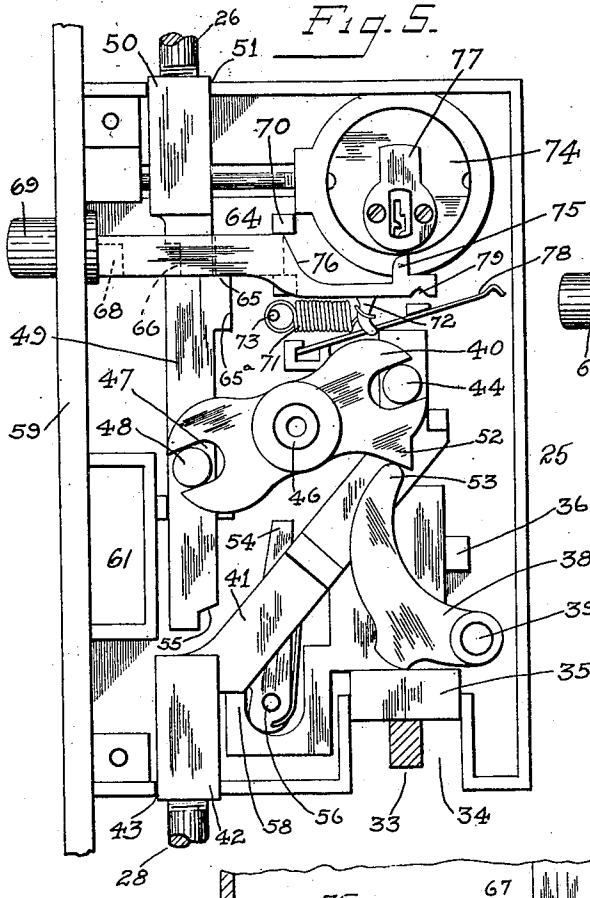


Fig. 10.

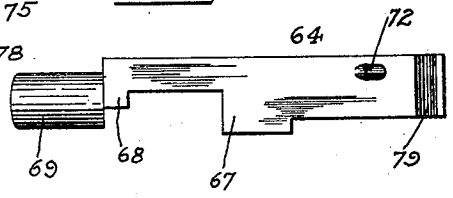


Fig. 11.

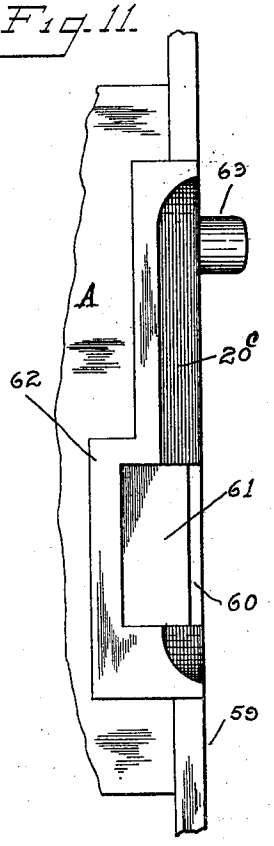
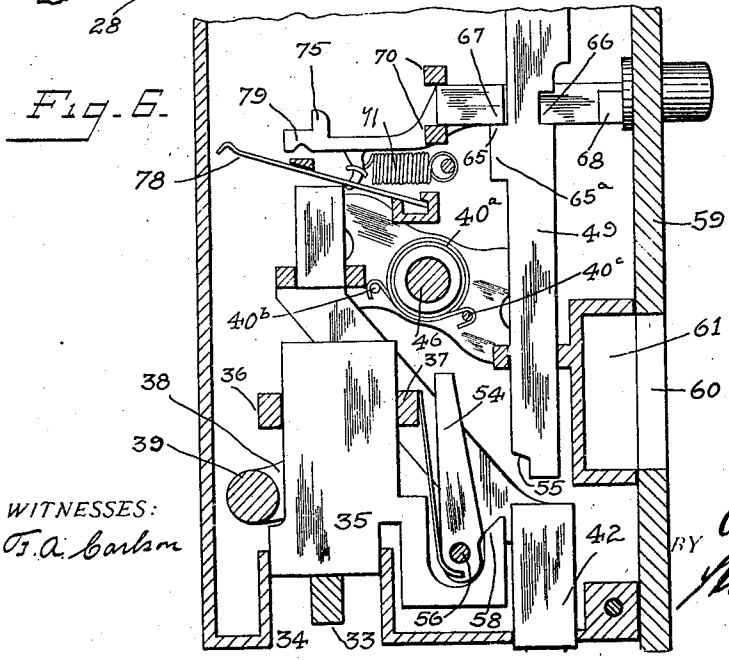


Fig. 6.



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UNITED STATES PATENT OFFICE.

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PANIC-BOLT MECHANISM.

1,346,670. Specification of Letters Patent. Patented July 13, 1920.

Application filed April 8, 1916. Serial No. 89,980.

To all whom it may concern:

Be it known that I, ALBERT A. PAGE, of East Haven, in the county of New Haven and State of Connecticut, have invented certain new and useful Improvements in Panic-Bolt Mechanism, of which the following is a full, clear, and exact description.

This invention relates to emergency exit locks or so-called panic bolts of the type which are applied to the doors of theaters, schoolhouses, department stores, and other buildings for facilitating exit when a panic occurs, for instance, in the case of fire.

The invention refers more particularly to panic bolt mechanism for double swinging doors, but in some aspects of the invention this is not an essential feature. The invention also has particular reference to a panic bolt provided with detent mechanism for holding the bolt or bolts in retracted position automatically on the opening of the door, but this feature is likewise unessential in some aspects of the invention.

One of the primary objects of the invention is the provision of a panic bolt mechanism embodying a lock case mortised in the door, bolts extending from said case to the top and bottom edges of the door, mechanism in the case actuated by a cross bar or the like, for retracting the bolts, and means in the case for holding the bolts retracted automatically on the opening of the door, said last-named means being adapted for actuation to release the bolts under certain conditions, as hereinafter described. By my improvements, the bolts are effectively locked in retracted position as the door is opened, so as to prevent their projecting ends from contacting with the threshold and linted respectively when the door is closed again, which is a very disadvantageous feature where the bolts are of the dead bolt rather than the latch variety and where the door is apt to be closed by careless or ignorant persons, or by a strong draft.

Another object of the invention is to provide a panic bolt mechanism in which the detent device for holding a bolt or bolts in retracted position automatically on the opening of the door, may be locked in its operative position by a key, so that the bolt or bolts may not be released thereafter except by a key in the hands of an authorized person.

I also propose to furnish a panic bolt mechanism in which the detent device for locking the bolts in retracted position can be actuated by hand if desired, so that in the case of a schoolhouse, for example, the janitor can dog the bolt or bolts in retracted position without the use of a key, although the bolt or bolts can not be released from the retracted position without using the key.

Another feature provided by my invention is a means for preventing the bolts from being released by an instrument inserted between the lintel and the door, or between the threshold and the door, for the purpose of exerting pressure on one of the bolt heads.

The invention also has in view the general improvement in the construction and operation of devices of the class to which the invention relates.

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

In the accompanying drawings,

Figure 1 is an inside elevation of a pair of double doors equipped with my improvements, showing said doors in the closed position;

Fig. 2 is a section on line 2—2 of Fig. 1, looking in the direction of the arrows 2^a;

Fig. 3 is a section on the same line, looking in the direction of the arrows 3;

Fig. 4 is an elevation of the mortise lock mechanism carried by the door shown in Fig. 2, with the cap plate of the lock removed, the bolts being in the protracted position;

Fig. 5 is an elevation of the same lock, with the cap plate removed, showing the bolt locked in the retracted position by the automatically operating detent mechanism;

Fig. 6 is a reverse view of the lock, with the parts in the positions shown in Fig. 5;

Fig. 7 is a fragmentary view of the lock, showing the detent or dogging slide moved into the bolt-locking position, into which it may be shifted by the key mechanism;

Fig. 8 is a horizontal section through portions of both doors, on a line corresponding to line 8—8 of Fig. 4, looking upward;

Fig. 9 is a horizontal section through portions of both doors taken through the upper parts of the locks on the respective doors and looking downward;

Fig. 10 is a detail of the detent or dogging slide; and

Fig. 11 is a fragmentary view of one of the lock fronts, as hereinafter described.

Referring to the drawings, I have shown my improvements applied to a pair of double swinging doors A, B mounted in a frame or casing C. As viewed in Fig. 1, the right-hand door B is provided with a mortise lock 20 having a latch bolt 21 adapted to take into a keeper at the free edge of the lefthand door A, as hereinafter described. The doors are arranged to swing outwardly of course, as is usual in emergency exit doors. While the particular construction of the mortise lock 20 is not material to the invention, I may state that I prefer to have it of the general type shown in my Patent No. 1,137,787, dated May 4, 1915, the latch bolt 21 being retractable from the outside of the door by a key adapted to a cylinder lock 22 (Fig. 3), and said latch bolt being retractable from the inside of the door by means of a push bar 23. This push bar is pivotally mounted behind suitable escutcheons 24 and has a part extending into the case of lock 20 for retracting the bolt in the usual manner when pressure is exerted on the push bar.

Referring now to the lefthand door A, this door is provided with vertically directed bolts extending along the free edge of the door and actuated by mechanism in a lock 25 mortised in the door A opposite the lock 20. A bolt rod 26 extends upwardly from the lock 25 in a suitable mortise at the front edge of the door, and carries a bolt head 27 adapted to coöperate with a keeper in the lintel of the door frame, and a similar bolt rod 28 extending downwardly from the lock 25 in a mortise in the edge of the door and carries at its lower end a bolt head 30 adapted to coöperate with a keeper in the threshold. Portions of the bolt rods 26, 28 are shown in full lines in Fig. 4, but I have not considered it necessary to illustrate these rods in detail, nor to present detail views of the bolt heads 27, 30, and their coöperating keepers, it being understood that these parts may be of the usual or any desired kind. The respective bolt members on the door A are adapted to be retracted from their operative positions by means of a push bar 31 similar to the push bar 23 and similarly mounted in escutcheons 32. It will be observed that the push bars and escutcheons on the respective doors may be of identical design and location so that the panic bolt mechanism as a whole may be given a very symmetrical appearance, as shown in Fig. 1.

Turning now to the mechanism for actuating the bolt rods 26, 28 from the push bar 31, the end portion of the push bar 31 which is adjacent the lock 25 is provided in the customary manner with a lifter member 33 extending into a recess 34 at the lower edge of the lock case and adapted to be raised when pressure is exerted on the push bar. This lifter member 33 is adapted to raise a slide 35 guided on the back of the lock case between lugs 36, 37. The slide 35 has a shoulder at its lower part which supports a lifting lever 38, pivoted in the case at 39, and adapted to actuate a walking beam 40 interconnecting the bolt members. The bolt rod 28 is screwed at its upper end into a bolt member 41 of irregular form, having a socket portion 42 which receives the bolt rod 28 and is guided vertically in a cut-away portion 43 in the lower wall of the lock case. The body portion of the bolt member 41 is inclined with respect to the socket portion 42, and in the form of a bar overlying a portion of the slide 35. At its upper end, the member 41 has a pin 44 above the slide but substantially in line therewith, and this pin 44 engages a notch 45 in one end of the walking beam member 40. This walking beam member 40 is swiveled to the case by means of a hub portion embracing a post 46 cast on the back of the case. At its opposite end, the walking beam member is provided with a notch 47 similar to the notch 45, which notch 47 receives a pin 48 on the lower portion of a bolt member 49. This bolt member 49 has a socket portion 50 into which the lower end of the upper bolt rod 26 is screwed, and which is slidable in a cut-away portion 51 in the top of the lock case. The body portion of the bolt member 49 is in line with the socket portion 50 and with the socket portion 42 of bolt member 41. The righthand end portion of the walking beam member or lever 40 (Fig. 4) is provided with a depending inclined portion 52, adapted to be engaged by the upwardly directed extremity 53 of the lifting lever 38 previously described in such a manner that the lever 38 may actuate the bolt members 41, 49 by turning the walking beam member 40 on its axis. As the lifter member 33 of the push bar is raised so as to elevate the slide 35, the lever 38 is turned on its pivot 39 so as to push upwardly the righthand end (Fig. 4) of the walking beam 40. Thus, the

walking beam member raises the bolt member 41 by virtue of the pin and slot connection 44, 45, while the bolt member 49 is depressed by virtue of its similar connection with the opposite end of the walking beam member. By this means the bolt rods are actuated in opposite directions by pressure on the push bar so that their bolt heads are withdrawn simultaneously from their keepers, thereby releasing the door. In the particular form shown, the upper and lower bolts are normally held in the protracted position partly by gravity acting on the lower bolt, and partly by a coiled spring 40^a acting on the walking beam 40 in such a manner as to normally hold it in the position shown in Fig. 4. This spring 40^a is connected at one end to the walking beam, as shown at 40^b, and at the opposite end to the lock case, as shown at 40^c. It will be understood, therefore, that under ordinary conditions, the bolts would only remain in the retracted position so long as pressure is exerted on the push bar, but in order to lock and hold the bolts in retracted position while the door is open, I employ the detent or dogging mechanism to be hereinafter described.

In order to dog the bolts against retraction by an instrument inserted between the door and the lintel, or between the door and the threshold, for the purpose of exerting pressure on one of the bolt heads, I provide means for dogging the bolts in their protracted position. In the particular form shown, I mount a guard or dogging lever 54 in the lower part of the lock case where it is adapted to be held in the path of the bolt member 49. In the particular example illustrated, the lower end of this bolt member 49 is provided with a notch 55 in which the dogging lever 54 is adapted to stand when the bolts are in their protracted position, so as to prevent the downward movement of the upper bolt. By dogging one bolt, the other bolt is naturally dogged by virtue of the walking beam connection between the bolts. The lever 54 is pivoted to the case at 56 and acted on by a spring 57 which normally holds it in the path of the bolt member 49, but in order to permit of the release of the bolts by the push bar, the lever 54 is shifted out of its blocking position when the push bar is actuated. To this end, the slide 35 may be provided with an extension 58 adapted to engage a portion of the lever 54 when said slide is raised so as to shift the dogging lever from the position shown in Fig. 4 to that shown in Fig. 5, and thereby permit the bolts to be withdrawn.

The lock 25 has a front or face plate 59 which is mortised in the free edge of the door A, and has a part serving as a strike or keeper for the latch bolt 21 on the door B. For this purpose, the front 59 is provided with an opening 60 to receive the latch bolt 21, the case of the lock 25 being cut away at 61 back of the strike opening. On the inside of the door, a portion 62 of the front 59 extends laterally over a portion of the lock case flush with the inner surface of the door, said portion 62 being set back from the edge of the door so as to leave the strike opening 61 open at the inner side. On the other or outer side of the lock front 59, the same is provided with a laterally projecting lip 63, a portion of which is in line with the keeper opening 60, said lip 63 being similar to the lip of an ordinary strike plate. Thus, when the lefthand door A is closed, the righthand door B being open, the latter door may be readily closed, the latch bolt 21 striking the lip 63 and being pressed inward thereby and thereafter springing out into the keeper opening 60 as the door B reaches its fully closed position. It will be apparent that if, under these circumstances, the door B be locked by means of its upper and lower bolt members, neither door can be opened from the outside except by a person having a key adapted to the cylinder 22 for retracting the latch bolt 21. Supposing, on the other hand, that the door B is in the closed position, and that the door A is open, in closing the door A, its keeper opening 60 will fit over the latch bolt 21 without moving the same, and the doors can then be locked by the use of the vertical bolts, as hereinafter described.

Referring to the detent or dogging mechanism for the vertical bolts, the construction in the particular example shown is as follows: A dogging member 64 in the nature of a sliding bolt is guided horizontally in the upper portion of the lock 25 so as to cooperate with the bolt member 49. This bolt member 49 is of somewhat irregular shape, having a lateral projection or shoulder 65 at the side directed toward the hinged edge of the door. At the other side, *i. e.*, that which is disposed toward the free edge of the door, the member 49 is provided with a notch 66. The detent or dogging slide 64 is adapted to hold the bolts in retracted position by engaging the shoulder 65 or notch 66, for which purpose the dogging member is mounted so as to extend over the bolt 49 at right angles thereto, and is provided with a rearwardly extending shoulder 67 adapted to engage the shoulder 65, and with a projection or shoulder 68 adapted to fit within the notch 66. The shoulders or projections 67, 68 are spaced from each other so that they cannot engage the dogging member or slide at the same time. The dogging member is guided in the case for the necessary lateral movement by means of a button or head 69 on said member guided in an open-

ing in the face or front plate 59 and adapted to project to the outside of the lock. The dogging member is guided at its rear portion by lugs 70 on the back of the case. A spring 71, connecting a projection 72 on the dogging member with a small post 73 on the case, tends to hold the dogging member in a protracted position, as shown in Fig. 5, and when the bolts are retracted the spring 71 when free to act will pull the dogging slide into such a position that the shoulder 67 will overlie the shoulder 65, thereby dogging the upper bolt and the connected lower bolt in the retracted position. Normally the shoulder 67 of the dogging slide is held by the spring in contact with a surface 65[a] on the member 49 below the shoulder 65, but when the member 49 is drawn down to a predetermined extent, the spring 71 will project the shoulder 67 over the top of the shoulder 65, as shown in Fig. 5, whereby the slide 64 is caused to act as a detent for the bolts.

It is sometimes desirable to lock the bolts in the retracted position so that they cannot be released except by the actuation of suitable key mechanism, and in the form shown, the lock mechanism comprises a cylinder lock 74 adapted to draw the dogging member 64 back in the case and shift it to such a position that the shoulder 68 will engage the notch 66, for the purpose of dogging the bolts. In the form shown, the dogging member is provided with an upwardly projecting talon member 75, and with a talon surface 76, and a rollback or cam arm 77 on the cylinder lock is adapted to engage these parts for the purpose of retracting and releasing the dogging member. Supposing the parts to be in the position shown in Fig. 5, the dogging member may be retracted by the key mechanism to a position in which it will dog the bolt member 49 by turning the rollback or cam arm 77 in a counterclockwise direction so that it will engage the talon 75 and thereby move the dogging member to the dogging position shown in Fig. 7. It is understood, of course, that while this is being done the bolts should be held in the retracted position by pushing down on the push bar 31. As the dogging member reaches the limit of its rearward movement, a leaf spring 78 snaps into engagement with a recess 79 on the rear portion of the dogging member so as to hold it firmly in the retracted position. When the bolts have been dogged in this manner, the head 69 of the dogging member will be completely withdrawn within its guide opening in the face of the lock, and it will therefore be impossible to manipulate the dogging member by hand from the exterior of the lock in such a manner as to release the bolts. The bolts can, however, be readily released by the key, for which purpose the cam arm or rollback 77 is turned in a clockwise direction so as to engage the talon surface 76, thereby releasing the dogging member from engagement with the spring 78 and permitting it to be protracted by the spring 71. As the dogging member is thus released its shoulder 68 is disengaged from the notch 66 and the bolts are then shot by gravity acting on the lower bolt, and the spring 40[a] acting on the walking beam or connecting member 40.

It will be observed that the front or face plate 20[a] of the lock 20 on door B is provided at the outside with a beveled portion 79 (Fig. 9), and at the inside with a similar beveled portion 80, both of which beveled portions are in line with the projecting head or button 69 of the dogging slide. Thus, when the door A is in the closed position, and the door B is open, and thereupon the latter door is closed, the beveled portion or surface 80 will strike the projecting head of the dogging slide, and it will be forced back into the position shown in Fig. 9 by the face plate of the lock 20 when the door B is fully closed. In this position, the dogging slide is clear of the bolt member 49, and does not dog the same. Supposing, on the other hand, that the door B is in the closed position, and the door A is open, and thereupon the latter door is closed, the projecting end of the dogging slide will engage the beveled portion 79 of the face plate of lock 20, on the stationary door, and will thereby be forced back into the releasing position. It will be understood, therefore, that the dogging slide under the influence of its spring 71 will dog the bolts when they are retracted for opening the door on which said bolts are mounted, and that in closing the double doors the bolts are automatically released by the inward movement of the dogging slide which is incident to the closing of the doors. This same action takes place no matter which door is closed first, for if the door B is closed first, the face plate on its lock 20 acts in the nature of a fixed abutment which presses inward the dogging slide when the latter comes in contact therewith, while if the door A is closed first, the face plate on door B will actuate the dogging slide as the latter door is closed. In either case, the repression of the dogging member liberates the vertical bolts and causes both doors to be firmly locked, the door A being locked to the casing, and the door B being locked to the door A by the spring latch bolt 21. It will be seen, therefore, that my automatic detent mechanism locks the vertical bolts in retracted position every time their door is opened, and that while the release of said bolts does not follow as a necessary consequence of the closing of their particular door, it does follow when both doors are closed. This is a very desirable arrangement for double doors, because in many in-

stances it is not necessary or desirable to lock one of the doors in a closed position while the other remains open. In Fig. 9, the beveled bolt 20[b] is a bolt which controls the mechanism for dogging the bolt 21 automatically on the closing of the door. This mechanism forms no part of my invention, but it may be well to state that the lip 63 on the front 59 of lock 25 is extended upwardly to cooperate with this controller bolt, and that at the opposite side of the front 59, the same has a beveled surface 20[c] which will contact with the controller bolt and presses the same inward when the door A is closed after door B.

I have already explained how the vertical bolts on door A may be locked in the retracted position by a key. Thus, in the case of a schoolhouse, the janitor may lock the bolts so that the doors can be freely opened at all times merely by pushing on the same from the inside without the necessity of actuating the bolt mechanism. The bolts cannot be tripped, under these circumstances, except by the janitor or other authorized person having the proper key. In the particular form shown, the janitor may dog the bolts in the retracted position without using a key, although it will be necessary to use a key to trip the bolts. In order to do this, the janitor may push the dogging slide into its innermost position by pressing on the head thereof, with a pencil or other suitable implement, but as the dogging slide cannot be pulled outward again from the face of the lock, it will be necessary to release the dogging slide by means of the cam arm of the key mechanism, as previously described.

It is not necessary in all cases to use the vertical bolts on double doors, as the dogging slide is adapted to coöperate with a keeper on a fixed jamb. This will be readily apparent because in the particular form illustrated, the door B sometimes acts as a fixed abutment, and the repression of the dogging slide does not necessitate any movement of such door, as previously explained. It will be understood that the release of the bolts is effected automatically by the closing of the door or doors, and that nevertheless the automatic dogging and releasing mechanism can be actuated by a key in such a manner as to dog the bolts in retracted position until the key is again used for releasing them.

It will be seen that by my invention, I provide a detent or a dogging member for a bolt mechanism which is actuated to dog the bolts automatically on the opening of the door to which said bolts are applied by actuation of a push bar or the like, said detent or dogging member being then in a position in which it can be readily tripped; but that this same detent or dogging member is also adapted to dog the bolts when moved in an opposite direction by suitable key mechanism, which key mechanism will lock the bolts in retracted position so that they cannot be released except by using the proper key.

I have not attempted to illustrate or describe the various modifications of the construction which may be adopted without departing from the scope of the invention as defined in the claims.

What I claim is:

1. In a door lock, the combination of a bolt, automatic detent mechanism therefor, and key mechanism for locking said detent mechanism; substantially as described.

2. The combination with a door, of a bolt mortised therein and extending to one of the horizontal edges of the door, a manually operable retracting device for said bolt, means for dogging said bolt in retracted position automatically when it is retracted by said device, and key actuated means for locking said dogging means in a position to hold the bolt retracted; substantially as described.

3. In a lock, a case, a vertical bolt member therein, a horizontal dogging slide projecting through the face of the lock case, and adapted to dog said bolt in retracted position, and key mechanism for locking said slide in dogging position; substantially as described.

4. In a lock, a bolt, a dogging member therefor adapted to dog the bolt when said dogging member is moved in either direction, a spring for moving said dogging member in one direction, and key mechanism for moving said dogging member in the other direction; substantially as described.

5. In a lock, a bolt member, means for retracting said bolt member, a dogging member for said bolt member, a spring urging said dogging member into a dogging position with respect to said bolt member, and key mechanism for moving said dogging member in the opposite direction and into another dogging position with respect to said bolt member; substantially as described.

6. In door locking mechanism, the combination of a bolt, manual means for retracting the same, means for dogging said bolt in retracted position automatically on the opening of the door, comprising a slide movable outward at the free edge of the door to a predetermined projected position, said slide adapted to dog the bolt when the former is in said protracted position, said slide also adapted to dog the bolt when withdrawn into the case, and a key for withdrawing said slide within the case and locking it therein; substantially as described.

7. In panic bolt mechanism, the combination of a pair of bolt members, a walking

beam connecting said members for opposite movement, a pivoted lifter acting on said walking beam, a slide for operating said lifter, and a dogging device for one of said bolt members controlled by said slide; substantially as described.

8. In door locking mechanism, the combination of a door frame, a door hinged thereto, a bolt at one of the horizontal edges of the door for locking it to the frame, a pushbar at the inside of the door for retracting said bolt, means for dogging said bolt in the protracted position automatically when it is protracted, and means for releasing said dogging means automatically by said pushbar; substantially as described.

9. In door locking mechanism, the combination of a door frame, a door hinged thereto, a bolt at one of the horizontal edges of the door for locking it to the door frame, a case on the door, operating mechanism for said bolt in said case, a pushbar coöperating with the mechanism in said case for retracting the bolt, means in said case for dogging the bolt automatically in protracted position on its protraction, and means in said case operable by said pushbar for releasing said dogging means; substantially as described.

10. In door locking mechanism, a normally protracted bolt, manual retracting means for said bolt, means for automatically dogging said bolt in its retracted position when it has been retracted, means for releasing said dogging means, and key actuated means for rendering said releasing means inoperative to release said dogging means; substantially as described.

11. In door locking mechanism, a bolt, manually operable means for retracting the same from the inside of the door, means for automatically dogging said bolt in retracted position, means for releasing said dogging means, and key actuated means for locking said dogging means out of its automatic dogging position; substantially as described.

12. In door locking mechanism, a normally protracted bolt, manually operable means at the inside of the door for retracting said bolt, means for automatically dogging said bolt in retracted position when it is retracted by said manually operable means, means for releasing said dogging means automatically on the closing of the door, and cylinder lock mechanism for retaining said dogging means out of its automatic dogging position; substantially as described.

13. The combination with a door and door frame, of a bolt on the door at one of the horizontal edges thereof for locking it to the frame, a case on the door, operating mechanism for said bolt in said case, retracting means for the bolt coöperating with the mechanism in said case, means for automatically dogging said bolt in the retracted position when it is retracted, and means for locking the bolt in the retracted position; substantially as described.

14. The combination with a door and door frame, of a bolt on the door at one of the horizontal edges thereof for locking it to the frame, a case on the door, operating mechanism for said bolt in said case, retracting means for the bolt coöperating with the mechanism in said case, means for automatically dogging said bolt in the retracted position when it is retracted, and means for locking the bolt in the retracted position, said dogging means and said locking means both located in said case; substantially as described.

15. In a door locking mechanism, a sliding bolt having means for retracting the same, an automatic detent device for dogging said bolt in its retracted position, means for automatically operating said detent device as the door is closed to release said bolt, said detent device movable to a second position into dogging engagement with said bolt while the bolt is retracted, said detent device while in said second position being inaccessible to said means for automatically moving the detent device to its releasing position.

16. In a door locking mechanism, a bolt having means for retracting the same, a detent device for said bolt, said detent device provided with means to dog said bolt in its retracted position when the device is moved to either one of two positions, said device having a protruding end for releasing the same when in one position and a key-controlled device for releasing the same when in the other position.

17. In a door locking mechanism, a bolt having means for retracting the same, a detent device for said bolt, said detent device provided with means to dog said bolt in its retracted position when said detent is moved to either one of two positions, said device being releasable from one of said positions by a key only and from the other position without necessitating the use of a key.

18. In a lock, a bolt, a dogging means therefor movable relatively to said bolt, said dogging means provided with bolt engaging elements positioned to be brought into dogging engagement with said bolt, to retain the same in its retracted position upon the movement of said dogging member in either direction.

19. In a door lock, the combination of a bolt, detent mechanism for automatically dogging said bolt in its retracted position, and key actuated mechanism for moving said detent mechanism relative to said bolt into locked engagement therewith.

20. In a panic bolt mechanism, the combination of a pair of vertically sliding bolt members, a walking beam operatively con-

necting said members for opposite movement, a pivoted lifter acting on said walking beam, and a slide for operating said lifter; substantially as described.

21. In a panic bolt mechanism for double doors, a strike plate carried upon the forward edge of one of said doors, a lock case carried upon the other door, a bolt within said lock case, a dogging member for said bolt normally projecting through the face of said lock case into engagement with said strike plate, and inclined surfaces formed upon the opposite lateral edges of said strike plate whereby said surfaces will operate said dogging member to retract the same irrespective of the order in which the double doors are closed.

In witness whereof I have hereunto set my hand on the 6th day of April, 1916.

ALBERT A. PAGE.