Jan. 2, 1940. F. ADAM 2,185,175

JAIL LOCKING DEVICE AND THE LIKE

Filed Dec. 18, 1936 3 Sheets-Sheet 1

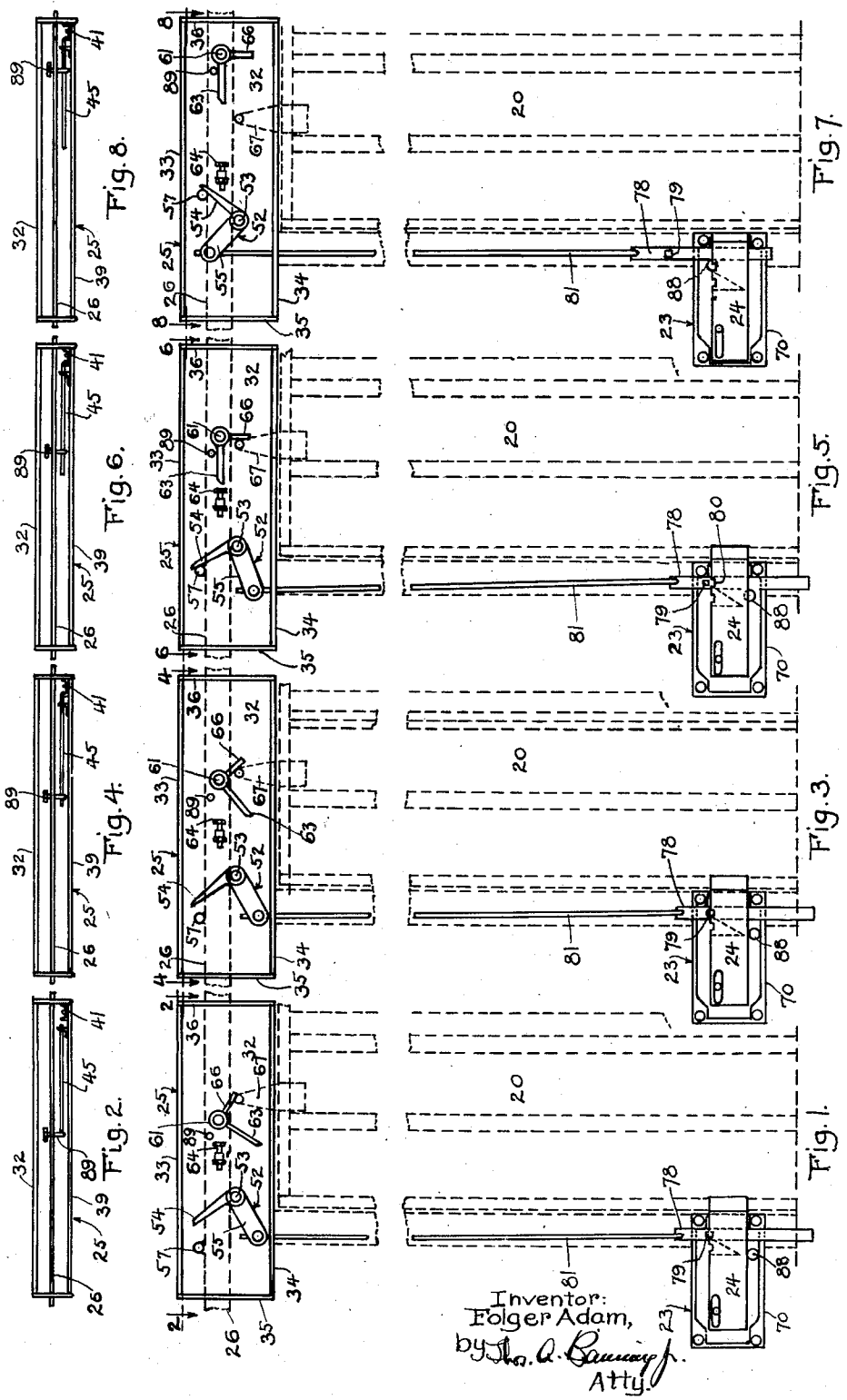


Fig. 1.

Fig. 2.

Fig. 3.

Fig. 4.

Fig. 5.

Fig. 6.

Fig. 7.

Fig. 8.

Inventor:
Folger Adam,
by H. A. Ramsey Jr.
Atty.

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JAIL LOCKING DEVICE AND THE LIKE

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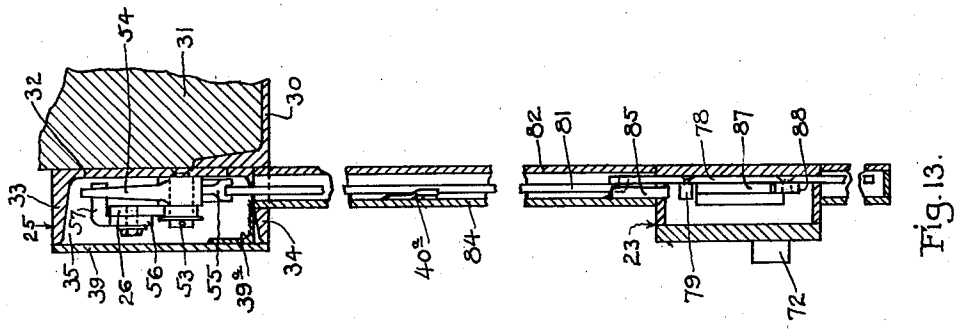


Fig. 13.

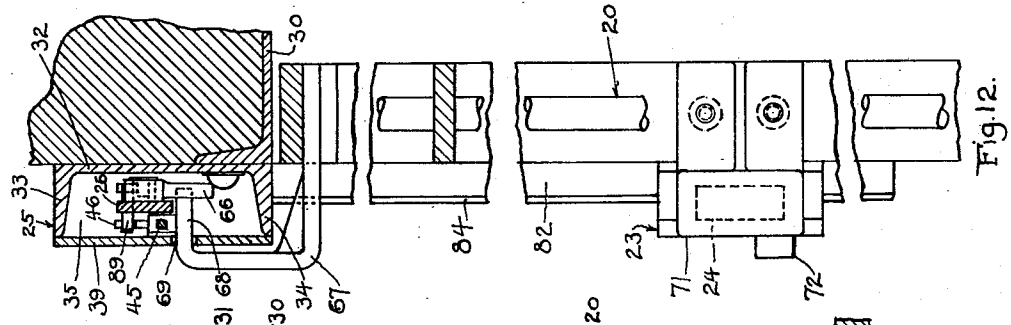


Fig. 12.

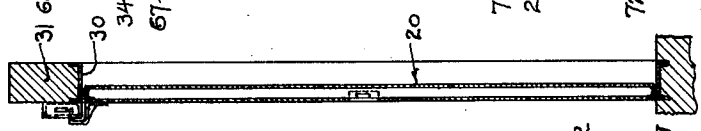


Fig. 11.

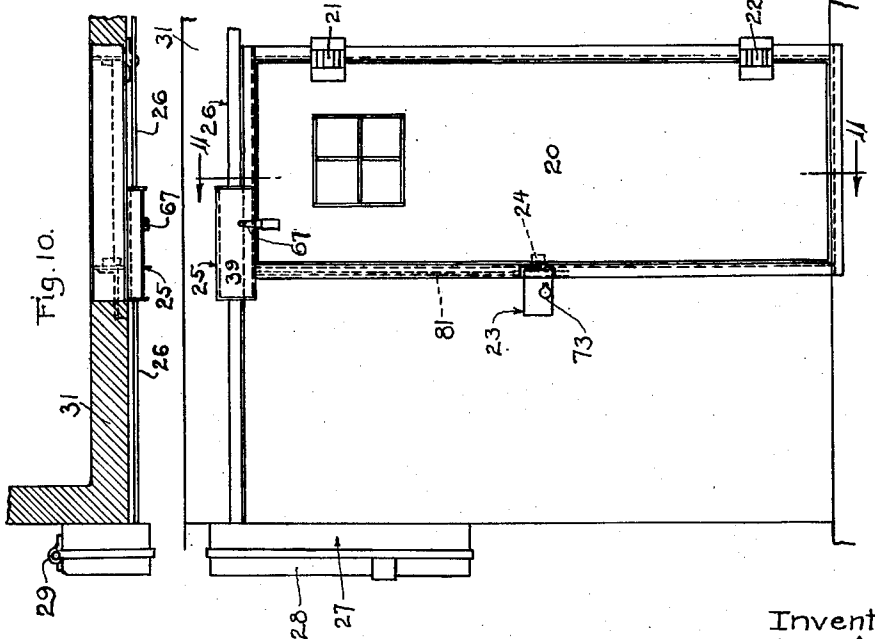


Fig. 10.

Fig. 9.

Inventor:
Folger Adam,
by Thos. A. Lewis Jr
Atty

Jan. 2, 1940. F. ADAM 2,185,175

JAIL LOCKING DEVICE AND THE LIKE

Filed Dec. 18, 1936 3 Sheets-Sheet 3

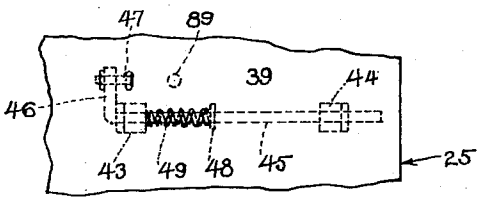


Fig. 16.

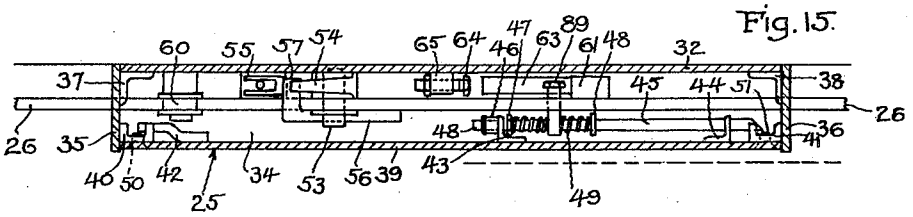


Fig. 15.

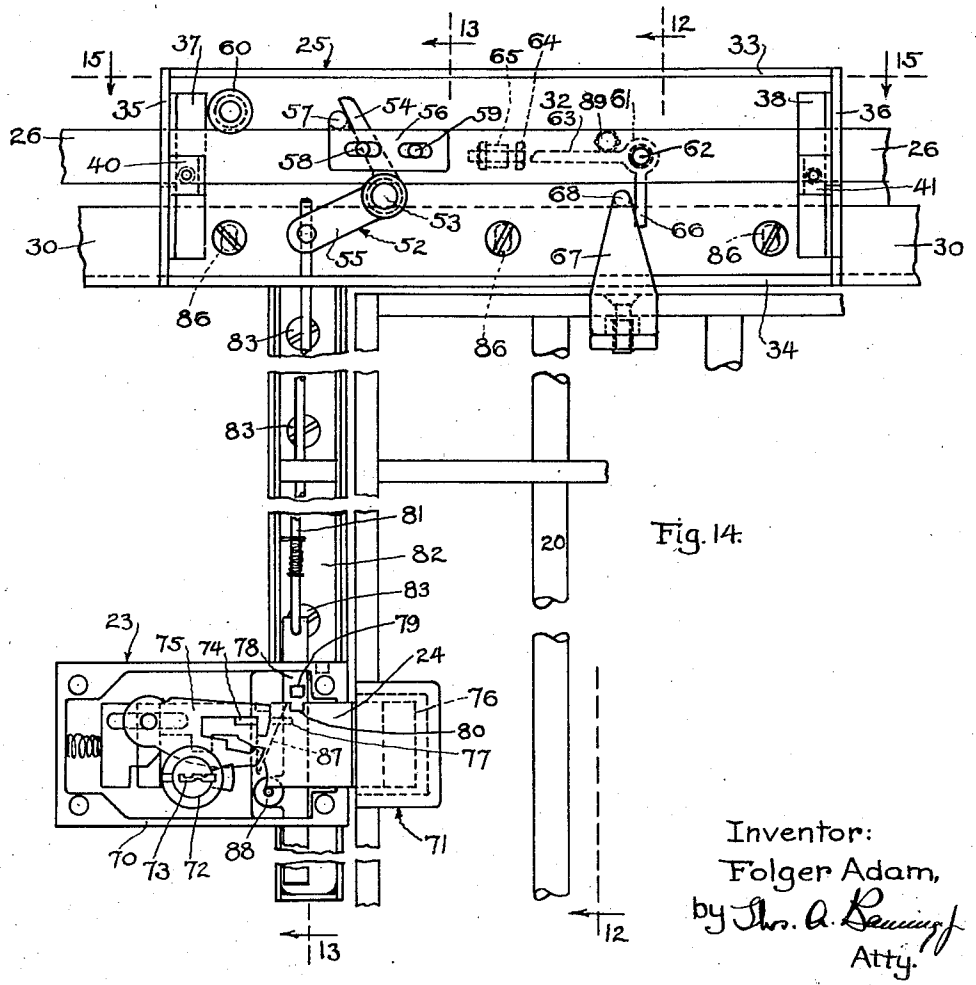


Fig. 14.

Inventor:
Folger Adam,
by Thos. A. Banning Jr.
Atty.

Patented Jan. 2, 1940

2,185,175

UNITED STATES PATENT OFFICE

2,185,175

JAIL LOCKING DEVICE AND THE LIKE

Folger Adam, Joliet, Ill.

Application December 18, 1936, Serial No. 116,530

7 Claims. (Cl. 70—263)

This invention concerns itself with improvements in jail locking devices and the like. The invention relates particularly to improvements intended for installations in jails and the like, but it will presently appear that the features of the invention may also be used in connection with locking device installations for asylums and other institutions where it is desired to ensure against escapes of the prisoners, as well as permitting various operations of locking and unlocking to be performed for the doors of the various cells or rooms.

Generally speaking the invention relates to improvements in locking devices for the doors wherein the doors are hinged to swing, as distinguished from those cell door arrangements in which the doors slide back and forth along a trackway. Furthermore, the features concern arrangements in which the various cell doors of a group or gang may be controlled in various groupings, and for various conditions of locking and unlocking, all as will be presently explained. In this connection it may be mentioned that the present arrangement is one in which the locking devices for the doors of a gang may be gang controlled from a gang station under control of the warden or his deputy; and an arrangement such that the locking devices may be placed in the "deadlocked" position, in which each cell lock is deadlocked so that it cannot be unlocked by a key inserted into the lock of such cell; or a "key" lock position, in which the lock of any individual cell door may be locked or unlocked by use of a key inserted into the lock of such cell, the locks of the other cells being left in their previous conditions; or an "open" position in which the locks of the cells are moved to the disengaged position so that the cell doors may be swung open without the need of key manipulations at the various cell doors; and a "front cover plate release" position, in which the various cell locks are retained in their deadlocked condition, but the front cover plates are released so that said plates may be removed for inspection or repair of the various locking devices which they protect and conceal.

Generally speaking, it may be stated that the construction herein disclosed is such that by movements of a single controlling and operating bar the locking devices are both controlled as to their conditions of locking or unlocking, and are also operated for unlocking operations under certain desired conditions. That is, a single bar serves both as a controlling and an operating bar for the locking devices.

Usually an installation of the swinging door type is one in which the actual movements of swinging the doors open or closed are performed by the prisoners in the several cells, the gang mechanism serving to take care of the locking devices only. In such an installation it is desirable to ensure proper closure of all the cell doors before the gang locking bar is moved to the locking position, as otherwise a prisoner or a number of prisoners might manage to hold their doors slightly ajar when the gang bar was moved to the locking position, thus preventing proper functioning of their respective door locking devices, and making escapes possible after the gang bar had been moved to the deadlocked position. One feature of the present invention is to make provision for preventing movement of the gang bar to the deadlocking position unless all of the doors of the gang of cells have been moved to the closed position wherein they will be properly locked when the gang bar is moved finally to its locking position. In case the door of any cell is not in its fully closed position the gang bar cannot be moved to the locking position, and the warden or deputy is thereby informed that one or more cells are not in the door closed condition.

Another feature of the invention relates to the provision of an arrangement such that when the gang bar is moved to the key position, the bolt of any one or more door locks may be key moved to a deadlocked position wherein the same is isolated from the gang bar operations, so that movements of the gang bar under such condition will not serve to operate such lock bolt, but such lock bolt will remain in the projected locked position, with such cell door locked and isolated from the opened or unlocked doors. This makes it possible to treat any given cell door individually, so that the various prisoners may be given individual treatment when necessary.

Another feature of the invention relates to the provision of an arrangement such that when the gang bar is located or placed in the key position, the door of any given cell or cells may be "snapped" shut, the lock bolts of such doors snapping to locking position as their several doors are shut. By this arrangement, when the gang bar is placed in the key position, the various cell doors will lock as they are shut individually.

Another feature of the invention is to provide an arrangement of very simple but sturdy construction; an arrangement such that a minimum number of parts are used, of simple form, and so related that they will not readily get out of order; an arrangement such that when the cell doors

are closed the possibility of tampering by the prisoners is reduced to a minimum; and an arrangement such that in case of damage to any individual cell lock the improper functioning or lack of functioning of the same will not interfere with the proper functioning of the remaining cell door locks and parts. It is also an object to make provision for proper adjustments during installation, so that when the locking devices and controls for a gang of considerable length are installed, the parts will be brought into proper operative relationship, notwithstanding material errors of positioning of the various cell frames and parts, measured from the gang operating box wherein the gang levers, etc., are placed.

Other objects and uses of the invention will appear from a detailed description of the same, which consists in the features of construction, and combinations of parts hereinafter described and claimed.

In the drawings:

Figure 1 shows in diagrammatic form the principal operating parts for the cell locking and controlling devices of a single cell with the gang bar moved to the "front cover plate release position", the cell lock being in locked condition;

Figure 2 shows a horizontal section on the line 2—2 of Figure 1 looking in the direction of the arrows;

Figure 3 shows a view similar to that of Figure 1, but with the parts in the "deadlocked position", the gang bar being moved over to the right to such position from the position of Figure 1;

Figure 4 shows a horizontal section on the line 4—4 of Figure 3 looking in the direction of the arrows;

Figure 5 shows a view similar to those of Figures 1 and 3, but with the parts in the "key position", the gang bar being moved still further to the right to such position from the positions of Figures 1 and 3;

Figure 6 shows a horizontal section on the line 6—6 of Figure 5 looking in the direction of the arrows;

Figure 7 shows a view similar to those of Figures 1, 3 and 5, but with the parts in the "open position", the gang bar being moved still further to the right to such position from the positions of Figures 1, 3 and 5;

Figure 8 shows a horizontal section on the line 8—8 of Figure 7 looking in the direction of the arrows;

Figure 9 shows a face view or elevation of the end cell door of a gang of cells, the same being in closed position, and having a solid plate panel instead of being barred, and this figure also shows the gang control box at the end of the gang cells;

Figure 10 shows a plan view corresponding to Figure 9;

Figure 11 shows a vertical section on the line 11—11 of Figure 9 looking in the direction of the arrows;

Figure 12 shows a vertical section on the line 12—12 of Figure 14, looking in the direction of the arrows;

Figure 13 shows a vertical section on the line 13—13 of Figure 14, looking in the direction of the arrows;

Figure 14 shows an enlarged face view of the principal operating parts of the installation for a single cell door, the cover plates being removed to show the interior constructions, and parts being broken away to reduce the size of the figure;

Figure 15 shows a horizontal section on the line 15—15 of Figure 14, looking in the direction of the arrows; and

Figure 16 shows a fragmentary face view of the mechanism box, showing especially the cover plate locking device.

Referring first to Figure 9, I have therein shown the cell door 20 for the end cell of a gang, as being typical of the doors of all of the cells of such gang. This door is hinged at 21 and 22 in the well understood manner. Mounted on the door opening frame is the locking device 23, the details of which will be disclosed hereinafter; but it may be here stated that this locking device includes the bolt 24 which may engage the door or a suitable fixture thereon to lock the door shut. This bolt may be retracted or withdrawn to unlock the door.

Mounted on the door frame above the door opening is the mechanism box 25; and the horizontally movable master or gang bar 26 enters such box, so that when such bar is moved back and forth horizontally it will properly control and operate the locking devices. This gang or master bar extends through the various mechanism boxes of the cell doors, from the position of the control box 27 at the gang control position, to the most remote cell of the gang. This control box is provided with the usual cover 28, which may be hinged as shown at 29 in the usual manner.

Referring now to Figures 12 to 16 inclusive, I have therein shown more in detail the principal parts of the locking and control devices for a typical cell installation; and it may be noted that in so doing I have shown the same as used in connection with a cell door provided with bars instead of a solid plate, as previously shown in Figures 9, 10 and 11. The door frame conveniently includes the channel member 30 which is built into the concrete or masonry structure 31 (see Figures 9 to 13 inclusive), but I do not intend to limit the features of my present invention to such construction.

The mechanism box 25 is made of a channel member 32, the flanges 33 and 34 of which constitute the top and bottom of the box when installed, and the ends of the box are formed by the sections or plates 35 and 36 secured to the channel of the box by the angle members 37 and 38. The cover 39 of this box is in the form of a plate of proper size, and the fixtures 40 and 41 are secured to the ends 35 and 36 of the box, as by welding. Secured to the inner face of the cover 39 at one end is the hook or finger 42 which may be engaged behind the fixture 40 when the cover is properly set into place. Also secured to the inner face of the cover are the angles 43 and 44, and the lock bar 45 is slidably extended through the flanges of these angles, so that said bar may be moved back and forth. One end of this lock bar is adapted to engage behind the fixture 41 when the cover is set into place, and the other or inner end of this lock bar is provided with the upwardly extending finger 46 (see Figure 16), which finger carries the adjustable pin or screw 47. The bar 45 also carries the washer or plate 48, and the spring 49 is set between the plate 48 and the angle 43 so that said spring tends to move the bar 45 to right or cover locking position. The right hand end of the locking bar 45 is beveled so that when the finger or pin 42 has been set behind the fixture 40 at the left hand end of the box, the cover may then be forced back at its right hand end and the pin 45 will snap behind the fixture 41 to lock the cover in

place. If desired, screws 50 and 51 may also be provided for securing the cover in place.

It was mentioned that the master or gang bar 26 extends horizontally through the mechanism box. For this purpose said bar passes through suitable openings in the ends 35 and 36 of the box. There is a bell crank 52 pivotally mounted on the back wall or channel 32 of the box, so that said bell crank may swing on the pivot 53. One arm 54 of this bell crank reaches up behind the master bar 26, and the other arm 55 thereof swings behind the master bar and through the horizontal position. Secured to the master bar within the mechanism box for each cell door is a plate 56, and said plate carries the backwardly reaching pin 57 which extends into the path of the arm 54 of the bell crank so that as the master or gang bar moves back and forth the bell crank will be rocked accordingly. The plate 56 is secured to the gang bar by screws extending through the slotted openings 58 and 59, so that the exact position of the plate 56 may be adjusted to ensure proper operations of the locking devices of the cell in question, and to compensate for inaccuracies in the setting of the cell frame, etc. Preferably the gang or master bar is guided in its movements by the grooved roller within the mechanism box and close to the plate 56, so as to ensure more accurate operations.

The gang or master bar carries a bell crank 61 which is pivoted to the bar at the point 62, and swings adjacent to the back face of the bar. The arm 63 of this bell crank may stand in the horizontal position of Figure 14 wherein, when the master or gang bar is moved to the left said arm will engage with the stop pin 64 which is adjustably mounted in the lug 65 on the back of the mechanism box. Under such condition the left hand movement of the master or gang bar will be interrupted, and further left hand movement thereof prevented. On the other hand, by swinging the bell crank 61 counterclockwise, the arm 63 will be moved down low enough so that as the gang or master bar moves to the left said arm will not strike the pin 64, and the left hand movement of the bar may be continued without interruption. The bell crank 61 includes the vertical arm 66 which may be engaged by a suitable part of the cell door when said door is closed, so that under such condition the bell crank will be swung counter-clockwise as the left hand movement of the gang bar is performed, thereby ensuring and permitting continued movement of the gang or master bar without interruption. Said vertical arm 66 is heavy enough to normally hold the bell-crank in the position shown in Figure 14. For this purpose the cell door carries a bracket 67 having at its upper end the inwardly reaching finger 68, and the cover 39 of the mechanism box is provided with a suitable opening 69 through which said finger will extend when the cell door is fully closed. Thereupon this finger will stand in position to be engaged by the leftwardly moving bell crank arm 66 as the master bar travels towards the left, and said bell crank will swing as it travels so that its arm 63 will not engage the stop 64, but the bar will be allowed to continue its travel. On the other hand, in case the cell door should not be fully closed, its finger 68 would not be projected far enough into the mechanism box to properly interfere with the bell crank arm 66, and the bell crank would not be rocked, but its arm 63 would stand in the line of the stop pin 64, so that further leftward movement of the bar would be prevented. Such fact would at once be apparent to the warden or deputy, trying to move the master bar from the control station or box 27, and he would at once investigate to locate the unclosed door. Failure to close any door of the gang would have the above effect, so that complete control of this feature is thus provided.

It is to be noted that the stop pin 64 may be adjusted in the bracket 65 so that proper operation will be ensured irrespective of maladjustments of the setting of the parts in the first instance.

Referring now to the locking device 23, I will explain tne construction and mode of operation of the same in detail; This lock includes the housing or box 70 which is suitably secured to the door frame or other part. The bolt 24 is slidably extended through said box, and when projected reaches over into the path of the edge portion of the door. The door carries the lock strike 71 which engages the beveled end portion of the bolt when the door is closed while the bolt is in projected condition.

The lock includes the usual cylinder 72 to receive the key in the opening 73. The bolt 24 is provided with the lug 74 in position to be engaged by the tumblers 75 under certain conditions. The bolt 24 may be moved back to the left from the position of Figure 14 against its spring, and without the need of key operation, so that under such conditions it may operate as a spring lock. This bolt may, however, be projected by a special movement to the right into the dotted line position 76 (see Figure 14), wherein the lug 74 will be in the dotted line position 77 at the right hand of the lock tumblers 75. This special movement of the bolt may be accomplished by turning the lock cylinder a full turn over to the right. The lock strike 71 is made of proper size to acccommodate the bolt when thus fully thrown to the right.

There is a vertically movable dead lock bar 78 extending vertically through the lock box 70 behind the bolt 24. This bar 78 carries the pin 79, so that when the bar is lowered from the position of Figure 14, said pin 79 may enter into the notch 80 on the upper edge of the bolt, and cause a "dead locking" condition to be created. Therefore, when the bar 78 is lowered sufficiently to engage the pin 79 with the notch 80 the bar or bolt of the lock cannot be moved by insertion of a key into the cylinder 72, but the cell door will be deadlocked until the bar 78 is again raised by proper extraneous manipulation thereof.

The bar 78 is connected to the arm 55 of the bell crank 52 in the mechanism box by means of the rod 81. This rod reaches vertically through the vertical housing including the channel 82. This channel reaches down from the mechanism box to the lock box, and is suitably secured to the permanent structure by screws 83. This vertical housing is provided with the removable cover plate 84, the lower end of which carries the hook 85 secured to its inner face and adapted to enter into a socket or recess in the top of the lock box. The mechanism box cover 39 has the short angle bracket 39a which, when the cover plate is set into position will overlie the upper end of the cover plate 84. Therefore, when the mechanism box cover 39 is set into place the angle section 39a will lock the cover plate 84 against any upward movement so that the same is locked in place. Conversely, by first removing the cover 39 from the mechanism box, the cover 84 may then be raised and unhooked at its lower end and

then completely removed. One or more supplemental clips 40a may be provided in the cover plate 84 for additionally securing the same, if desired. In this connection, it is noted from examination of Figure 14 that the mechanism box may be adjusted up and down with respect to the permanent structure by provision of the slotted openings 86, through which the securing screws for the mechanism box are extended.

It will now be seen that as the gang or master bar 26 is moved back and forth the rod 81 will be moved up and down to carry the pin 79 also up and down. Thus the movements of this deadlocking pin are controlled by the back and forth movements of this gang or master bar. It should also be noted that movements of the gang or master bar to the left will permit the deadlocking bar 78 to move down until the pin 79 engages either the upper edge of the bolt 24, or the notch therein, or any suitable projection extending upwards from the lock bolt 24, but further left-hand movement of the gang or master bar may be accomplished due to the fact that the plate 56 with its pin 68 will draw away from the bell crank arm 54. Right hand movements of the gang or master bar will cause the dead lock bar 78 to rise as soon as the pin 68 engages the arm 54.

On the back face of the bolt 24 there is secured the cam or wedge shaped plate 87; and the dead lock bar 78 carries the roller 88 in position to engage the wedge face or edge of this plate. When the dead lock bar is raised from the position of Figure 14 the roller 88 will engage the wedge face or edge and force the lock bolt to the left, thereby unlocking the door. This plate 87 is of such size, that when the lock bolt is moved to the right the extra or special distance shown by the dotted lines 76 (see Figure 14), the roller 88 will, under such conditions, pass to the left hand edge of the plate 87 when the dead lock bar is raised, thus making it possible, when the lock bolt is moved the special or extra distance to the right to move the dead lock bar up and down without operation of the lock bolt. In other words, under these conditions, the movements of the bar 78 up and down will not lock and unlock the door, but will allow it to remain in the deadlocked or isolated condition in which it has been placed by such special right hand movement of the lock bolt.

I shall now explain more in detail the various operations and movements which may be performed by the structures heretofore disclosed herein. For this purpose reference may be had to Figures 1 to 8 inclusive which show diagrammatically the various positions of the principal operative parts. I will mention that there is a pin 89 carried by the master or gang bar within the mechanism box, said pin extending backwardly to a position where it will limit the clockwise rotation of the bell crank 61 so that the arm 63 thereof normally stands in line with the stop 64 as shown in Figure 14, and for this purpose there may be provided a spring normally holding the bell crank in the position of Figure 14. The pin 89 also extends forwardly from the master or gang bar into line with the pin 47 on the cover plate lock bar 45 as shown in Figure 16.

Referring now to Figures 1 to 8 inclusive, the position of Figures 3 and 4 may be termed the normal "deadlocked" position. Assuming that the door is fully closed so that the pin 68 extends through the mechanism box cover plate into line with the bell crank arm 66, the bell crank 61 has been tilted as shown in Figure 3, and the arm 63 thereof has not struck the pin 64, so that the master or gang bar may be moved still further to the left. Such further leftward movement to the position of Figures 1 and 2 will cause the pin 89 to engage the pin 47 (see Figure 16), and slight further movement of the bar to the left will carry the locking bar 45 to the disengaging position so that the mechanism box cover plate may be removed. This is the condition illustrated in Figures 1 and 2.

Referring again to Figures 3 and 4, it will be noted that in such position the bell crank 61 has tilted to a position to allow the deadlock bar 78 to move down low enough to engage the dead lock pin 79 with the notch 80 of the lock bolt 24 (see Figure 14). In this position the lock bolt cannot be withdrawn to the left by key operation, due to the engagement of the pin 79 with the notch 80, so that the cell lock is deadlocked against key operation. The lock bolt is therefore held against leftward movement both by the lock mechanism itself, and also by the engagement of the pin 79 with the notch 80.

By shifting the master or gang bar 26 still further to the right to the position of Figures 5 and 6 the pin 57 of the plate 56 has engaged with the arm 54 of the bell crank 52, and has rocked the same sufficiently to raise the rod 81 and deadlock bar 78 to carry the pin 79 out of the notch 80 of the lock bolt, so that said lock bolt is no longer held in dead locked condition, but may be drawn to the left by key operation, to unlock the cell door by said key operation. In this position of the parts, all of the cell doors may be retained in the key locked position, and no cell door may be released or unlocked except by application of the key to its lock cylinder. Also, in this condition of the parts, any cell door may be latched in locked condition by merely slamming it shut, due to the spring nature of the lock bolt movement.

Further movement of the master or gang bar to the right from the position of Figures 5 and 6 to that of Figures 7 and 8, will rock the bell crank 52 still further so that the rod 81 and dead lock bar 78 will be raised still further. This movement will cause the roller 88 to ride against the cam face of the plate 87 secured to the lock bolt, thereby forcing the lock bolt to the left and unlocking the door by disengagement of the lock bolt from the lock strike 71. Therefore this position of the master or gang bar ensures complete unlocking of the cell doors without key operations.

It was stated that by a complete turn of the lock cylinder over to the right, the lock bolt 24 may be projected an extra distance to the right into the dotted line position of Figure 14, as shown at 76. When in this position the wedge shaped plate 87 has moved far enough to the right to carry its back face to the right of the vertical travel of the roller 88. Therefore under these conditions the raising of the deadlock bar 78 from the position of Figures 5 and 6 to that of Figures 7 and 8 will not act on the lock bolt, that is, will not move the lock bolt to the left or unlocking position, but on the contrary, the lock bolt will be left in the projected or locked condition, so that the cell door will not be unlocked even by complete traverse of the master or gang bar. Under such conditions, therefore, it is possible to unlock the other cell doors, either by key or gang operations, leaving the door of the cell in question still locked. This makes it possible to isolate selected prisoners, leaving them locked in their cells, as for example when they are being

subjected to special punishment or other treatment.

It is to be noted that no special form of mechanism is needed for moving the master or gang bar back and forth, and therefore I have not herein made particular disclosure of the construction of the devices contained within the control box 27.

While I have herein shown and described only a single form of structures and devices still I do not intend to limit myself thereto, except as I may do so in the claims to follow.

I claim:

1. In a jail locking mechanism or the like, the combination with a series of swinging doors, of locking means for each door, including a bolt movable across the edge portion of the door for locking purposes, spring means tending to move each bolt into locking position, key operated means to withdraw each bolt against the force of its spring, and also operable at times to throw the bolt into a second locking position, a wedge plate connected to each lock bolt, and having a cam face extending from bottom to top thereof, a vertically movable dead lock bar located in proximity to each lock bolt and the wedge plate thereof, and having a part adapted to engage the cam face when the dead lock bar is moved upwards with the key lock mechanism in normal position, there being a notch in each lock bolt, and a locking pin on each dead lock bar in position to engage the corresponding bolt notch when the dead lock bar is lowered, together with means to move all of the dead lock bars vertically in unison, substantially as described.

2. In a jail locking mechanism or the like, the combination with a series of swinging doors, of locking means for each door, including a bolt movable across the edge portion of the door for locking purposes, key operated means to withdraw each bolt from its locking position, and also operable at times to move each bolt into a second locking position, a wedge plate connected to each lock bolt, and having a cam face extending from bottom to top thereof, a vertically movable dead lock bar located in proximity to each lock bolt and the wedge plate thereof and having a part adapted to engage the cam face when the dead lock bar is moved upwards with the key lock mechanism in normal position, said part being adapted to pass to the opposite face of the wedge plate when the key lock mechanism is in the second locking position aforesaid, together with means to move all of the deal lock bars vertically in unison, substantially as described.

3. In a jail locking mechanism or the like, the combination with a series of swinging doors, of locking means for each door, including a bolt movable across the edge portion of the door for locking purposes, key operated means to withdraw each lock bolt for unlocking purposes, and also having means to move the lock bolt outwardly to a second extended locking position, vertically movable means adjacent to each lock bolt, interengaging means on each lock bolt and the adjacent vertically movable means aforesaid adapted to withdraw the lock bolt into unlocking position when said means is moved upwardly, and adapted to move upwardly free of the lock bolt when the key operated means is in the second extended locking position, together with means to move all of the vertically movable means in unison, substantially as described.

4. In a jail locking mechanism or the like, the combination with a series of doors, of locking means for each door, including a lock bolt adapted to be projected outwardly into door engaging position, key operated means to withdraw each lock bolt into unlocking position, and also adapted to project the lock bolt outwardly into a second extended locking position, vertically movable means adjacent to each lock bolt, interengaging means on each said vertically movable means and the adjacent lock bolt, adapted to withdraw the lock bolt into unlocking position when said means is moved vertically, and adapted to move vertically without interengagement with the lock bolt when the latter is in the second extended locking position, together with means to move all of the vertically movable means simultaneously, substantially as described.

5. In a jail locking mechanism or the like, the combination with a series of doors, of locking means for each door including a lock bolt movable into door engaging position, and also into unlocking position, key operated means for each lock bolt adapted to withdraw said bolt into unlocking position, and also adapted to move the bolt into a second extended locking position, an engaging part on each bolt; means movable in a path to engage each said lock bolt part when the bolt is in normal position, said part being out of the path of said movable means when said bolt is in the second extended locking position, said bolt engaging means being adapted to withdraw the bolt when said means is moved during engagement with the bolt as aforesaid, together with means to move all said bolt engaging means simultaneously, substantially as described.

6. In a jail locking mechanism or the like, the combination with a series of doors, of means to lock each door including a lock bolt movable into door engaging position, key operated means to withdraw the bolt into unlocking position, and also adapted to move the bolt into a second extended locking position, bolt operating means located in proximity to each lock bolt and movable with respect thereto, interengaging means on each lock bolt and the adjacent bolt operating means, adapted to move the bolt into unlocking position when the key operated means is in normal position, and adapted to travel free of the lock bolt when said bolt is in the second extended locking position aforesaid, together with common means to move all of the bolt operating means in unison, substantially as described.

7. In a jail locking mechanism or the like, the combination with a series of swinging doors, and locking means for each door, of a common horizontally movable member in proximity to all of the doors, a mechanism box in proximity to each door, connections in each mechanism box to said horizontally movable member for actuation of and control of the corresponding door locking means, a removable cover for each mechanism box, means for snap-locking each such cover to its box, together with means on the horizontally movable member for disengaging said snap-locking means when the horizontally movable member is in one position, to permit removal of the cover, substantially as described.

FOLGER ADAM.