

[54] ELECTRICAL LOCKER MEANS

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3,196,223 7/1965 Hartsock..... 200/16
3,625,033 12/1971 Subieta 70/278

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[58] Field of Search 70/84, 264, 278, 279;
200/11 DA, 14, 43

[56] **References Cited**

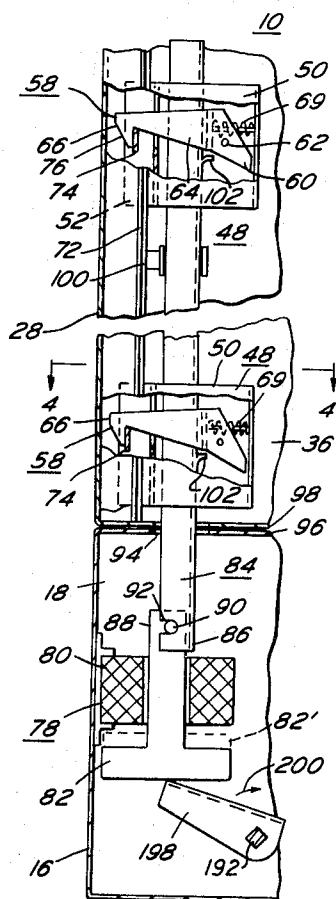
UNITED STATES PATENTS

2,153,088	4/1939	Knell.....	292/150
2,794,081	5/1957	Luhn.....	200/14
3,015,000	12/1961	Tabet.....	200/14

[57] **ABSTRACT**

An electrical locker means including a locker structure having a chamber, door means having open and closed positions for controllably enclosing said chamber, an electrically actuated locking means having locked and release positions for locking said door means in its closed position and controllably releasing said door means for placing same in its open position, and lock control means for selectively energizing the electrically actuated locking means for releasing the locking means.

6 Claims, 12 Drawing Figures



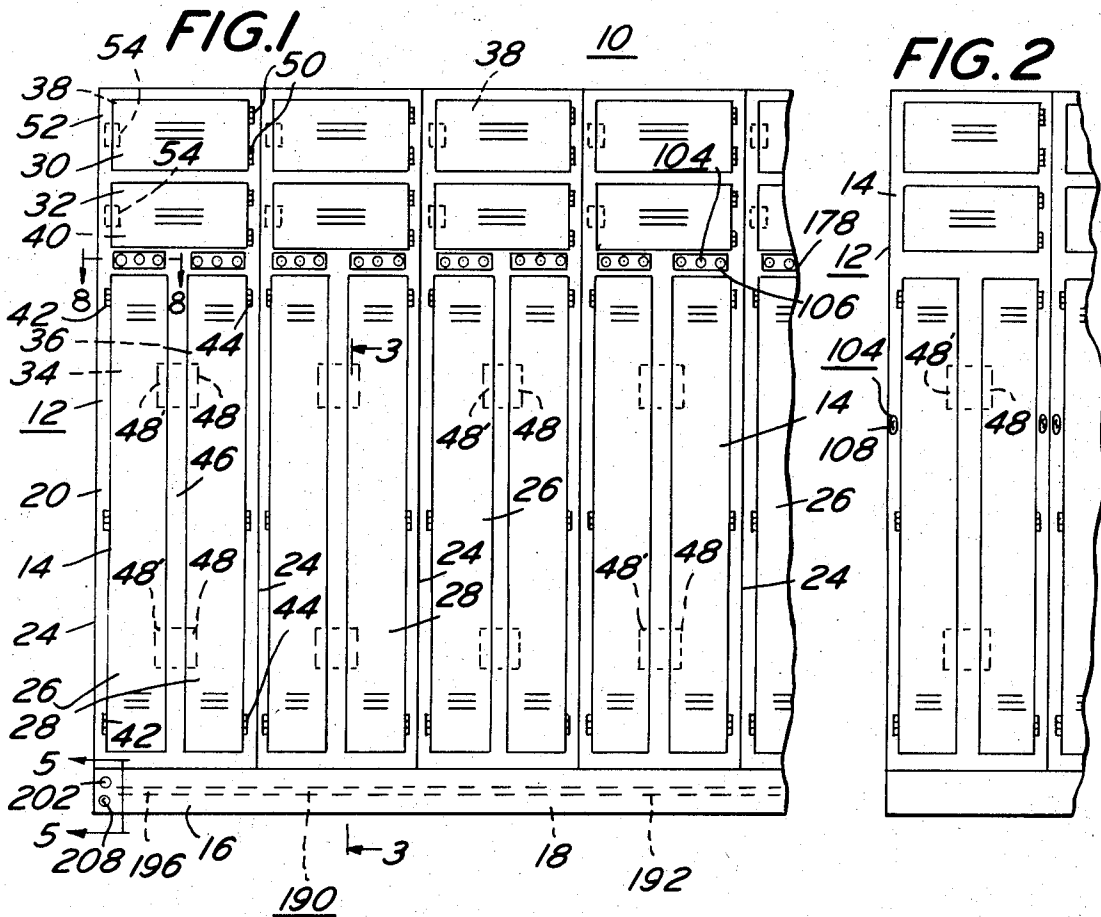
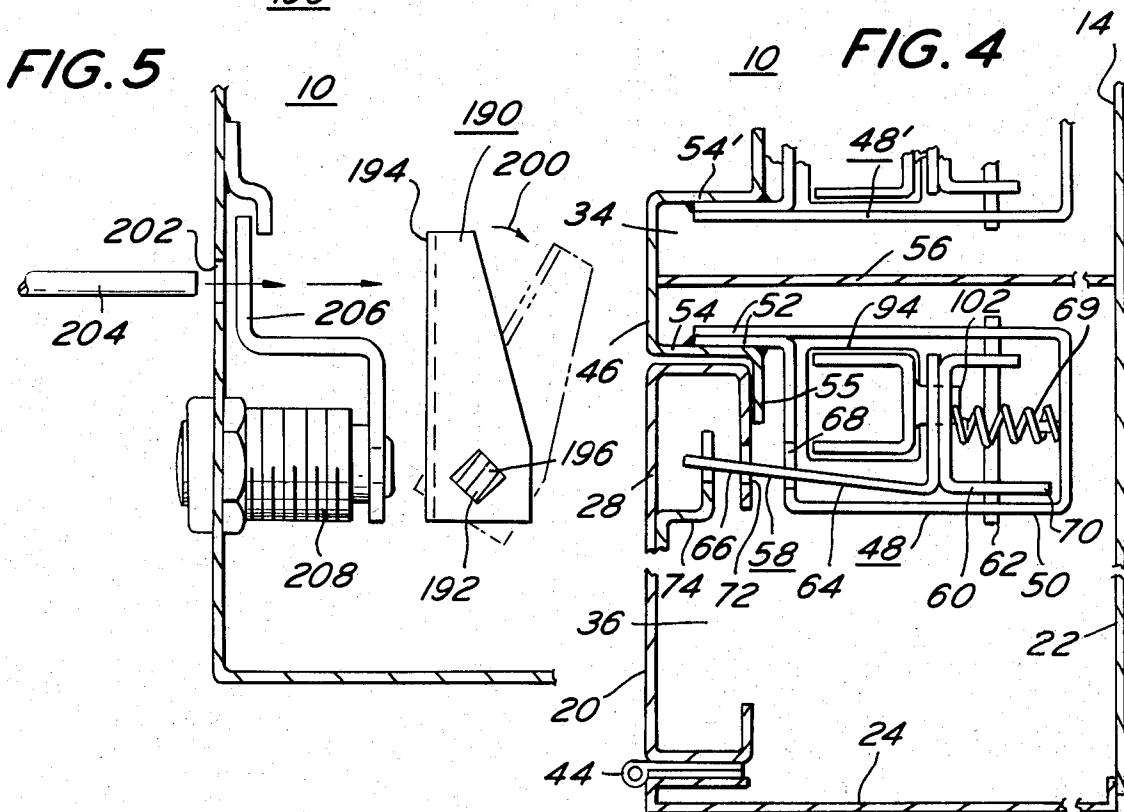


FIG. 3

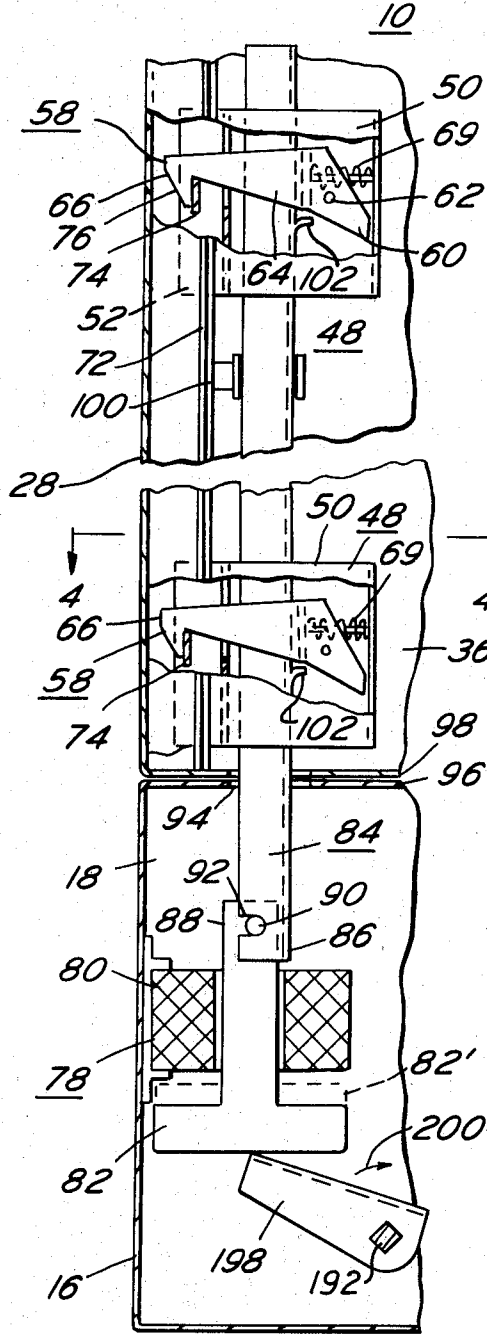


FIG. 6

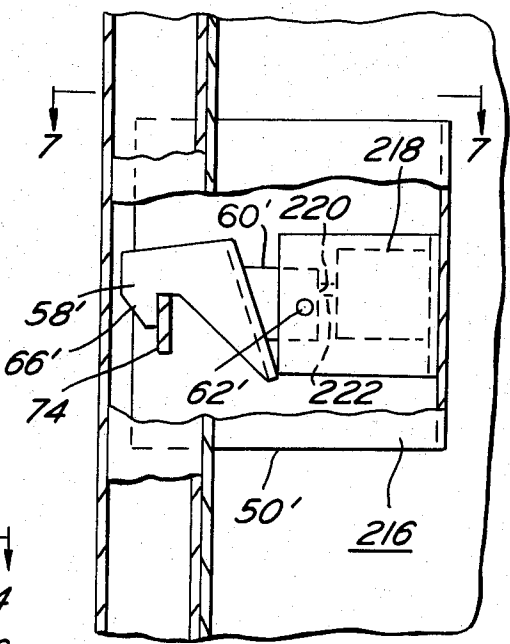


FIG. 7

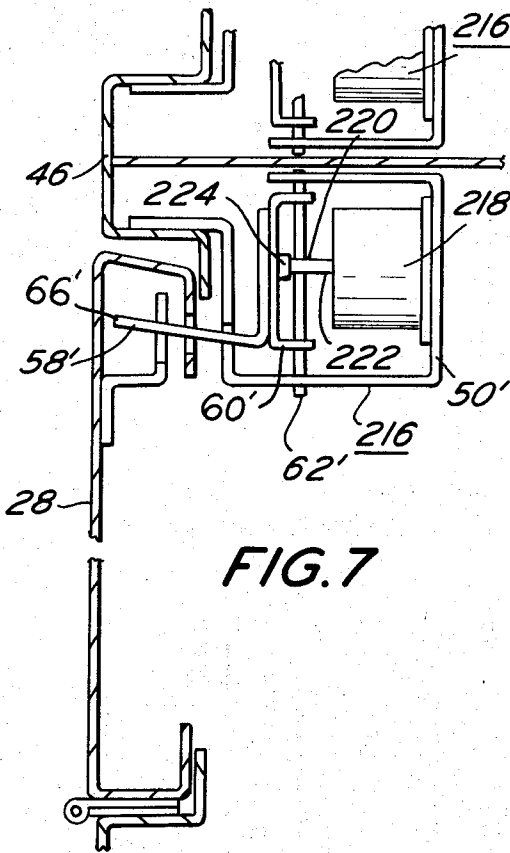


FIG. 8

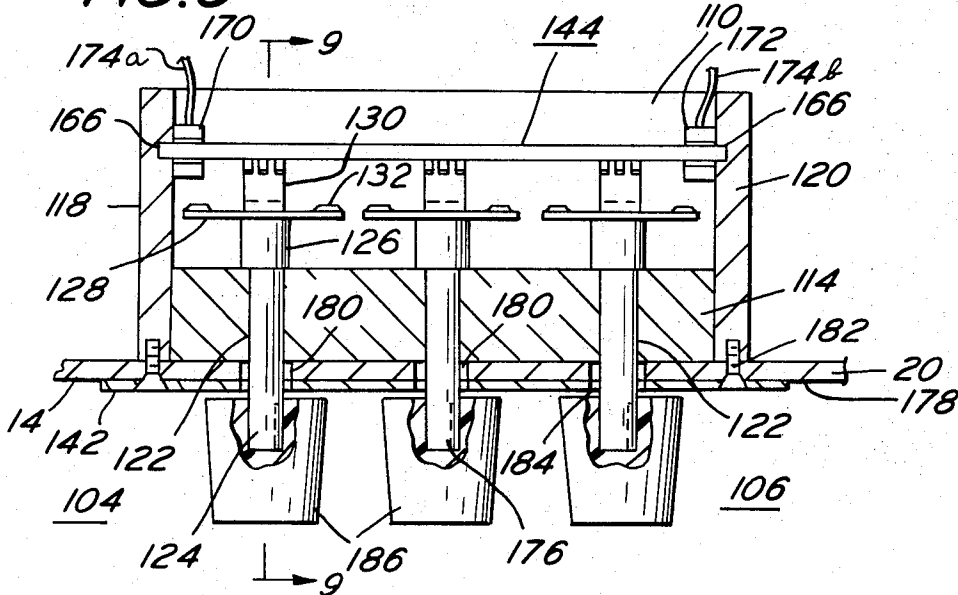


FIG. 9

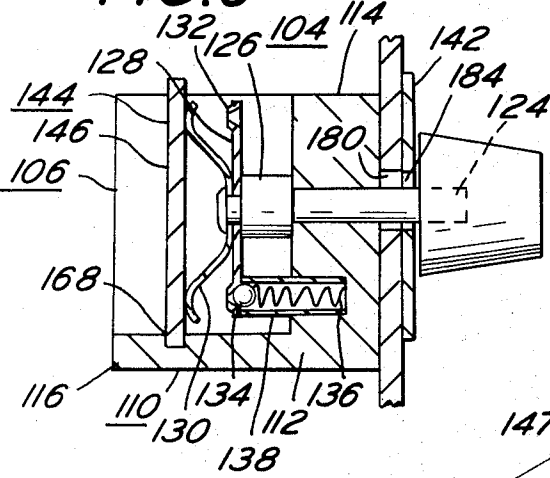


FIG. 11

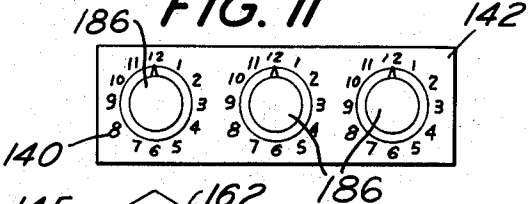


FIG. 10

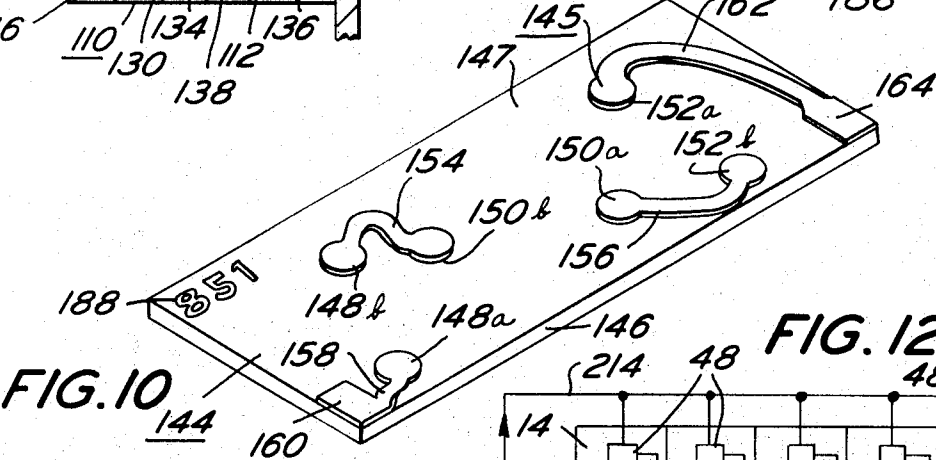
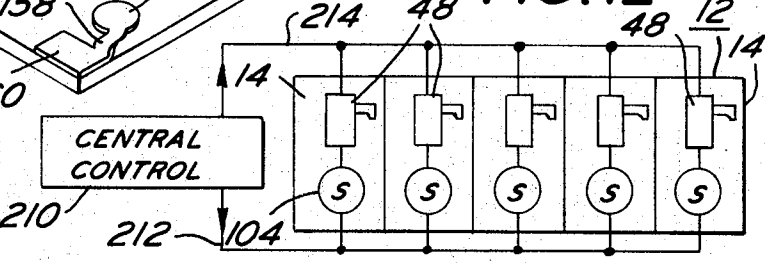


FIG. 12



ELECTRICAL LOCKER MEANS

The invention relates to a locker structure, and more particularly to a locker structure which is electrically controlled for releasing its door.

Heretofore, lockers have been provided with locker handles and locks for opening and securing same in the closed and locked positions. Such devices have required auxiliary locks provided by the user or the owner of the facility or lockers. The use of such lockers have provided difficulties due to jamming of the handles, the loss of the lock keys or combination numbers by the users. Such lockers have not provided management control as to the time when the lockers may be accessible or for controlling the opening and locking of such lockers at one or more local or remote locations.

It is therefore a principal object of the invention to provide a new and improved electrical locker means which may be electrically controlled for opening and locking of same.

Another object of the invention is to provide a new and improved electrical locker means providing a bank of lockers which can be centrally controlled and opened for inspection or kept locked during specific hours of the day.

Another object of the invention is to provide combination electrical locks for opening the locker doors which may readily have their lock combination numbers changed when lockers are reassigned or at any other desirable times.

Another object of the invention provides a new and improved electrical locker means providing greater security against improper use and access by unauthorized persons.

Another object of the invention provides a new and improved electrical locker means which is electrically operated and provides emergency mechanical operating means available in the presence of an electrical power failure.

Another object of the invention provides a new and improved electrical locker means which avoids the need for external locks or handles for opening and closing purposes.

Another object of the invention provides a new and improved electrical locker means which is jam proof and is electrically operable at local or remote locations.

Another object of the invention is to provide a new and improved electrical locker means which minimizes door opening and closing noises, is rugged in construction, durability and is trouble free in operation.

The above objects of the invention are achieved by providing an electrical locker means including a locker structure having a chamber, door means having open and closed positions for controllably closing the chamber, and electrical actuated locking means having locked and release positions for locking the door means in its closed position and controllably releasing the door means for placing same in its open position. The locking means includes at least one electrical unit for actuating the locking means for placing it in its released position and a lock control means for selectively energizing the electrical unit for releasing the locking means.

The lock control means may be key actuated or comprise a combination switch means including a plurality of rotatable switches which operate to release the door

means when the switches have been set to respective positions corresponding to a predetermined combination. The combination switch means includes a removable circuit board which can be replaced for changing the combination to which the rotatable switches must be set for releasing the locking means.

The locker structure has top and bottom portions and comprises a plurality of attached lockers each locker having front, rear and side walls, the lockers being secured together at proximate side walls to form a row of lockers, the front walls of each of the lockers being provided with at least one hinged door enclosing a chamber therewithin. The locking means provides each locker with a latch supported by the structure having a first normal position for engaging the door and a second activated position, and with an electrical latch actuating means. The latch when in its first position engages and locks the door in its closed position while releasing the door when in its second position. The latch actuating unit upon energization actuates the latch to its second position releasing the door and when deenergized allows the latch to assume its first normal position.

The locker structure is provided with a base at its bottom portion having a cavity extending along the row of lockers. The latch for each of the lockers is positioned intermediate of the top and bottom portions of the structure and its electrical actuating means includes a solenoid unit secured with the structure within the cavity of the base. The solenoid unit has an armature which has a first deenergized position and a second energized position. The armature of the solenoid unit when in its second position actuates its latch to its second releasing position. The lock control means includes a means for controllably allowing mechanical actuation of the armature of the solenoid unit from its first position to its second position for releasing the locking means.

The electrical locker means includes a central electrical control selectively conditioning the lock control means for rendering it operable. Each of the doors is individually releasable by energization of its actuating unit by its switch means when and only when the lock control means is conditioned by the central control means. The central control means is also selectively operative for bypassing the lock control means and directly energizing a selected one or more, or all of the locker locking means for releasing respective latches and opening their doors. Conversely, the central control unit may remove power from any one locker, group of lockers or rows of lockers to inactivate same during certain desired times to increase security and control the use of the locker means.

The above objects of the invention as well as many other objects will become apparent when the following description is read in conjunction with the drawings, in which:

FIG. 1 is a front elevational view of a locker means comprising a row of metal lockers with a portion broken away embodying the invention,

FIG. 2 is a front elevational view of a modified form of the electrical locker means of FIG. 1 with a portion broken away,

FIG. 3 is an enlarged sectional view taken on the line 3—3 of FIG. 1 showing a form of the locking means of the invention,

FIG. 4 is a sectional view taken on the line 4—4 of FIG. 3,

FIG. 5 is an enlarged sectional view taken on the line 5—5 of FIG. 1,

FIG. 6 is a sectional view illustrating a modified form of the locking means shown in FIG. 3,

FIG. 7 is a sectional view taken on the line 7—7 of FIG. 6,

FIG. 8 is an enlarged sectional view taken along the line 8—8 of FIG. 1, illustrating the combination switch means of the invention,

FIG. 9 is a sectional view taken on line 9—9 of FIG. 8,

FIG. 10 is a perspective view of the electrical circuit board of the combination switch means shown in FIG. 8,

FIG. 11 is a front elevational view of the combination switch means shown in FIG. 8, and

FIG. 12 is a schematic illustration of the central control means of the invention.

Like reference numerals designate like parts throughout the several views.

Referring to the figures, FIGS. 1, 3, 4 and 5 disclose an electrical locker means 10 embodying the invention.

The electrical locker means 10 comprises a locker structure 12 including a plurality of lockers 14 having a supporting base 16 with a cavity 18 therein extending along and under the lockers 14. The lockers 14 are provided with respective front and rear walls 20 and 22, and side walls 24. The lockers 14 are attached to each other at approximate side walls 24 to provide a row of lockers. The front wall 20 of each of the lockers 14 may be provided with one or more doors, such as the double elongated doors 26 and 28 at the bottom and the pair of wide doors 30, 32 positioned at the top of the locker 14, one above the other and over the elongated doors 26 and 28. The doors 26, 28 respectively enclose chambers 34, 36 of elongated configuration which are particularly adapted for receiving and hanging clothing therein, while the doors 30, 32 which extend across the entire width of the locker 14 enclose respective chambers 38, 40 which may be suitable for receiving books or other such items.

The doors 26, 28 of each locker 14 are provided with hinges 42 and 44 respectively proximate to their respective side walls 24 allowing the doors to swing outwardly to their open positions and return to their closed positions butting the center frame post 46. The doors are not provided with handles but are maintained in a locked condition and released by electrically actuated locking means 48' and 48 secured with the center frame strip 46 proximate to their respective doors 26 and 28 and within their chambers 34 and 36.

The doors 30 and 32 are similarly attached by hinges 50 to swing outwardly to their open positions and about the side frame 52 of the front wall 20 in their closed positions. Similar electrically actuated locking means 54 are provided for engaging and locking the doors 30, 32 in their closed positions. The hinges 44 and 50 of the doors 26, 28 and 30, 32, respectively, may be spring loaded to move the doors from their closed to their opened positions upon being released by their respective locking means 48, 48' and 54. Of course other means, including handle means may be used for swinging the doors open.

Refer now particularly to FIGS. 3 and 4 for a description of the electrically actuated locking means 48. The locking means 48 includes a bracket 50 of rectangular tubular configuration with a pair of proximate extending ends 52 which are secured together and joined with the inwardly extending portion 54 of the center frame post 46. The bracket 50 is thus secured within the chamber 36 proximate to the door 28 which it secures in its closed position. A similar locking means 48' is secured within the chamber 34 of the locker 14 by being attached with the opposite inwardly extending portion 54 of the center frame strip 46 proximate to the door 26 for securing same in its closed position. The chambers 34 and 36 and their respective means 48' and 48 are separated by an intermediate wall 56.

The locking means 48 includes a latch 58 having a U-shaped end portion 60 which is pivotally supported within the bracket 50 by a pin 62 having ends extending through opposite sides of the bracket 50. The front portion 64 of the latch 58 is secured with the pivoted portion 60 and has a hook end 66 extending through an opening 68 in the bracket 50 towards the door 28. A coil spring 69 which is centered over locating pins on the frame 50 and portion 60 of the latch 58 is located above the pivot pin 62 and urges the hook end 66 of the latch in the downward direction. An extending end 70 of the pivot portion 60 of the latch 58 engages the bracket 50 to limit the downward motion of the hook end 66 of the latch. This terminal position is assumed by the latch 58 when it is in its deactivated position.

When the door 28 is in its opened position it may be placed in its locked condition by moving it into its closed position proximate to and engaging the edge 55 of the center frame post 46. As the door 28 approaches the post 46, the end 66 of the latch 58 extends through an opening 72 in the doubled-back edge portion of the door 28 and engages the striker plate 74 which is secured with and is spaced from the inside surface of the door 28. The striker plate 74 engages the downwardly and inwardly angled edge 76 of the latch 58 causing the end 66 to move upwardly rotating the latch 58 about its pin 62 in the counterclockwise direction. When the hook end 66 passes over the top of the striker plate 74, the latch 58 moves downwardly securely engaging the striker plate 74 as shown in FIG. 3, locking the door 28 in its closed position. The latch 58 is retained in its locked position by the action of the coil spring 69 until actuated to its releasing position by the moving of the latch in the upward direction to assume its releasing position, which action will be explained in detail below.

One or more latches 58 may be used for locking each door, and two such latches 58 are illustrated in connection with each of the elongated doors 26 and 28, one such latch 58 being positioned above the other. In the embodiment of the locker means 10, illustrated in connection with FIGS. 3 and 4, the electrically actuated locking means 48 and 48', each utilize respective electrical solenoid units 78 comprising an energizing coil 80 and armature 82 for releasing their respective pairs of latches 58. However, a separate actuating unit may be utilized for each latch, as hereinafter described in connection with FIGS. 6 and 7, where this may be desirable. The armature 82 as shown in FIG. 3 is in its de-energized position, and moves upwardly to assume its energized position shown by the dashed lines at 82'

when current is supplied to the solenoid coil 80 of the unit 78.

The solenoid unit 78 is secured with the base 16 within its cavity 18 under and in alignment with the latches 58 of its locking means 48. A release bar 84 of the locking means 48, is provided with a U-shaped cross section and receives within it at its lower end 86 the upper end 88 of the armature 82 of the solenoid 78. The upper end 88 of the armature 82 is provided with an horizontally extending pin 90 which engages a notch 92 in the lower end 86 of the release bar 84. The release bar 84 extends upwardly, through an opening 94 in the horizontal walls 96, 98 of the base 16 and the locker 14, into the chamber 36. The bar 84 also passes through the pair of vertically aligned brackets 50 of the locking means 48. The bar 84 is provided with and extends through one or more guide brackets 100 which position the bar 84 while permitting it to move in the upward and downward directions. The release bar 84 extends through the brackets 50 in front of the pivoted portion 60 and along side the front portion 64 of the latches 58. The release bar 84 is provided with rearwardly extending tabs 102 proximate to each of the latches 58. When the solenoid unit 78 is energized and its armature 82 moves in the upward direction to its energized position, the tabs 102 respectively engage their latches 58 and actuate same to move their hook ends 66 in the upward direction opposing the action of their coil springs 69 and placing them in their released positions. With the latches 58 disengaging their striker bars 74, the door 28 is released and moves to its open position under the action of its spring loaded hinges 44. Upon the subsequent deactivation of the solenoid unit 78, the latches 58 are returned to their deactivated or locking positions in preparation for again locking the door when the door is placed in its closed position.

In order to activate the locking means 48 for releasing its respective door, each door or combination of doors which are to be simultaneously controlled, is provided with a lock control means 104. The lock control means 104 may comprise a combination switch means 106 as illustrated in connection with the locker 14 of FIG. 1, or the lock control means 104 may be in the form of a key actuated switch 108 as illustrated in connection with the modified form of lockers shown in FIG. 2 or any other suitable locking device. In the case the key switch 108, the actuation of the switch 108 by its key, closes an electrical circuit allowing energization of the solenoid unit 78 for releasing the door which it controls. In the case of the combination switch means 106, a predetermined combination of numbers must be dialed to close the electrical energizing circuit for releasing the corresponding door. An embodiment of the combination switch means 106 is illustrated in FIGS. 8 thru 11 inclusive, to which reference will now be made for a detailed description thereof.

The combination switch means 106 has a supporting means 110 comprising an L-shaped member 112 with a front vertical wall 114 and a horizontal bottom portion 116, and a pair of vertical side walls 118 and 120 secured therewith.

The front vertical wall 114 is provided with a plurality of openings 122 therethrough, each of which rotatably receives and supports a shaft or stem element 124. In the case of the combination switch means 106 illustrated, three stems 124 are utilized, although more or less may be provided. The rear end 126 of each stem

124 is of enlarged diameter and abuts the inside surface of the vertical wall 114. A detent disc 128 and a U-shaped switch contact element 130 are secured at the end 126 of the shaft 124 for rotating therewith. The detent disc 128 is provided about its periphery with a plurality of detents 132 corresponding to the number of predetermined angular positions for the stem 124 of the switch means 106. A detent ball 134 is receivable into the detents 132 of the plate 128 under actuation from a coiled spring 136 housed within the guide sleeve 138. In the embodiment illustrated, twelve detents 132 are provided corresponding to twelve switch positions, as shown by the numeral 140 on the face plate 142 of the switch means 106 in FIG. 11. The contact element is U-shaped having a contact terminal at each end and is preferably made of a resilient metallic material for exerting contact pressure upon a circuit board 144 and providing a good electrical connection between contact terminals 145 on said board 144.

The circuit board 144 for the switch means 106 comprises a rigid insulated sheet 146 of material bearing on its surface 147, the contact terminals 145 comprise a plurality of pairs of conductive terminals 148a, 148b, 150a, 150b and 152a, 152b. The terminals 148b, 150b are electrically connected by a conductor 154, while the terminals 150a and 152b are connected by a conductor 156. The terminal 148 is connected by a conductor 158 to a board output terminal 160 along one side edge of the board 146, while the terminal 152a is connected by a conductor 162 to a board output terminal 164 at the opposite edge of the board 146. The electrically conducting contact and output terminals and connectors may be affixed to the surface 147 of the sheet 146 in any of the well known ways, including circuit board printing techniques.

The circuit board 144 is removably retained within spaced parallel grooves 166 in the side walls 118 and 120 of the supporting means 110. The circuit board 144 may be removed by sliding it in the upward direction out of the supporting means 110. Another circuit board 144 may then readily be replaced in the supporting means 110. When the circuit board 144 is fully seated in its downward position, its bottom edge is also received in a groove 168 in the bottom horizontal portion 116 of the supporting member 112. In this position, the circuit board output terminals 160 and 164, respectively engage contact elements 170 and 172 which connect with electrical circuit leads 174a and 174b.

The electrical combination switch means 106 is secured with the locker 14 so that the front ends 176 of its stems 124 extend through and beyond the front surface of the front wall 20 of the locker 14. As illustrated in FIG. 1, a combination switch 106 is positioned on the frame structure 178 of the front wall 20 just above the top of each of the locker doors 26 and 28. The frame structure 178 is provided with an opening 180 for each of the stems 124. The switch means 106 is secured, such as by screw means 182, with the frame structure 176. A front plate 142 bearing the switch position numerals 140 is also provided with openings 184 and is received over the front surface of the frame structure 178 with its openings in alignment with the openings 180. The knobs 186 are secured with the extending front ends 176 of the stems 124 and keyed to the shafts in the well known manner for properly aligning the pointer means of each knob to correctly indi-

cate the corresponding switch positions of the stems 124.

In order to energize a lock means 48, 48' of a particular locker door 26, 28, its combination switch means 106 must have its knobs 186 rotated to provide its predetermined combination. Thus, the circuit board 144 shown in FIG. 10, requires that the left hand knob 186 as seen in FIG. 11, be rotated to the numeral 8, while the center knob is positioned to the numeral 5 and the right hand knob is turned to the numeral 1. With the knobs set in such positions, an electrical circuit is completed by the respective contact elements 130 which respectively engage the pairs of contact terminals 148a, 148b, 150a, 150b, and 152a, 152b completing a circuit between the output terminals 160 and 164. Since each circuit board 144 may be removed and interchanged, the combination for each such switch means 106 may readily be changed when a locker is reassigned, or at any other desirable time. The combination numerals for each circuit board 144 is indicated in its upper left hand corner at 188 and can be seen when the board 144 is removed and replaced by authorized personnel. The closing of the circuit by the switch means 106, provides energization from a source (not shown) to the locking means 48 with which it is associated thereby energizing its electrical unit and releasing the particular locker door controlled by the switch means 106.

A lock control means 104 may be effective for controlling one or more doors, thus the switch means 106 over the door 26 may be effective for concurrently releasing the doors 26 and 30, while the switch means 106 over the door 28 may act to concurrently release the doors 28 and 32 when its combination is dialed. Of course a separate lock control means 104 may be provided for each of the doors of the locker structure 12, if desirable, or any other combination of concurrently actuated doors may be provided for control by a single control means 104.

The electrical locker means 10 is provided with a mechanical release means 190 for activating the latches 58 of the locking means 48, 48', in the event of an electrical power failure. The mechanical release means 190 includes a release shaft 192 of square cross section (see FIGS. 1 and 5) which is rotatably mounted within the cavity 18 of the base 16 and extends under each of the lockers 14. A lever 194 is attached to the shaft 192 at its end 196, while a plurality of radially extending arms 198 are attached to the shaft 192 at spaced intervals therealong. Each of the arms 198 is proximate to the bottom of the armature 82 of the solenoid unit 78 of a respective electrically actuated locking means 48 and 48'. As illustrated in FIG. 3, the front of the base 16 is provided with an opening 202 through which the end of a tool 204 can be received from outside of the locker means 110 for engaging and displacing the lever 194 causing the shaft 192 to rotate in the clockwise direction as indicated by the arrow 200 in FIG. 5. The rotation of the shaft 192, moves each of its arms 198 in the clockwise direction from a first inactive terminal position to a second releasing position. Each of the arms 198 when thus rotated, causes the upward movement of its associated armature 82, actuating same from its deenergized to its energized position. This movement of the armature 82, is transmitted by its release bar 84 to the latches 58 of its locking means 48, 48'. With the movement of the latches 58 into their released positions, the doors associated therewith are released and

assume their opened positions. The mechanical means, thus provided, is particularly desirable for emergency use, or at times when it is necessary to release all of such doors by local manipulation rather than at a remote central location.

Although the mechanical release means has not been illustrated in connection with the electrically actuated locking means 54 associated with the top doors 30 and 32, a similar system may also be adapted for electrically and mechanically locking and releasing such doors, whether this be done concurrently or separately from the toperation of the lower doors 26 and 28. For security purposes the opening 202 may be closed by a movable member 206 positioned behind the opening within the cavity 18. The member 206 is secured with the rotatable portion of a lock 208 which is attached to the front wall of the base 16 providing for external access thereto for key operation. The member 206 may thus be removed from its position covering the opening 102 by authorized personnel for operating the mechanical release means 190, after which the opening 202 may again be restricted to prevent unauthorized access.

As schematically illustrated in FIG. 12, the electrical locker means 10 may be controlled at a central remote location by a central control 210 which is electrically connected with the locker structure 12 comprising a plurality of lockers 14. The central control 210 provides, either individual or concurrent energization over the lines 212 to one or more selected lock control means 104. The central control may thus, selectively remove energization or provide energization at different times during the day to control access to the lockers by their users, or may provide energization to only certain selected lockers at one or more locations to control their use. The users may operate the lock means of their lockers for releasing the locked door only when energization is present over the lines 212 to the lock control means 104. The doors, however, may be locked by the user even in the absence of energization over the lines 212.

The central control 210 is also provided with one or more lines 214 for selectively directly energizing one or more or all of the electrically actuated locking means 48, 48', for releasing the doors of the locker structure 12 from a remote location. Thus by by-passing the locally manipulated lock control means 104, such doors may readily be released for inspection, cleaning and for removal of articles, when such lockers are reassigned, or when they should not be in use. As an example, where such lockers are used in schools, all of the doors may be opened for inspection, and cleaning at the end of the school term prior to reassignment of lockers. The circuit boards for the combination switch means 106 may also readily be changed in preparation for new assignments. The locker control means can be deactivated at certain times during the day and night when access is not to be permitted, thereby increasing security. The central control 210 for the locker structure 12 is thus of great convenience, increasing the efficiency and effectiveness of managing such lockers, and avoiding the time and effort required for individually unlocking lockers, especially when all of such lockers must be opened.

Refer now to FIGS. 6 and 7 which disclose an electrically actuated locking means 216 which is a modified form of the locking means 48. The locking means 216 is identical to the locking means 48, except that its sole-

noid unit 218 is positioned within its bracket 50' for directly actuating its latch 58'. The solenoid unit 218 may be provided with spring means incorporated there-within (not shown) for normally urging the end 220 of its armature 222 in the direction towards the hook end 66' of its latch 58. The end 220 of the armature 222 is pivotally secured at 224 with the back portion 60' of the latch 58' extending above the pivot pin 62'. In the deactivated condition the solenoid 218 thus acts to move the hook end 66' of the latch 58' in the downward direction similar to the action of the spring 69 of the locking means 48.

Upon electrical actuation of the solenoid 218, the armature 222 is drawn against the action of its spring means into the solenoid unit 218 in the direction away from the end 66' of the latch 58'. This results in the pivotal action of the latch 58' about its pin 62' and the upward movement of the hook end 66' of the latch 58'. The locking means 216, thus, provides a self-contained latching unit in which each latch 58' is provided with a proximately located solenoid unit 218 which electrically controls the release action of the latch 58'. Such locking means 216 may be utilized in place of or in combination with the locking means 48, 48' and 54 previously described in connection with the electrical locker means 10.

While the invention has been described and illustrated with reference to several specific embodiments, it is to be understood that the invention is capable of many various other modifications and applications, while not departing essentially from the spirit thereof, which will become apparent to those skilled in the art.

I claim:

1. An electrical locker means including a locker structure having a chamber, door means having open and closed positions for controllably enclosing said chamber, and electrically actuated locking means having locked and released positions for locking said door means in its closed position and controllably releasing said door means for placing same in its open position, said locker structure having top and bottom portions and front, rear and side walls, the front wall of said structure including said door means intermediate its top and bottom portions, said door means being hingedly secured with said structure, said locking means including a latch having a first normal position and a second activated position supported by said structure and an electrical latch actuating unit, said latch when in its first position engaging and locking said door means in its closed position while releasing said door means when in its second position, said latch actuating unit upon energization actuating said latch to its second position and when deenergized allowing said latch to assume its first normal position, and including a lock control means for controllably electrically energizing said latch actuating unit for releasing said locking means, said locker structure being provided with a base having a cavity therein at its bottom portion, the latch of said locking means being positioned intermediate the top and bottom portions of said structure and said electrical latch actuating means including a solenoid unit secured with said structure within the cavity of its base, said solenoid unit having an armature which has a first deenergized position and a second energized position, the armature of said solenoid unit when in its second position actuating said latch to its second re-

leasing position, said lock control means including release means for controllably allowing mechanical actuation of the armature of said solenoid unit from its first position to its second position for releasing said locking means.

2. The electrical locker means of claim 1 in which the base of said locker structure is provided with an opening in its front communicating with its cavity positioned proximate to the armature of said solenoid, and said lock control means includes an movable element having a first locked position enclosing the opening of said base and a second open position allowing the receipt of a tool through the opening from outside of said structure for mechanically actuating the armature of said solenoid unit from its first position to its second position for releasing said locker means.

3. The electrical locker means of claim 2 in which said locking means includes a vertically extending and movable release bar attached at its bottom with the armature of said solenoid unit for being moved upwardly when the armature is actuated from its first position to its second position, said release bar extending proximate to the latch of said locking means and actuating said latch from its first position to its second position when the armature of said solenoid unit is actuated from its first to said second positions, and including spring means for actuating said door means from its closed position to its open position upon its release by said locking means.

4. An electrical locker means including a locker structure having a chamber, door means having open and closed positions for controllably enclosing said chamber, and electrically actuated locking means having locked and released positions for locking said door means in its closed position and controllably releasing said door means for placing same in its open position, said locker structure having top and bottom portions and comprising a plurality of attached lockers each locker having front, rear and side walls, the lockers being secured together at proximate side walls to form a row of lockers, the front wall of each of said lockers being provided with at least one hinged door enclosing a chamber therewithin, said locking means providing each locker with a latch supported by said structure having a first normal position for engaging said door and a second activated position and an electrical latch actuating unit, said latch when in its first position engaging and locking said door in its closed position while releasing said door when in its second position, said latch actuating unit upon energization actuating said latch to its second position releasing said door and when deenergized allowing said latch to assume its first normal position, and including lock control means for controllably activating said solenoid unit for releasing said locking means, said locker structure being provided with a base at its bottom portion having a cavity therein extending along the row of lockers, the latch for each of said lockers is being positioned intermediate the top and bottom portions of said structure and its electrical latch actuating means includes a solenoid unit secured with said structure within the cavity of said base, said solenoid unit having an armature which has a first energized position and a second deenergized position, the armature of said solenoid unit when in its second position actuating its latch to its second releasing position, said lock control means including means for controllably allowing mechanical actuation of the

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armature of said solenoid unit from its first position to its second position for releasing said locking means.

5. The electrical locker means of claim 4 in which the lock control means includes a release shaft rotatably mounted within the base of said structure and extending along its cavity provided with a lever and a plurality of radially extending arms spaced along said shaft each respectively proximate to the armature of one of said solenoids, said shaft being rotatable by actuation of its lever between first and second angular positions, the arms of said shaft respectively actuating the armatures of said solenoids to their second energized positions for manually releasing said latches when said shaft is ro-

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tated to its second position.

6. The electrical locker means of claim 5 in which the base of said locker structure is provided with an opening in its front communicating with its cavity positioned proximate to the lever of the shaft of said lock control means, and said lock control means includes a movable element having a first locked position enclosing the opening of said base and a second position allowing the receipt of a tool through the opening from outside of the structure for engaging the lever and rotating the shaft of said lock control means for releasing the doors of said lockers.

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