Nov. 11, 1941. H. S. HART ET AL 2,262,672

CELL DOOR LOCKING MECHANISM

Filed Jan. 23, 1940 5 Sheets-Sheet 1

Fig. 1

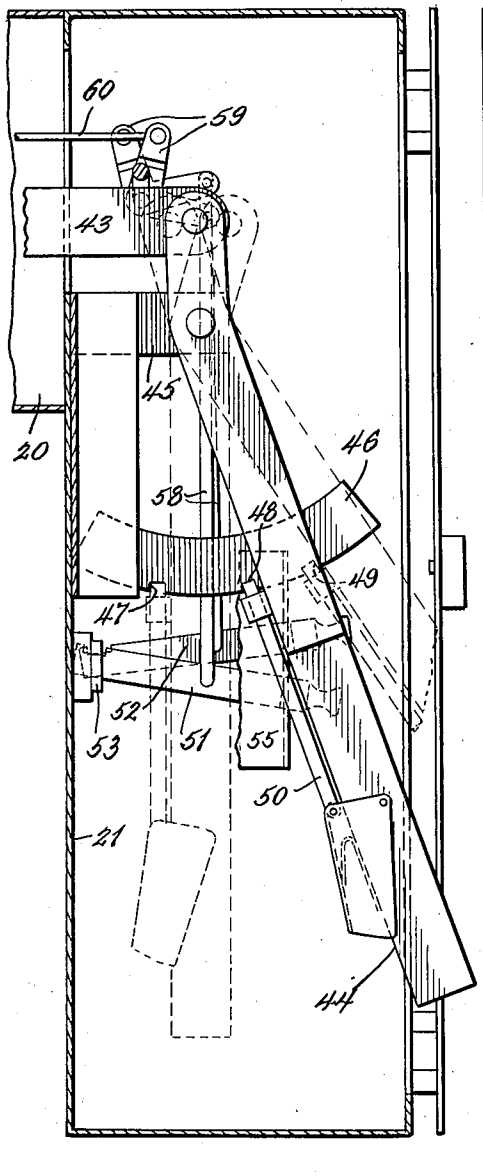
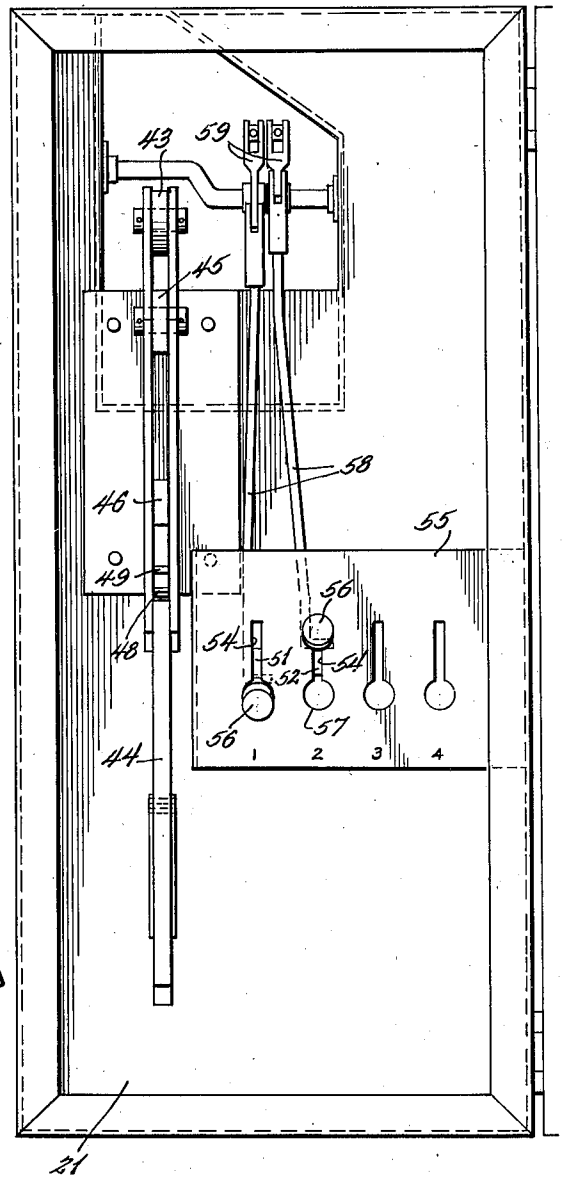


Fig. 2



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CELL DOOR LOCKING MECHANISM

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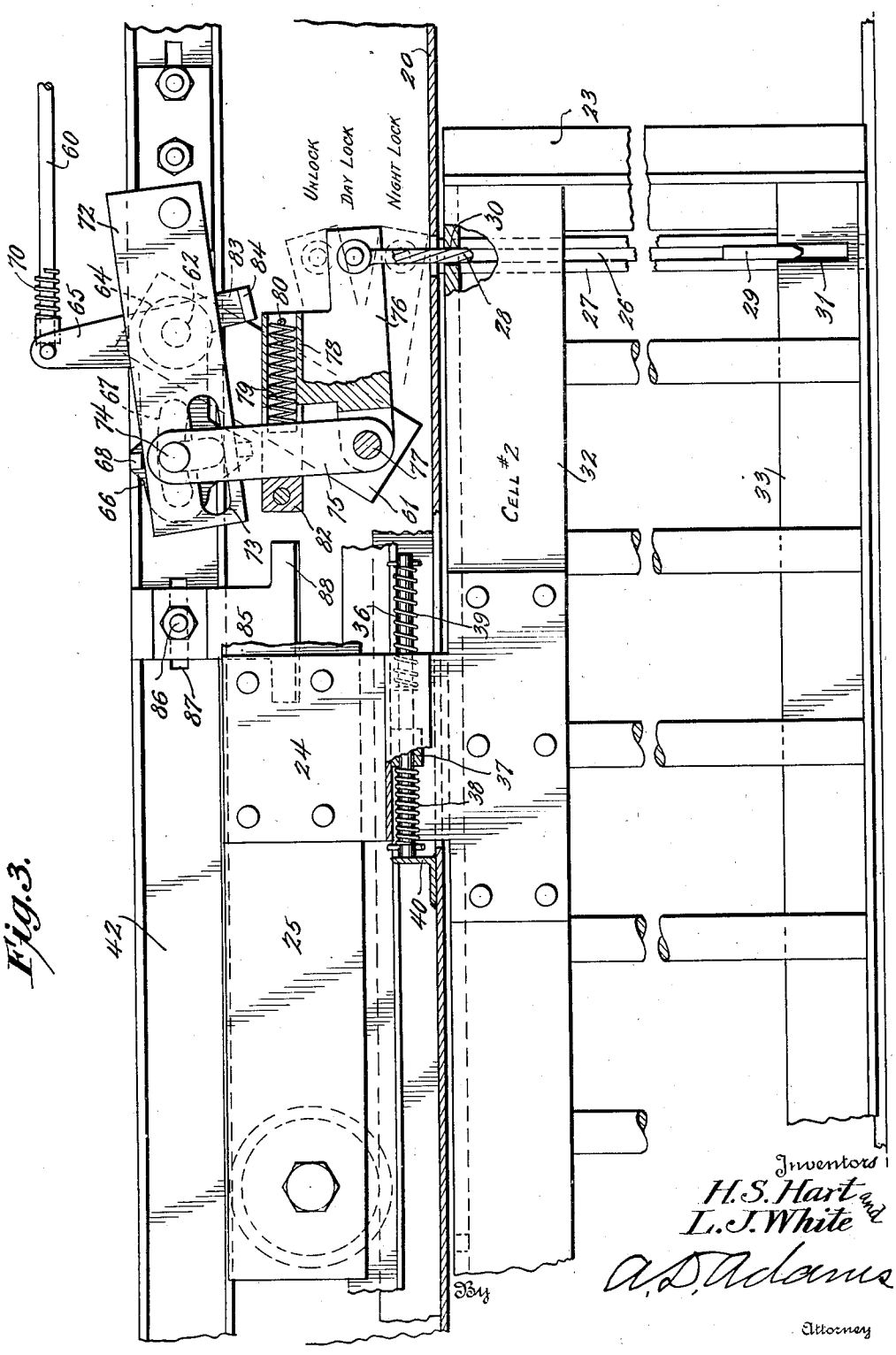

Fig. 3.

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CELL DOOR LOCKING MECHANISM

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Fig. 5

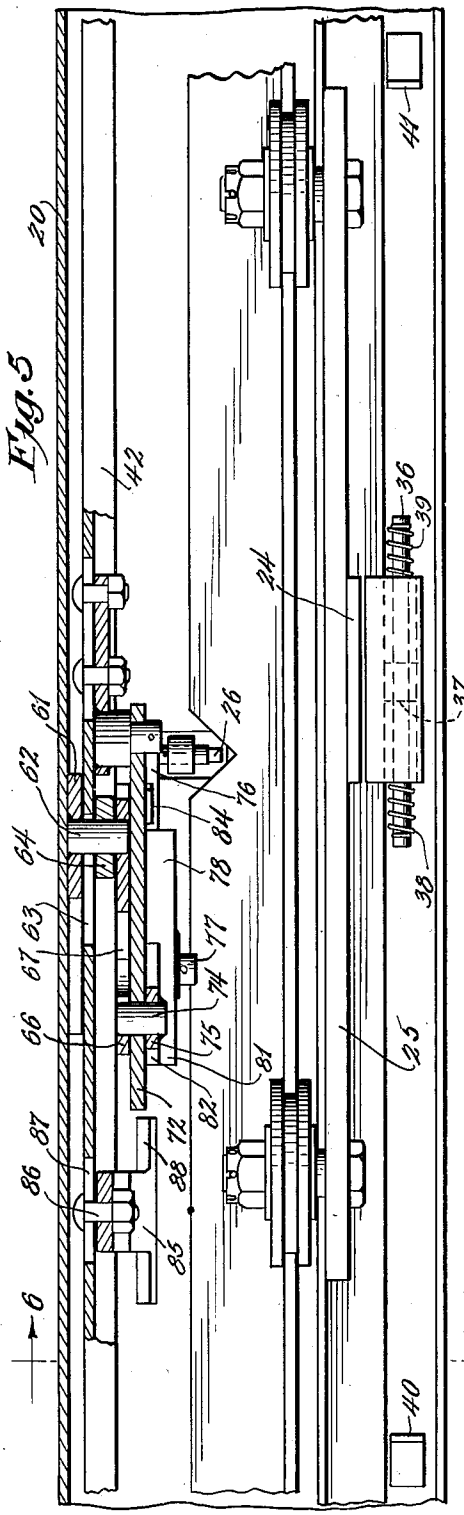


Fig. 6

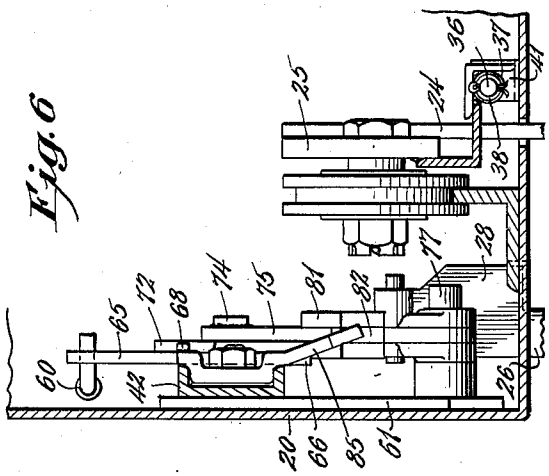
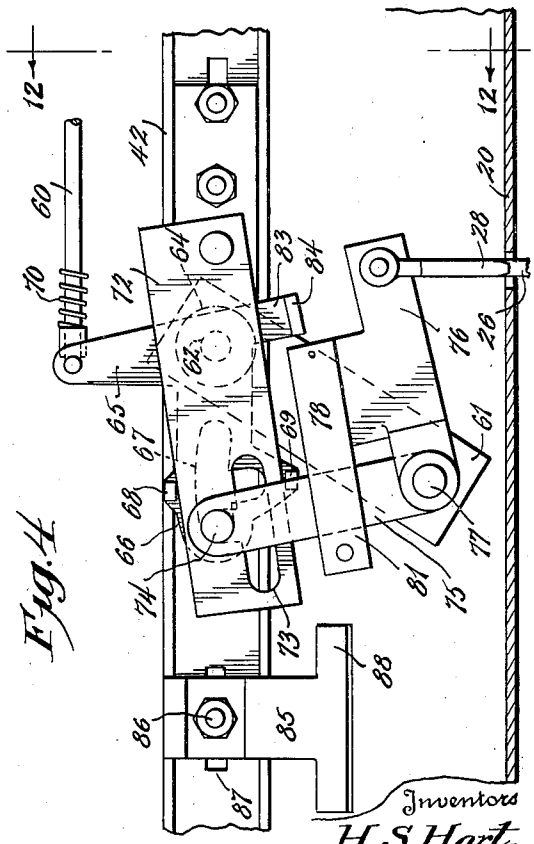


Fig. 4



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CELL DOOR LOCKING MECHANISM

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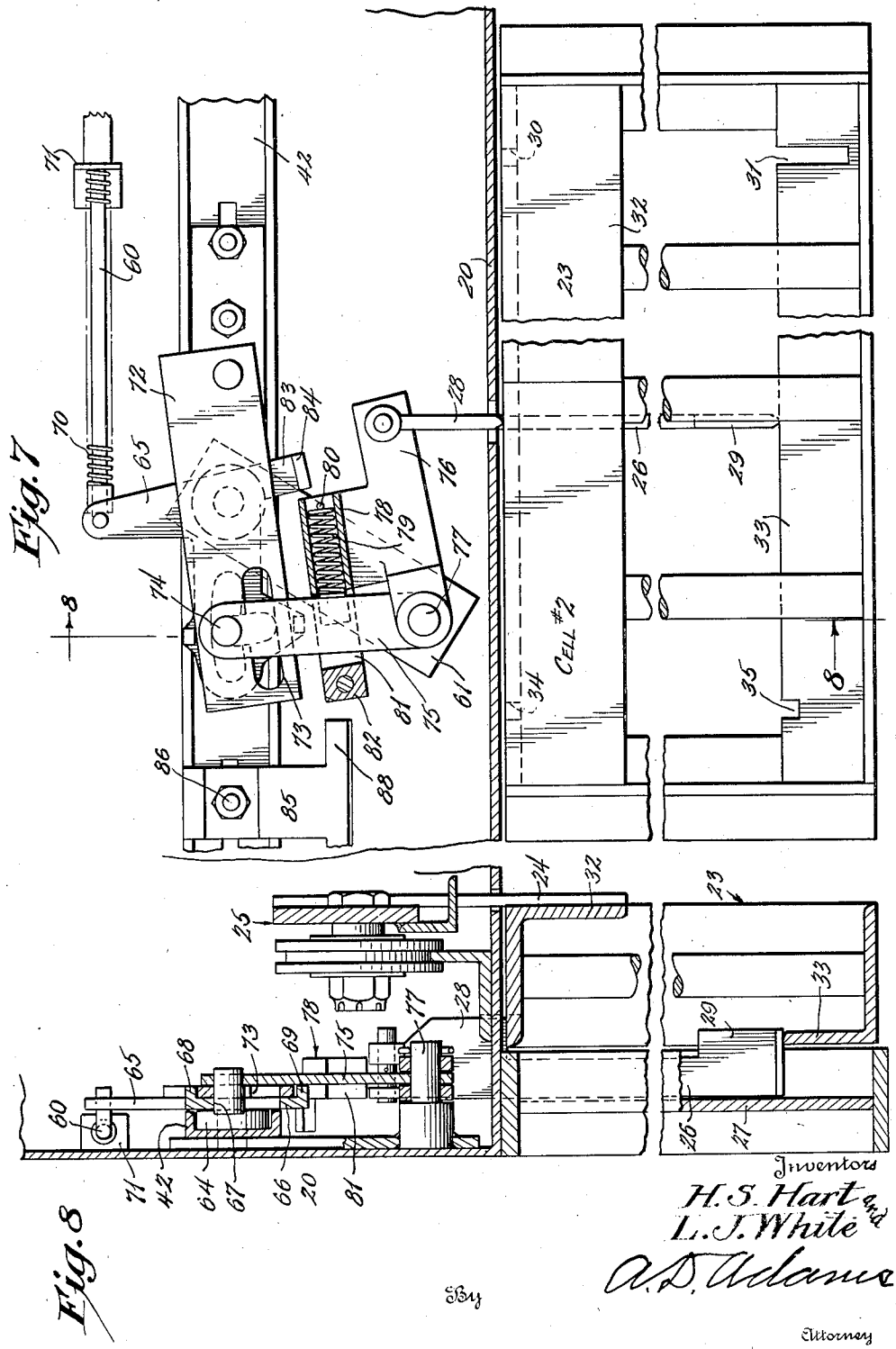

Fig. 7

Fig. 8

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CELL DOOR LOCKING MECHANISM

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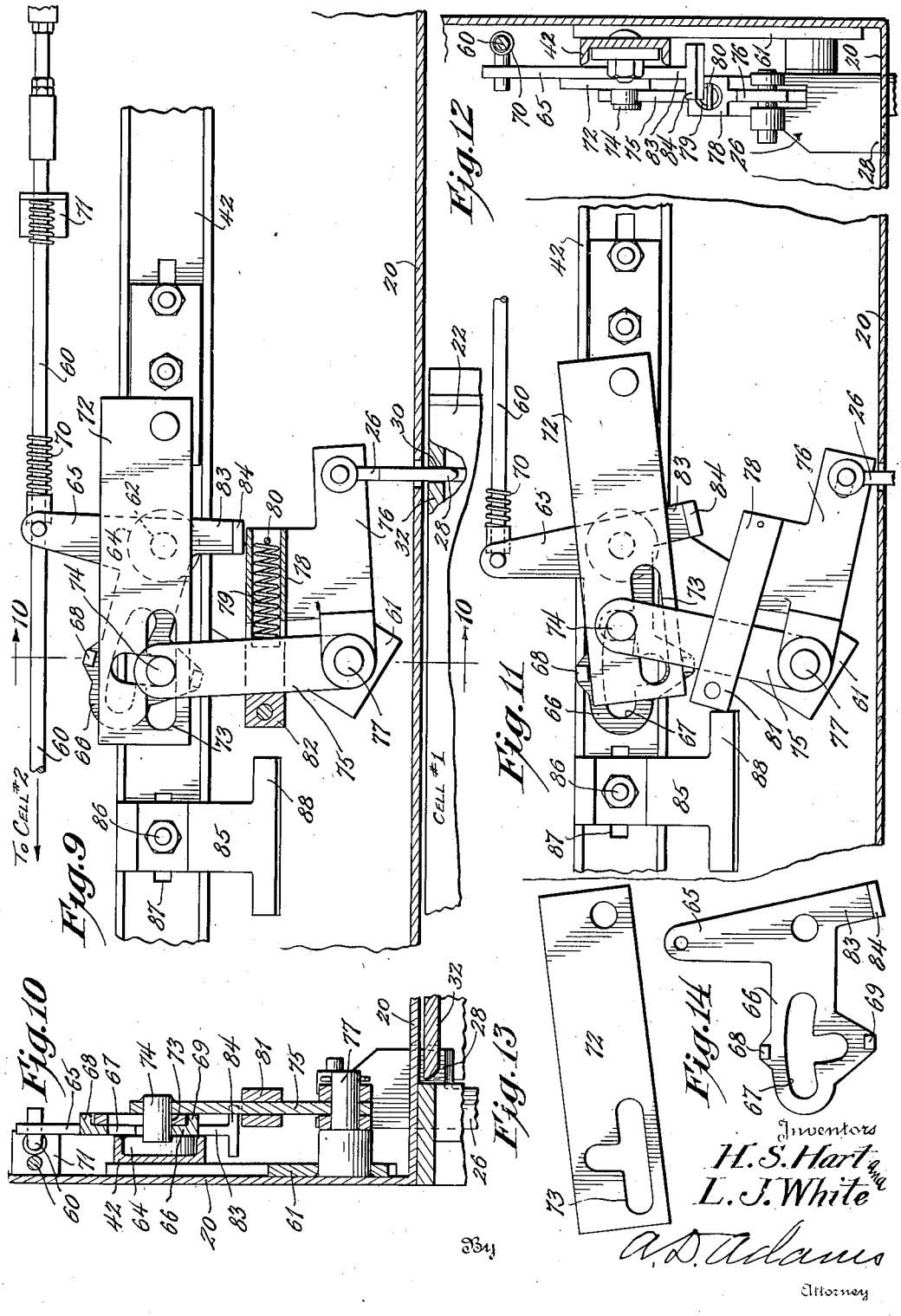

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Patented Nov. 11, 1941

2,262,672

UNITED STATES PATENT OFFICE

2,262,672

CELL DOOR LOCKING MECHANISM

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Application January 23, 1940, Serial No. 315,270

14 Claims. (Cl. 189—7)

This invention relates to cell door locking mechanism for prisons and the like and aims, among other objects, to provide in a so-called medium security system positively operated and selective locking mechanism by means of which any or all of the doors in a cell block may be locked in either open or closed position and, when unlocked, may be opened or closed by the prisoner. Another important aim is to provide in a remote control cabinet a single operating member which so controls and actuates the locking mechanism that all of the doors may be night-locked, day-locked or unlocked by the simple expedient of shifting the operating member to one of three different positions. Also, the invention provides novel means to insure that all doors are closed and locked before being night-locked. Further, the invention contemplates provision of automatic means to prevent prisoners from releasing the locks of individual locked doors when the main locking lever is in the night-locking position or when a door or doors are selected to remain closed and day-locked while others are being unlocked and opened. Another aim is to provide double spring buffers for each of the doors in a system of this type whereby, when the doors are unlocked, they will be initially propelled toward open or closed position permitting the prisoners to move them the rest of the way when they will be locked automatically either in fully open or fully closed position.

Other aims and advantages of the invention will appear in the specification, when considered in connection with the accompanying drawings, wherein:

Fig. 1 is a vertical sectional view, partly in elevation, showing the lever and selector mechanism in a master control cabinet for the system;

Fig. 2 is a fragmentary front elevation of the cabinet, the usual door being omitted;

Fig. 3 is a side elevation, partly in section, showing the locking mechanism above a sliding cell door, the door being day-locked, corresponding with the position of the main lever in Fig. 1;

Fig. 4 is a fragmentary side elevation of the locking mechanism shown in Fig. 3 with the locking mechanism in the unlocked position;

Fig. 5 is a horizontal sectional view of the mechanism with the parts in the position shown in Fig. 4;

Fig. 6 is a sectional view taken on the line 6—6 of Fig. 5;

Fig. 7 is another view similar to Fig. 4 but showing a door in an intermediate position with the locking mechanism set automatically to lock the door either open or closed;

Fig. 8 is a fragmentary sectional view taken on the line 8—8 of Fig. 7;

Fig. 9 is a view similar to Fig. 3 but showing the position of the parts when a door has been selected to remain closed and day-locked while the locks of other doors are to be operated;

Fig. 10 is a fragmentary sectional view taken on the line 10—10 of Fig. 9;

Fig. 11 is a fragmentary view similar to Fig. 3 showing the parts in the night-locked or dead-locked position;

Fig. 12 is a fragmentary sectional view taken on the line 12—12 of Fig. 4;

Fig. 13 is a side elevation of a slotted index link; and

Fig. 14 is a similar view of a slotted index rocker or compound bell-crank cooperating with the link.

Referring more particularly to the drawings, the system illustrated is of the sliding door type, embodying a plurality of cell doors arranged in line in a cell block, said doors adapted to be operated by the prisoners after being unlocked. In such systems, the locking mechanism is usually arranged within a longitudinal housing or cover box 20 extending above the line of doors and leading to a master control cabinet 21 of the usual type conveniently arranged in one end of the cell block. In this instance, the improved locking mechanism is illustrated as being applied to two successive sliding doors 22 and 23 of a row, as shown in Figs. 3 and 9. The doors are of the usual type suspended by hangers 24 from ordinary wheeled carriages 25 in the housing 20. The individual locks for the doors are shown as being in the form of vertical bars 26 extending through the bottom of the housing 20 and mounted for vertical movement in protecting casings 27. They have upper and lower lateral shoulder extensions 28 and 29 coacting with aligned notches 30 and 31 in the flanges of the upper and lower door angles 32 and 33, respectively, when the doors are in fully closed position. When the doors are in fully open position, these extensions 28 and 29 coact with similarly aligned notches 34 and 35 in the door angles 32 and 33 respectively. The notches 30 and 34 are formed in the horizontal flange of the angle 32, while the notches 31 and 35 are formed in the vertical flange of the lower angle 33, the notch 31 being deeper than notch 35 for a purpose to be hereinafter described.

The doors are arranged to be initially pro-

pelled toward open or closed position when the lock bars are released so that the prisoners may know that the doors are free to be moved and can then open or close them. In this instance, a combined buffer and door starter in the form of a plunger **36** is slidably mounted on each door carriage **25** in a tubular sleeve **37** and carries a pair of expansible coil springs **38, 39** one on either side of the sleeve, and confined between the sleeve and pins near the ends of the plunger. The plunger is adapted to engage fixed stops **40** and **41** when the door is in closed or open position, respectively. As will be seen in Fig. 3, when the door is in closed position, the plunger will abut against stop **40** and the spring **38** will be compressed. When the lock bar is raised to unlock the door, the stored energy in spring **38** will initially propel the door to the right toward open position. The lock bar may then be lowered, as will be hereinafter described, and the shoulders **28** and **29** will ride on the flanges of the door angles **32** and **33** between the notches, as shown in Fig. 7. The prisoner may then move the door to fully open position, thereby causing the plunger to engage stop **41** and compress spring **39**, the locking shoulders **28** and **29**, at the same time, dropping into the notches **34** and **35** to lock the door open.

The mechanism over each door for operating the individual lock bars is connected to be actuated by a master lock operating bar **42** extending the length of the housing **20** and having a link **43** at one end projecting into the control cabinet **21** (Fig. 1). This link is shown as being pivotally connected to the upper end of a bifurcated lever **44** which, in turn, is pivoted near its upper end and straddles a bracket **45**.

This lever also straddles a locking segment **46** shown as having three locking notches **47, 48** and **49** for a spring latch **50** on the lever to hold it in its night-locked, day-locked and unlocked positions, respectively.

Also, within the control box there are shown index or selector levers **51, 52** for the locks of doors **22** and **23**, it being understood that there are as many selectors as there are doors. These levers are shown as being made of flat bars in the form of knife blades hooked under a plate **53** on the rear wall of the control cabinet. They project through vertical slots **54** in a selector panel **55**. The shanks on the end portions of the levers are cylindrical, terminating in operating knobs **56**, and when the levers are pulled down, they are adapted to be pushed inwardly with their cylindrical shanks engaged in circular key slots **57** at the bottom of the slots **54**. They are connected by links **58** to bell-cranks **59** at the top of the control box and the bell-cranks are connected to actuate selector rods **60** for each cell door.

Referring now to the mechanism for operating the locks and, more particularly, to Fig. 3, the arrangement is such that the locking bars **26** may be moved to all three positions by only a slight movement of the master bar **42**. In this instance, the master bar is mounted to reciprocate near the rear wall of the housing or cover box. A series of metal plates **61** are shown as being welded or otherwise secured to the back wall and carry horizontal pins **62** projecting through elongated slots **63** in the master bar. The master bar **42** is shown as being channel shaped and the pins **62** each carry a roller **64** in the channel so that the upper flange rides on the rollers. The rear ends of the selector rods **60** are shown as being pivotally connected to bell-cranks **65**, which, in turn, are pivoted on the pins **62**. Each bell-crank has a rearwardly projecting arm **66** presenting a curved T-slot **67** and a pair of lugs or fingers **68** and **69** projecting forwardly therefrom above and below the slot. The bell-crank **65** is normally held in the inactive position shown in Figs. 3 and 7 by means of an expansible coil spring **70** on the selector rod abutting against an angle bracket **71** secured to the back wall of the cover box and serving as a guide for the selector rod.

Pivoted ahead of the bell-crank **65** and on the master bar **42** there is shown an operating or index link **72** projecting rearwardly between the fingers **68** and **69** and against the arm **66** and it has an inverted T-slot **73** which cooperates with the curved T-slot **67** normally to impart actuating movement to the locking bar **26** through a pin **74** and a pair of crank arms **75** and **76**, pivoted on a horizontal pin **77** also mounted on the plate **61**. The pin **74** is secured to the upper end of the arm **75**, and projects through both slots **67** and **73**. The arms **75** and **76** together form a bell-crank but the arm **75** is permitted to swing slightly relative to the arm **76** to permit the locking bar extensions **28** and **29** to ride on the door angles and snap into locking engagement with the locking notches by spring action. For that purpose, the upper side of the arm **76** has an enlargement **78** having a bore carrying an expansible spring **79** acting on one side of the link **75**, a pin **80** being inserted through the bore to retain the spring in place. The enlargement has a bifurcated extension **81** straddling the arm **75** and a spacer block or member **82** is secured in the slot to act as a stop to prevent too much relative movement of the arms **75** and **76**. Now, it will be understood that when the arm **75** is swung toward the right by virtue of movement of the master bar **42**, the locking bar **26** will be moved downwardly toward its night-locking position. In Fig. 3, it is shown as having been moved to its day-locking position. That position corresponds with the position of the lever **44** shown in full line position in Figs. 1 and 2.

The relative position of the bell-crank arm **66** and the operating or index link **72** determines whether any door may be locked or unlocked and, incidentally, the link **72** is confined between the fingers **68** and **69** to oscillate with the crank arm **66** when the selector is operated to index out a door. It will be obvious that when the horizontal part of the inverted T-slot **73** in the index or operating link is raised to the position shown in Fig. 9, this link is free to move back and forth with the master bar **42** without imparting any lock operating movement to the operating arms **75** and **76**. When it is in the position shown in Fig. 3, any movement imparted to the master bar **42** will be transmitted to the lock bar. The bell-crank or index rocker **65** is simply operated to control the position of the inverted T-slot in the operating link **72**, and thereby index out any door that may be selected to remain closed. In all other positions, except that shown in Fig. 9, this operating link is always positively engaged with the pin **74** on the arm **75**. The normal position of the two slots relative to the pin **74** is correctly shown in Fig. 3, in which the doors happen to be in day-locked position. That is to say, the pin is in the stem or vertical branch of the slot **73** and at the center of the horizontal portion of the slot **67**. Thus, the pin is free to be moved back and forth in the horizontal curved part of the slot **67**. Now, when the index bell-crank or

rocker **65** is swung to the right to index out a door, as shown in Fig. 9, for example, the stem of the slot **67** will engage the pin **74** and the link **72** is raised so that the pin **74** is in the center of the horizontal part of the slot **73**. It will be obvious that the pin is then locked against swinging movement and the master bar **42** is therefore left free to move back and forth to operate the locks of other doors because the horizontal part of the slot **73** coacts with pin **74**. It should be noted that the rocker **65** may be swung to the right to index out a door only when the master bar **42** and bell-crank **75—76** are in day-locking position and a door is either open or closed, because these are the only times when the two vertical branches of the slots **67** and **73** are in alignment and the extension **83** is free to swing without striking the end of the enlargement **78**.

It will be understood that Fig. 3 represents the position of the parts for all of the locks when the selector levers in the control cabinet are in the upper position or at the top of the knife blade slots **54** and the master lock operating lever **44** has been swung to the day-locked position shown in full lines in Fig. 1. Fig. 9 represents the position of the parts over the first cell door when an index or selector lever, such as the lever **51**, has been pushed down to index out that door so that it cannot be operated by subsequent movement of the master operating lever **44**. It will be noted that when the index lever is swung to its lowermost position and pushed inwardly to lock it in that position, the index rod **60** is moved to the right and carries with it the index rocker or bell-crank **65**, compressing the spring **70**. As has already been explained, the master locking bar **42** is now free to be moved back and forth without disturbing or actuating the lock for that cell door. To dead-lock the lock bar **26** and thus prevent a prisoner from raising it when the door is indexed out, the index bell-crank **65** is shown as having a depending short bracket extension **83** having a lateral flange or stop shoulder **84** adapted to swing just above the enlargement **78** on the arm **76** so that the arm cannot be raised. This is the position of the locking mechanism for all of the doors when they are indexed out to remain closed and locked while others are being unlocked.

Let us assume, for example, that cell No. 1 is the only one which has been indexed out or is to remain closed and locked, as shown in the control panel. Then it is only necessary to grasp the hand grip of the master operating lever **44** and swing it to its outermost position to unlock all the rest of the cell doors. The mechanism is then in the position shown in Fig. 4. The unlocked doors are kicked toward open position by the respective spring plungers **36** as has been previously described, so that the prisoners can finish opening their doors. Then, the attendant or keeper moves the master operating lever **44** back to its day-locked position, as shown in full lines in Fig. 1, so that the parts are in the position shown in Fig. 7. In that position, the spring **79** in the compound bell-crank **75—76**, exerts spring pressure on the locking bar **26** so that its locking shoulders ride on the top flanges of the angles **32** and **33** of the respective cell doors. They are ready to snap into locking position as soon as the doors reach their fully opened position and they snap into the shallow notches **34** and **35** near the front edges of the doors.

Now, when it is desired to unlock the doors which have been locked open, the lever **44** is again operated to move it to its unlocking position and the opened doors are kicked toward closed position so that the prisoners can finish closing them, the lever being again returned by the prison keeper to the day-locked position, so that the locking bars will again snap into locking engagement with the doors in closed position engaging the locking notches **30** and **31**.

Assuming that the closed and locked doors are to be night-locked, all of the selector or index levers must be released and in raised position. The master lever **44** is then swung rearwardly to its vertical position and locked in the back notch. The master bar moves the parts to the position shown in Fig. 11, so that the lower shoulders **29** on the lock bars **26** drop to a point near the bottom of the deep slots **31** in the vertical angle flanges **33** on the doors. It will be noted that the operating link **72** has pulled the pin **74** to the forward end of the horizontally curved portion of the slot **67**.

To insure that all doors are night-locked and to prevent the prisoners from raising any of the lock bars, the master bar is shown as carrying depending T-shaped brackets **85** adjustably secured to the master bar by bolts **86** passing through slots **87** in the master bar. Each bracket has a stop finger **88** adapted to engage the ends of the extensions **81** of the enlargements **78**. The main purpose of these stop members is to arrest the movement of the master bar **42** toward night-locking position when any of the doors happen to be open and/or locked open because the lock operating arm **76** cannot then swing to the position shown in Fig. 11, in which position the locking shoulder **29** is in the bottom part of the deep notch **31**, as indicated in Fig. 3. Therefore, unless all doors are closed, it is impossible for an attendant or keeper to move the main locking lever to its night-locking position. In fact, he cannot even close the door of the control cabinet for the night, because the main lever **44** will project beyond the front wall, as shown in Fig. 1. This provides means automatically to determine that all cell doors are locked closed for the night. Furthermore, the stop members assist in imparting locking movement to the lock operating arms **76** against the action of the springs **79** when the master locking bar approaches the night-locking position. The stop members further act as safety locking abutments for all of the operating arms **76** when they are in the night-locking position, so that a prisoner cannot raise a locking bar **26** to unlock his cell door without moving the master bar **42** which is locked by the lever **44**.

After all of the cell doors have been locked for the night and an attendant or keeper desires to release all of the prisoners at once, it is only necessary for him to open the control cabinet and move the main operating lever **44** to its unlocked position. This can be done very quickly and also enables an attendant to release all of the prisoners in an emergency. He does not even have to operate any of the index or selector levers. In fact, it is impossible to leave any door indexed out when the doors are night-locked. As has already been explained, however, he can index out the locks for any particular cell doors, which he selects to remain closed, by operating the respective index or selector levers when the operating lever is in its day-locking position. Then, the locking mechanism for the closed and locked cell doors

will remain in the safety day-locked position shown in Fig. 9. Thus, the locking system can be used to afford maximum security at the will of an attendant and, at the same time, the prisoners may be given freedom to go and come from their cells, each being required to open and close his own cell door. It is to be understood, however, that substantially the same locking mechanism may be employed in fully selective systems having a master door operating bar. Moreover, it is applicable to cell systems having swinging doors.

From the foregoing description, it will be seen that the improved locking system is relatively simple in its construction and easy to operate. It requires no particular skill on the part of an attendant or keeper to operate it. The safety locking features for both day-locked and night-locked position afford the same security as most of the so-called maximum security installations. Furthermore, it is contemplated that such systems will be demanded by practically all ordinary penal institutions.

Obviously, the present invention is not restricted to the particular embodiment thereof herein shown and described. Moreover, it is not indispensable that all the features of the invention be used conjointly, since they may be employed advantageously in various combinations and subcombinations.

What is claimed is:

1. In a jail cell installation having a plurality of cell doors, individual locks for the doors; a master lock operating bar; means normally connecting said master bar to operate the several locks; individual selector mechanism for each door operable from a remote control station and connected to render inactive the lock operating connections to any of said locks, leaving the master bar free to operate the remaining locks; a single operating member connected to said master bar having three operating positions, one in which all doors must be securely or night-locked closed, a second in which the locks are moved to an intermediate or day-locked position so that the selector mechanism may be actuated to render any lock operating connection inactive and in which the doors remain locked either open or closed and a third in which all doors not selected to remain locked are unlocked; and means on the master bar coacting with the locks connected to prevent the operating mechanism from being moved to night-locked position unless all doors are closed.

2. In a jail cell installation having a plurality of cell doors, individual locks for the doors; a master lock operating bar; means normally connecting said master bar to operate the several locks; selector mechanism connected to render inactive the lock operating connections to any of said locks, leaving the master bar free to operate the remaining locks; a master control cabinet at one end of the master control bar; a plurality of index levers in the master control cabinet for operating the selector mechanism; a master operating lever for the master bar movable to night-locked, day-locked and unlocked positions also arranged in the control cabinet; a locking segment for the master operating lever having notches for locking it in at least two positions, one in which the locks have been moved from a night-locked position to an intermediate or day-locked position, permitting the index levers to be actuated in that position, only, to render any lock operating connection inactive and thereby index out any door or doors which are to remain locked in either open or closed position and another in which all doors not selected to remain locked are unlocked; and means on the master bar coacting with the locks connected to prevent the operating mechanism from being moved to night-locked position unless all doors are closed.

3. In a jail cell installation having a plurality of cell doors, individual locks for the doors; a master lock operating bar; means normally connecting said master bar to operate the several locks; individual selector mechanism for each door operable from a remote control station and connected to render inactive the lock operating connections to any of said locks, leaving the master bar free to operate the remaining locks; a master control cabinet at one end of the master control bar; a plurality of index levers in the master control cabinet for operating the selector mechanism; a master operating lever for the master bar also arranged in the control cabinet; a locking segment for the master operating lever having notches for locking it in at least three positions, one in which all doors must be securely or night-locked in closed position, a second in which the locks are moved to an intermediate or day-locked position so that the selector mechanism may be actuated by said index levers to render any lock operating connection inactive and in which the doors remain locked either open or closed and a third in which all doors not selected to remain locked are unlocked; and means on the master bar coacting with the locks connected to prevent the operating mechanism from being moved to night-locked position unless all doors are closed.

4. In a jail cell installation of the class described having a plurality of sliding cell doors, individual lock bars for the doors; a housing above the doors; a master lock operating bar in the housing; means normally connecting said master bar to operate the respective locking bars; selector mechanism including rocker members and selector rods connected to render inactive said operating connections to any of said locking bars, leaving the master bar free to operate the remaining lock bars; a master control cabinet at one end of said housing; index members in said cabinet connected to the respective selector rods; a master operating member also in said cabinet connected to reciprocate said master bar and move it to night-locked, day-locked and unlocked positions; means for locking said master operating member in at least two lock operating positions, one in which all of said locking bars are held in the intermediate or day-locking position permitting the index members to be operated in that position, only, to select any of the doors to remain locked, leaving the master bar free to operate the locks of the remaining doors, and another in which all doors not selected to remain closed and locked are unlocked; and means on the master bar coacting with the locks connected to prevent the operating mechanism from being moved to night-locked position unless all doors are closed.

5. In a jail cell installation of the class described having a plurality of sliding cell doors, individual lock bars for the doors; a housing above the doors; a master lock operating bar in the housing; means normally connecting said master bar to operate the respective locking bars; individual selector mechanism for each door including rocker members and selector rods

connected to render inactive said operating connections to any of said lock bars, leaving the master bar free to operate the remaining lock bars; a master control cabinet at one end of said housing; index members in said cabinet connected to the respective selector rods; a master operating member also in said cabinet connected to reciprocate said master bar; means for locking said master operating member in at least three lock operating positions, one in which all doors must be securely or night-locked in closed position, a second in which the locking bars are moved to an intermediate or day-locked position so that the selector mechanism may be actuated to render any lock operating connection inactive and in which the doors remain locked either open or closed, and a third in which all doors not selected to remain locked are unlocked; and means on the master bar coacting with the locks connected to prevent the operating mechanism from being moved to night-locked position unless all doors are closed.

6. In a jail cell installation having a plurality of cell doors, individual locking bars for the doors; a master lock operating bar; means normally connecting said master bar to operate the several locks; individual selector mechanism for each door operable from a remote control station and connected to render inactive the lock operating connections to any of said locking bars, leaving the master bar free to operate the remaining locking bars; a single operating member connected to said master bar having three operating positions, one in which all doors must be securely or night-locked closed, a second in which the locking bars are moved to an intermediate or day-locked position so that the selector mechanism may be actuated to render any lock operating connection inactive and in which the doors remain locked either open or closed and a third in which all doors not selected to remain locked are unlocked; and means cooperating with said lock operating connections connected to prevent the master lock operating bar from being moved to the night-locking position unless all doors are previously closed and locked.

7. In a jail cell installation having a plurality of cell doors, individual locks for the doors; a master lock operating bar; means normally connecting said master bar to operate the several locks; selector mechanism connected to render inactive the lock operating connections to any of said locks, leaving the master bar free to operate the remaining locks; a single operating member connected to said master bar having three operating positions, one in which all doors must be securely or night-locked closed, a second in which the locks are moved to an intermediate or day-locked position so that the selector mechanism may be actuated to render any lock operating connection inactive and in which the doors may be locked either open or closed and a third in which all doors not selected to remain locked are unlocked; and means to prevent the master bar from being operated to night-lock all of the doors unless every door is closed, said means also being connected to the master bar to prevent the lock bars from being released by the prisoner when the master bar is in the night-locking position.

8. In a jail cell installation having a plurality of cell doors, individual locks for the doors; a master lock operating bar; means normally connecting said master bar to operate the several locks; selector mechanism connected to render inactive the lock operating connections to any of said locks, leaving the master bar free to operate the remaining locks; a master operating control cabinet at one end of the master lock operating bar; a plurality of index members connected to operate the selector mechanism for the respective locks and arranged in the cabinet; a master operating lever connected to reciprocate the master bar and adapted to be moved to three lock operating positions, one in which the doors are unlocked and another in which the locks are moved to a second position to lock all doors either open or closed, in which locked position said index members are free to be operated to select any doors to remain locked, and said selector mechanism for each of the locks including a safety stop member cooperating with the lock operating means to prevent the lock from being released by a prisoner; and a third position in which all doors must be night-locked closed; and additional stop means to prevent the locks from being released from their night-locked position.

9. In a jail cell installation having a plurality of cell doors, individual locks for the doors; a master lock operating bar; means normally connecting said master bar to operate the several locks; selector mechanism connected to render inactive the lock operating connections to any of said locks, leaving the master bar free to operate the remaining locks; a single operating member connected to said master bar having three operating positions, one in which all doors must be securely or night-locked closed, a second in which the locks are moved to an intermediate or day-locked position so that the selector mechanism may be actuated to render any lock operating connection inactive and in which the doors may be locked either open or closed, and a third in which all doors not selected to remain locked are unlocked; stop means on the master bar cooperating with the lock operating connections to prevent a prisoner from releasing any lock in the night-locking position; a second stop member forming part of the selector mechanism also cooperating with the lock operating connections to prevent a prisoner from releasing the lock of any door which has been previously day-locked and selected to remain locked closed; and spring means to start all unlocked doors toward open or closed position when they are unlocked so that the prisoner may finish the opening or closing operation.

10. In a jail cell installation of the character described having a plurality of sliding cell doors, individual vertical locking bars for each of the doors; a locking member on each of the doors having a pair of notches to receive said locking bar, one notch for the closed and locked position of the door being deeper than the other notch; a cover box above the doors; a master lock operating bar in the cover box; normally active lock operating connections between the master bar and the individual locking bars; selector mechanism constituting a part of said connections including means to render inactive the operating connection between said master bar and any of the locking bars; a master control box at one end of said cover box; index members in said control box connected to operate said selector mechanism whereby any door may be selected to remain locked in either open or closed position; a master operating member connected to the master bar; and means releasably to lock said master operating member in at least

two positions, one in which the individual locking bars are seated in the deeper notches of the doors to night-lock them in closed position only, and another in which the locking bars are moved to a second or day-locked position so that any doors may be selected to remain closed and locked in the day-locked position and the respective locking bars may be seated in either of the notches in each door, whereby any door may be locked in either open or in closed position, said lever being movable to a different position to unlock all doors.

11. In a jail cell installation of the class described having a plurality of sliding cell doors, individual locking bars for the respective doors; notched members on each door cooperating with the locking bars to lock the doors in either open or closed position; a cover box above the doors; a reciprocating master bar in the cover box; operating links and arms normally connecting the master bar to the respective locking bars including a bell-crank member having spring biased arms normally resisting movement toward each other, one of said arms being directly connected to a locking bar; and means connected to operate the master bar to impart locking and unlocking movement to the respective locking bars so that the locking bars will engage or disengage the notched members of the doors, said notched locking members on the doors having a track on which the locking bars are adapted to ride when a door is being moved from one position to another, said locking bars adapted to be raised out of the notches when the master bar is moved to unlocking position and again biased by locking movement of said bell-crank member again to snap into locked position when riding upon said track.

12. In a jail cell installation having a plurality of cell doors, individual locks for the doors; a master lock operating bar; means normally connecting said master bar to operate the several locks; selector mechanism connected to render inactive the lock operating connections to any of said locks, leaving the master bar free to operate the remaining locks; a single operating member connected to said master bar having three operating positions, one in which all doors must be securely or night-locked closed, a second in which the locks are moved to an intermediate or day-locked position, so that the selector mechanism may be actuated to render any lock operating connection inactive and in which the doors may be locked either open or closed and a third in which all doors not selected to remain locked are unlocked, said lock operating connections each including a pivoted link on said master bar having an inverted T-slot; a bell-crank selector member on a fixed pivot having one arm adjacent to said pivoted link and presenting a T-slot co-acting with said inverted T-slot; and a bell-crank member having one arm connected to a lock and another arm having a pin projecting through both of said T-slots, the selector bell-crank member being operable to swing said slotted arm and link together relative to said pin and said T-slots being arranged to register with the pin to permit the master bar to be moved without imparting actuating movement through the pin to the lock operating bell-crank member when the selector mechanism is actuated to render the lock operating mechanism inactive.

13. In a jail cell installation having a plurality of cell doors, individual locks for the cell doors; a master lock operating member above the doors; means normally connecting said member to unlock, day-lock or night-lock said individual locks; selector mechanism operatively connected to said connecting means to render it inactive so that any selected doors may remain locked while the remaining locks are actuated; and stop means movable by said selector mechanism connected positively to prevent the selected locks from being unlocked; and means on the operating member connected to prevent the mechanism from being moved to night-locked position unless all of the cell doors are closed.

14. In a jail cell installation having a plurality of cell doors, individual locks for the doors; actuating means connected to the locks to move them to unlocking position and either of two locking positions, one locking position for day-locking the doors in closed or open position and the other locking position for night-locking the doors in closed position; selector means operable from a remote control station for disconnecting the locks from the actuating means; means associated with the actuating means to dead-lock the locks in night-locking position; and separate means associated with the selector means to dead-lock the locks in day-locking position.

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