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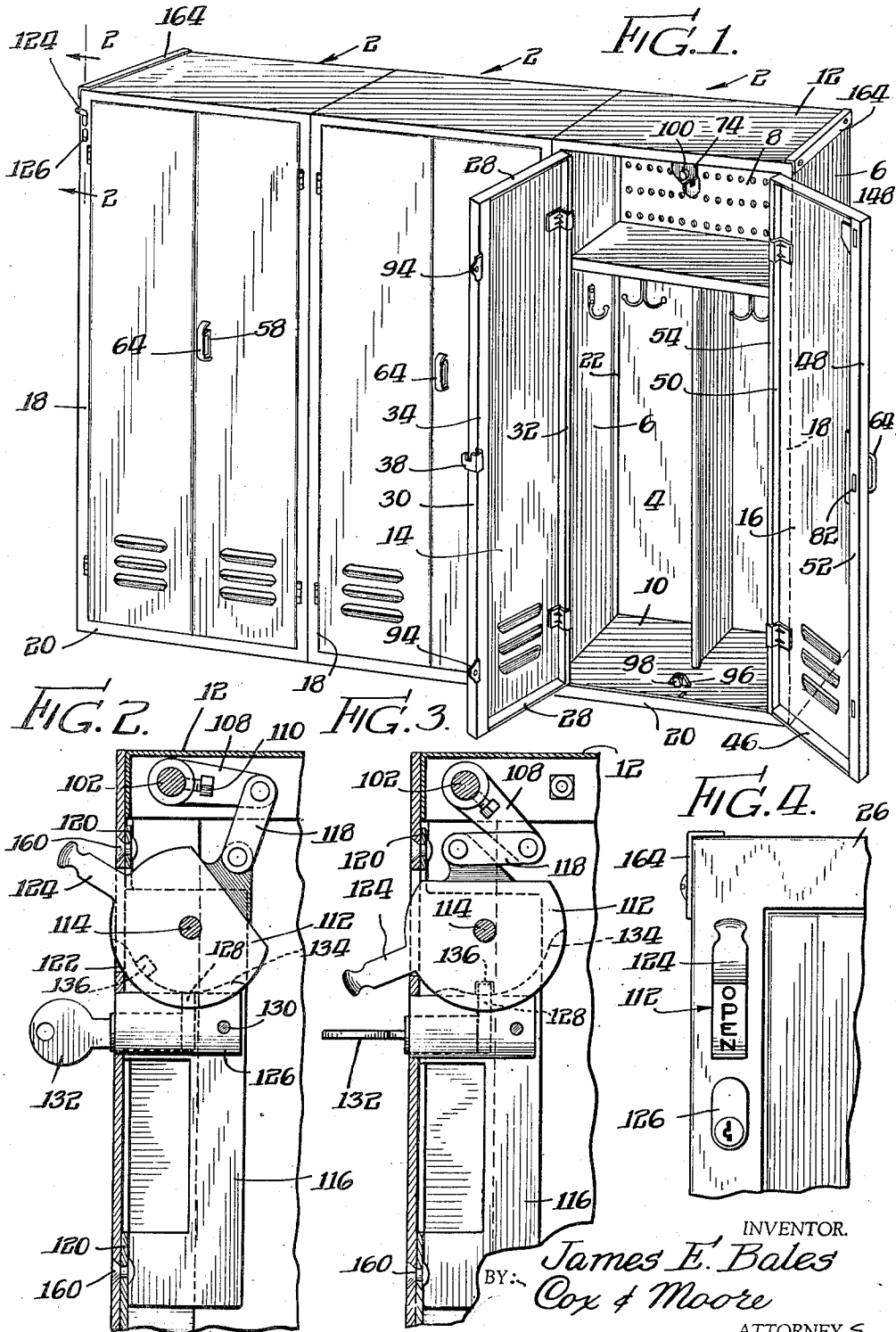
J. E. BALES

2,227,803

LOCKER WARDROBE

Filed June 25, 1938

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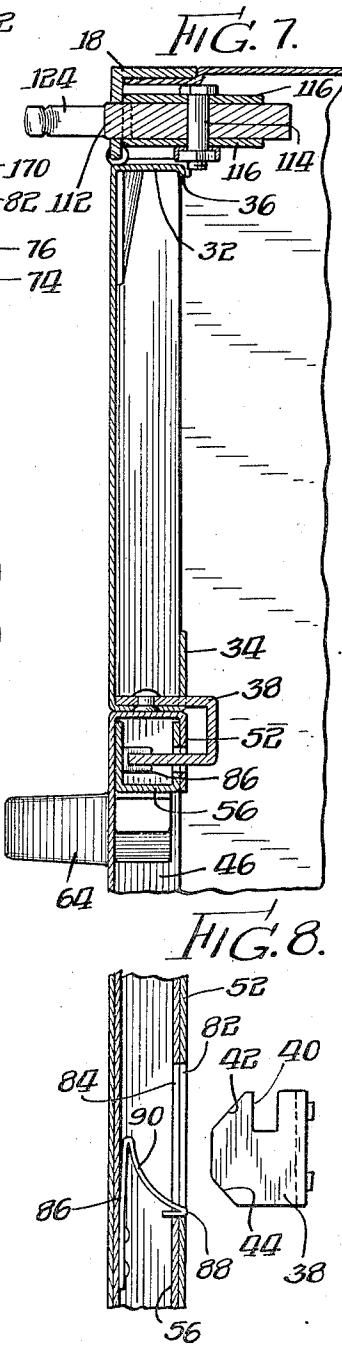
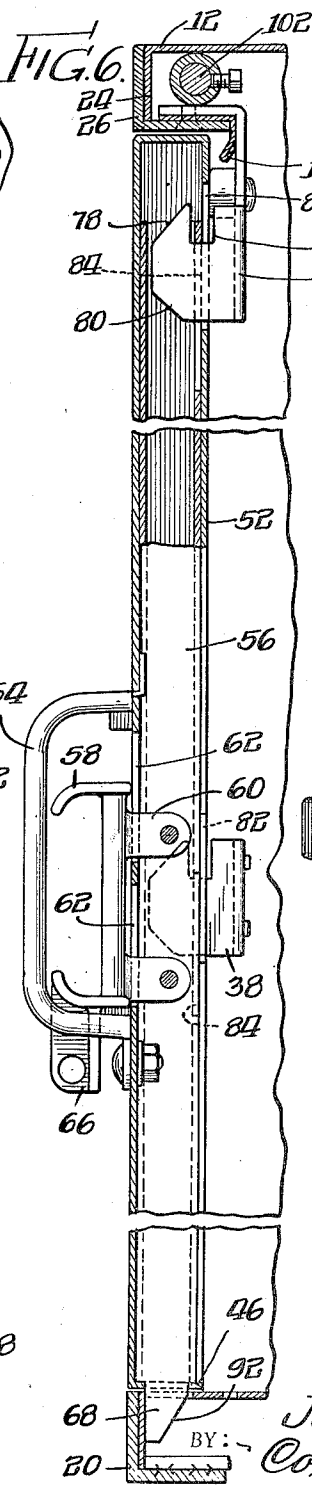
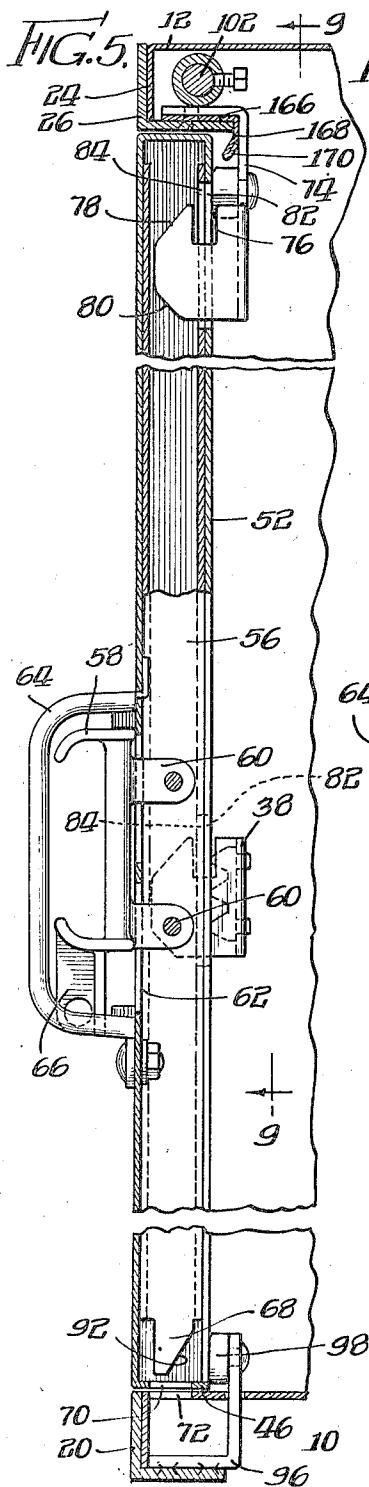
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LOCKER WARDROBE

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3 Sheets-Sheet 2



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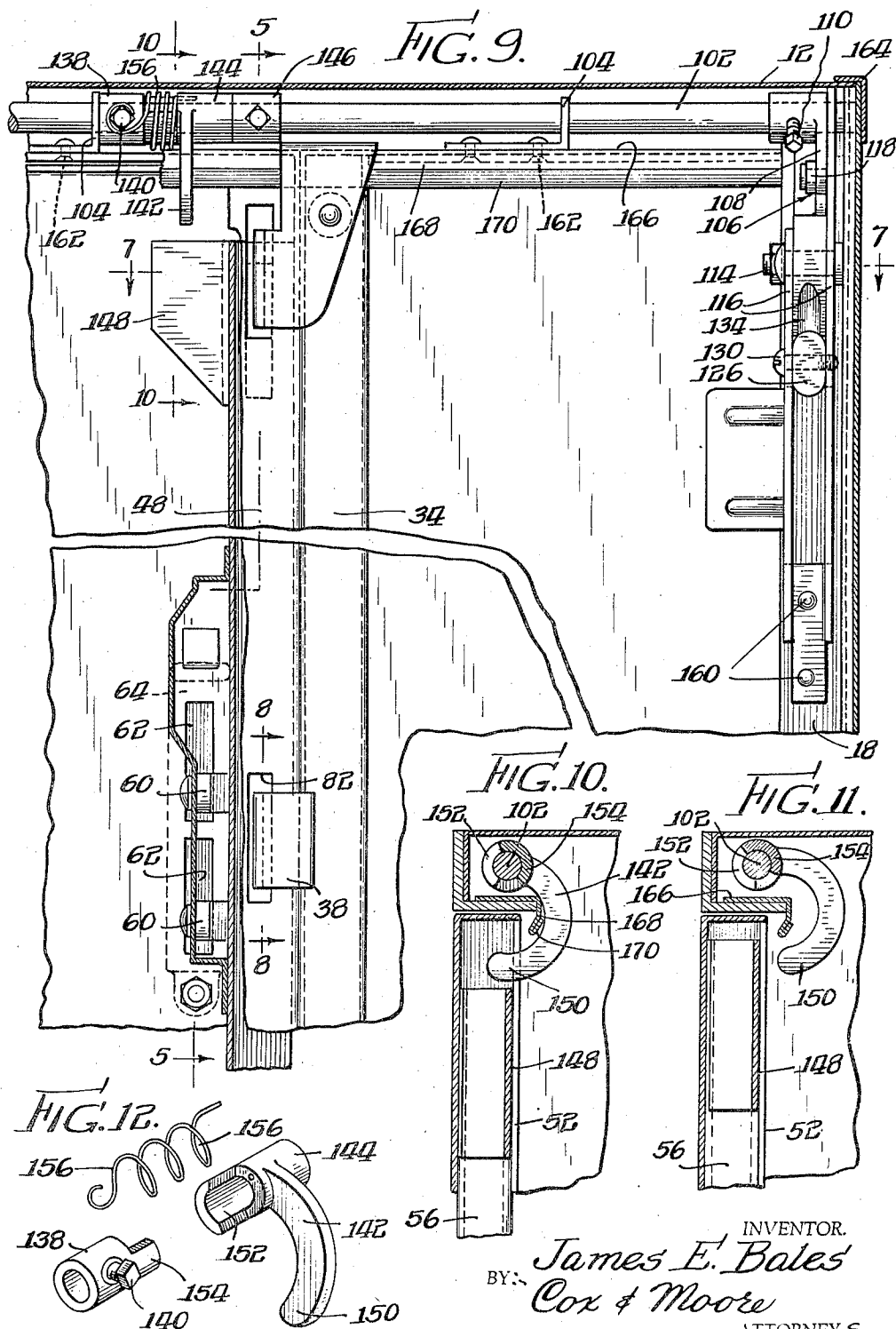
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LOCKER WARDROBE

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UNITED STATES PATENT OFFICE

2,227,803

LOCKER WARDROBE

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5 Claims. (Cl. 70—262)

This invention relates in general to a locker, and more particularly to a wardrobe having a plurality of locker compartments provided with a common, or group, locking control means.

An important object of the invention is to provide simplified, inexpensive gang locking means of rugged construction and comprising a minimum number of parts of relative simplicity from the manufacturing standpoint, which may be assembled complete outside the locker or wardrobe and then placed in position as a complete unit within the lockers just prior to the placing of the top to complete the assembly of the locker or wardrobe.

Another object of the invention is to provide a gang locking mechanism for the several doors of a locker or wardrobe having a plurality of compartments wherein the locking mechanism may be moved to locking position while any or all of the doors are open and wherein such open doors may subsequently be closed and thereupon automatically locked in closed position by said locking mechanism.

Another object of the invention is to provide a locker or wardrobe having a gang locking mechanism wherein the key controlled locking element is mounted or housed within the structure and readily accessible for operation thereof externally of the wardrobe or locker, and wherein the locker element is automatically operative upon manual manipulation of the locking mechanism into latching position to lock the mechanism against operation in the latch releasing direction.

Applicant's invention further contemplates the provision of a gang locking mechanism in a device of the character described, in which the key controlled locking element is preassembled with the gang locking mechanism as a unit, which may then be assembled with the locker or wardrobe just prior to the placing of the top to complete the locker or wardrobe assembly.

A further object of the invention is to provide in a wardrobe having a gang locking mechanism of the character described, simple, inexpensive means for preventing release of any of the doors by tampering with the individual locking control elements as by means of a thin tool inserted between the door and the door frame.

These, and numerous other objects and advantages, will be apparent from the following description when taken in connection with the accompanying drawings, wherein:

Fig. 1 is a perspective view of a locker or ward-

robe having a gang locking system embodying the invention.

Fig. 2 is a fragmentary, vertical section taken along the line 2—2 of Fig. 1.

Fig. 3 is a view similar to Fig. 2 but showing the elements of the locking mechanism in a different position of operation.

Fig. 4 is an enlarged fragmentary view in vertical elevation of the upper, left-hand corner of the wardrobe and showing the location of the control means for the locking mechanism.

Figs. 5 and 6 are enlarged fragmentary views in vertical section taken substantially along the line 5—5 of Fig. 9, showing the construction and operation of the individual latching mechanism for each of the locker doors.

Fig. 7 is a fragmentary view in horizontal section taken substantially along the line 7—7 of Fig. 9.

Fig. 8 is a fragmentary view in vertical section taken substantially along the line 8—8 of Fig. 9 but with the door in a partially open position.

Fig. 9 is a fragmentary view in vertical section taken substantially along the line 9—9 of Fig. 5.

Figs. 10 and 11 are fragmentary vertical sections taken substantially along the line 10—10 of Fig. 9 and showing the manner in which an individual latching mechanism is held in latched position and released therefrom for movement to an unlatching position.

Fig. 12 is a detail view in perspective of one of the individual locking members, the remaining ones of said members being of identical construction.

For purposes of illustration there is shown in the drawings a series of lockers 2 which may be formed as separate units arranged and secured in abutting relation to form a multiple locker or wardrobe assembly, or it may comprise a single unit providing a plurality of separate compartments having common dividing walls between adjacent compartments. In either event there is provided a plurality of compartments 4 defined between spaced, opposed side walls 6, a rear wall 8, a bottom wall 10 and a top wall section 12, and a pair of doors 14 and 16 hinged to vertical frame members or angle bars 18, or to the side walls 6 for a swinging movement in opposite directions.

The bottom wall 10 may be formed by a sheet metal plate secured to a horizontally extending angle bar 20. The opposite side walls may be formed by sheet metal plates secured, as by welding, to the rearwardly extending flanges of the opposite frame bars 18 and to the rearwardly

extending and depending flanges (not shown) of the plate forming the bottom wall 10. The rear wall 8 may be similarly formed of a sheet metal plate secured along its inwardly turned flanges 22 to the plates forming the opposed side walls 6. The top wall 12 comprises a plate of sheet metal provided with opposed depending flanges of which the forward flange 24 only is shown. The top wall 12 is secured to the rear wall 8 in any desired manner, as by bolts or rivets passing through the rearward depending flange of the top wall or by welding said flange to the rear wall 8. The front flange 24 contactingly interfits with the vertical flange of a horizontal angle bar 26 which extends between the vertical frame members 18.

The usual shelves, partitions and hangers may be provided in the interior of each compartment as desired.

The door 14 is provided with upper and lower, inwardly extending flanges 28 and opposed side flanges 30 and 32, the flange 30 being provided with a relatively extended, reversely bent portion 34 spaced from, and extending parallel to, the door panel. The flange 32 is provided with a short, reversely bent portion 36 (Fig. 7) for strengthening purposes.

The latch keeper 38 of generally U-shaped configuration in horizontal cross section has one leg thereof passing through a slot in the reversely bent portion 34 of the flange 30 and secured to said flange in any desired manner, as by riveting or welding, to the inwardly extending portion of said flange. The opposite leg of the keeper 38 is provided with a latch receiving notch 40 and the oppositely inclined cam surfaces 42 and 44.

The door 16 is similar in construction to the door 14, being provided with the inwardly extending upper and lower flanges 46 and opposed side flanges 48 and 50. The flange 48 is provided with a relatively long, reversely bent portion 52 extending parallel to the door panel and the flange 50 is provided with a relatively short, reversely bent strengthening flange 54 (Fig. 1).

A latch bar 56 comprises a channel iron mounted between the door panel and the reversely bent portion 52 of the flange 48 with the base of the channel iron closing the open side of the channel formed by the door panel and the flange 48.

The latch bar is guided in its vertical movements by the engagement of the opposed flanges of the channel iron with the door panel and the reversely bent portion 52.

A finger operated member 58, positioned externally of the door 16, is provided with lugs 60 passing through slots 62 in the door panel and secured to the base flange of the latch bar. A handle 64, secured to the door panel, is provided with a slot through which passes the locking lug 66 which is adapted to receive a padlock by means of which unauthorized manipulation of the latching bar may be prevented. The lower end of the latch bar 56 is provided with a latch finger 68, which, when the latch is in its lowermost position, passes through a slot 70 in the lower door flange 56 and through a slot 72 in the base plate 10. A latch keeper 74 is secured to, and depends from, the inwardly turned flange of the upper horizontal frame member 26 and is provided with a latch receiving notch 76 and oppositely inclined cam surfaces 78 and 80 identical to the cam surfaces 42 and 44 of the keeper 38.

The reversely bent portion 52 of the door flange 48 is provided with spaced slots 82 and the latch

bar 56 is provided with similarly spaced slots 84, which, when alined with the slots 82, permit the keepers 38 and 74 to be projected into the latch bar. The weight of the latch bar is such that when the latch bar has been raised and the keeper is projected thereinto the force of gravity will cause the latch bar to drop down with its innermost side flange in latched position within the latch receiving notches 40 and 76 of the latch keepers, as shown in Fig. 6. A spring or strip of resilient material 86 is mounted within the latch bar, being secured to the outer side flange of the latch bar and extending into the lower keeper receiving slot 84 in the opposed flange of the latch bar.

When the latch bar is in lowered position its spring 86 is maintained in the compressed condition by the engagement of its end 88 with the inner surface of the reversely bent portion 52 of the door flange 84. When the latch bar 56 has been moved to its uppermost position to free the door 16 from the keeper 38 on the door 14, and from the fixed keeper 74, the lower slot 84 of the latch bar 56 becomes alined with the lower slot 82 in the flange portion 52 and the spring 86 thereupon expands and projects its end 88 outwardly into the slot 82 and into engagement with the lower edge of said slot whereby the latch bar is held in released position.

The spring strip 86 is provided with a concave portion or surface 90 facing the free edge of the keeper 38 and adapted to be engaged by the cam surface 44 of the keeper 38 when the door is moved to closed position, so that the spring is compressed and the latch bar is released for downward movement under the action of gravity to engage the keepers 38 and 74. The cam surfaces 42 and 78 of the keepers 38 and 74, respectively, cooperate with the upper edges or walls of the slots 84 automatically to move the latch bar upwardly into proper latching position if for any reason the latch bar is in its lower position when the door is moved from an open position to its closed position.

The inclined cam surface 92 of the latching finger 68 acts against the upper edge of the lower frame member 20 automatically to move the latch bar 56 upwardly into proper keeper receiving position if for any reason the bar should be in its lower position when the door is moved from an open position to its closed position.

The door 14 is provided with upper and lower brackets 94, L-shaped in cross section, secured to the door flange 40. Similarly to the keeper 38, these brackets are secured to the door flange 30 and are provided with cushioning pads or buttons adapted to engage the reversely bent flange 52 of the door 16 when the latter is moved into closed position in alinement with the door 14. A similar bracket 96 is secured to the lower frame member 20 or projects into the compartment 4 through a suitable slot in the base plate 10 and is similarly provided with a pad or button 98 of cushioning material for engaging both of the reversely bent flanges 34 and 52 when the doors are moved to closed position. The keeper 74 is similarly provided with a cushioning pad or button 100 for engaging said flanges.

As shown in Fig. 1 for purposes of illustration, the wardrobe comprises three lockers 2 arranged in abutting relation and secured together in any desired manner, as by bolts or rivets passing through abutting wall plates 6.

It will be apparent, however, that the wardrobe may be composed of a greater or less num-

ber of units and instead of forming the units separately the wardrobe may be formed of a single unit comprising a plurality of compartments separated by common wall portions.

5 The latching mechanism includes a locking means comprising a rod 102 substantially equal in length to the overall length of the wardrobe, this rod being journaled in spaced angle brackets 104, and an end bracket 106. A lever or crank 108 is adjustably secured to the rod 102 as by means of a set screw 110. A disk-like controlled operating member 112 is journaled on a pin or bolt 114 carried by the spaced flanges 116 of the brackets 108 (see Fig. 9) and is drivingly inter-
10 connected with the crank 108 by means of a link 113 pivotally connected at its opposite ends to said crank and to the disk-like controlled member. The bracket 106 is formed with vertically spaced mounting flanges 120 (Fig. 2). The disk-like member 112 extends partially through an opening 122 in the vertical frame member 18 and is provided with a finger or handle 124 preferably formed integrally therewith and extending outwardly of the slot 122.

25 The periphery of the fragmental, disk-like member 112 is inscribed, or otherwise marked, with suitable indicia representative of the setting of the rod 102. For example, below the finger or handle 124 the word "Open" (as seen in Fig. 4) is marked on the periphery of the disk-like member, while above the finger or handle the periphery of the disk-like member is inscribed or marked with the word "Locked."

A barrel lock 126, which may be of any conventional construction providing a normally extending locking plunger 128, is secured to the flanges 116 of the bracket 106 by means of a bolt, screw or the like 130, and projects through an opening in the vertical frame member 18 just
40 beneath the disk-like member 112. The key 132 provides means for retracting the plunger 128 from its normal locking position.

The disk-like member 112 is provided with a peripherally extending or arcuate guide groove 134 receiving the upper edge of the housing of the barrel lock 126, said groove thereby forming a guide for said disk-like member 112 so that a radial opening or groove 136, extending inwardly from adjacent the forward edge of the groove 134, may be properly positioned to receive the locking plunger 128 when the disk-like member is rotated in a counterclockwise direction to the position shown in Fig. 3. It will be understood that in accordance with the present invention
55 it is contemplated preferably that the locking means for engaging the disk-like member against an unauthorized manipulation be of such a type as to lock automatically when the disk-like member, and accordingly the rod 102, is set in locking position. This construction therefore permits the disk-like member to be freely manipulated to locking position while at the same time causing automatic interlocking when this position is reached.

65 A collar or sleeve 138, adjustably secured to the rod 102 by a set screw 140, is placed in abutting relation to certain ones of the brackets 104 to restrain the rod against endwise movement in one direction, the rod being restrained against
70 endwise movement in the opposite direction by the hub of the lever 108. A locking finger or hook 142 is provided with a hub 144 loosely receiving the rod 102 and held thereon against endwise displacement by an adjustable sleeve or collar 146. The latch bar 56 carries at its upper

end an integrally formed lug or flange portion 148 which is so arranged as to lie immediately under the forwardly projecting end 150 of the hook or latch 142 when the associated door is in closed position (as seen in Fig. 10) so that upward movement of the latch bar to unlatch the doors is prevented.

The hub 144 of the hook 142 is provided with an axially extending abutment 152 somewhat less than 180 degrees in angular extent. The collar or sleeve 138 is similarly provided with an axially extending abutment 154, also somewhat less than a semicircle in angular extent. A coil spring 156 is secured at one end to the collar 138 and at the other end to the hub 144 of the hook 142 to urge the hook in a clockwise direction (as seen in Figs. 10 and 11) into door locking position. This connection of the hook 142 to the rod 102 permits the hook to be moved in a counterclockwise direction about the rod when engaged by the inward face of the lug or flange portion 148 during movement of the door to closed position after the rod 102 has been set in door locking position.

Movement of the hook out of door locking position is accomplished by the engagement of one face of the abutment 154 with the abutment 152 when the rod 102 is adjusted in a counterclockwise direction by oscillation of the disk-like member 112 coincident with the lifting of the finger or handle 124. To set the hook into door locking position the rod 102 is rotated in a clockwise direction by the depression of the finger or handle 124, the rod 102 shifting the collar 138 and the spring 156 causing the hook 142 to follow the movement of the collar 138.

It will be understood that a hook 142, a collar 138 and spring 156, arranged as described, are provided for each door, and are spaced longitudinally of the rod 102 so that each finger 142 overlies the laterally extending lug or flange portion 148 formed at the upper end of each latch bar 56.

The multiple or gang locking mechanism comprising the rod 102, the spaced brackets 104, the bracket 106, the crank 108, the disk-like member 112, the link 113, the lock 126, the several collars 138, the collars 146, the several locking fingers 142 and the several springs 156 are preassembled as a unit and subsequently placed in position upon the inwardly directed flanges of the several upper frame members 26 prior to the placing of the top sections 12.

The bracket 106 is secured to one flange of the left-hand vertical frame member 18, as by means of rivets 160, or by welding, and the brackets 104 are secured to the several upper frame members 26 as by suitable screws, bolts, rivets or the like 162. The top sections 12 are then placed in position with their forward flanges 24 contacting or abutting the inner face of the vertical flange of each upper frame member 26 (see Fig. 5) and angle brackets 164 are then secured to the outer walls 6 at the ends of the composite structure with their horizontal flanges overlying the outer edges of the top sections.

If desired, the top sections 12 may each be provided with a depending flange extending longitudinally at its rear edge by means of which the top section may be bolted or riveted to the rear wall 8 of each compartment.

In order to prevent unauthorized release of the locking fingers or hooks 142 by means of a tool inserted between the upper edges of the doors and the upper frame members, a covering member 166 is provided. This member preferably comprises a metal strap secured to the horizontal

flange of each upper frame member 26 and having a depending flange 168 inclined forwardly at its lower edge and reinforced by its reversely bent edge 170. The flange 168 of each lock protective member 166 is located forwardly of each locking finger 142 so that any tool inserted between the upper edge of the door and the door frame cannot be brought into contact with the locking finger in such a manner as to move it rearwardly or counterclockwise against the tension of the spring 156.

Obviously, individual latch bar locking means, such as a conventional padlock, may be supplied for each locker and inserted through the opening in the depending lug 66 so as to prevent lifting of the latch bar 56.

From the foregoing description it will be understood that the present invention provides simplified, inexpensive and rugged gang locking means which may be assembled complete outside the lockers and placed in position as a complete unit just prior to the placing of the top to complete assembly of the locker, which locking means is provided with means for preventing tampering with the individual locking control elements.

Changes may be made in the form, construction and arrangement of the parts without departing from the spirit of the invention or sacrificing any of its advantages, and the right is hereby reserved to make all such changes as fairly fall within the scope of the following claims.

The invention is hereby claimed as follows:

1. In a cabinet construction having a plurality of walls forming a plurality of locker compartments, doors for said compartments, and latching mechanism for said doors, a disk-like member rotatably mounted within said cabinet at one end thereof, means connecting said member to said latching mechanism to vary the setting thereof in response to the rotation of said member, one wall of said cabinet having an opening therein, said disk-like member being rotatable about an axis parallel to said wall having a portion of its circumference visible through said opening, a radial projection extending outwardly from said disk-like member through said opening for manually manipulating said member and means extending within said cabinet and engageable with said disk-like member for automatically locking said latching mechanism against unauthorized manipulation.

2. In a cabinet construction having a plurality of walls forming a plurality of locker compartments, doors for said compartments, and latching mechanism for said doors, a disk-like member rotatably mounted within said cabinet at one end thereof, means connecting said member to said latching mechanism to vary the setting thereof in response to the rotation of said member, one wall of said cabinet having an opening therein, said disk-like member being rotatable about an axis parallel to said wall having a portion of its circumference visible through said opening, a radial projection extending outwardly from said disk-like member through said opening for manually manipulating said member, said disk-like member having a radial slot extending inwardly from the circumference thereof and an annular guide groove extending peripherally of said member, a lock having an enclosing barrel arranged tangentially of the annular periphery of said disk-like member forming a guide engaging said guide groove and an automatically projectable latch element received in

said radial slot for automatically locking said member and said latching mechanism against unauthorized manipulation, said lock being secured to said wall and providing a forwardly accessible key-hole means in alignment with said opening.

3. In a cabinet construction forming a plurality of locker compartments with doors on said compartments and latching means for locking all of said doors, a lock construction conveniently accessible for locking said latching means and being mounted on an upstanding wall of said cabinet, said wall having an elongated slot, a disk-like member, said disk-like member being mounted for rotation behind said wall about an axis parallel to the plane of said wall and extending laterally of said slot, said disk-like member having a portion of its arcuate periphery extending opposite said slot and having a projecting finger portion extending outwardly of the slot for manually manipulating said disk-like member, said disk-like member being operatively connected to said latching means for control thereof, and a barrel lock construction extending rearwardly from said wall into substantial tangency with the annular periphery of said disk and member and comprising detent means cooperable with said annular periphery at a predetermined point for locking the disc against rotation, said wall being provided with an aperture in alignment with said barrel and providing access to key-hole means in said barrel, said aperture also being in juxtaposition to said slot and in substantial alignment with the longitudinal axis of said slot.

4. In a cabinet construction including a plurality of locker compartments, doors for said compartments, latching means for said doors, and an oscillatory bar extending through all of said compartments and having a plurality of spaced fingers for preventing or permitting the operation of said latching means dependent upon the setting of said bar, the combination of means for varying the setting of said bar comprising a disk-like member rotatably mounted within said cabinet and having a projecting finger portion extending outwardly of the wall of the cabinet for manual manipulation of said member and means connecting said member to said oscillatory bar, and locking means for locking the disk-like member against unauthorized manipulation when said bar is set in locking position while permitting free manipulation of said member to set said bar in locking position from the open position, said locking means comprising a barrel lock including a key-hole in one end thereof, said barrel lock being positioned so as to dispose the barrel tangentially adjacent the annular periphery of said disk-like member with the key-hole end extending into an aperture in said cabinet wall located so as to place the keyhole in juxtaposition to said finger and in alignment with its plane of manipulation.

5. In a cabinet construction having a plurality of walls forming a plurality of locker compartments, doors for said compartments, latching means for said doors, and an oscillatory bar extending through all of said compartments and having a plurality of spaced fingers for preventing or permitting the operation of said latching means dependent upon the setting of said bar, the combination of a disk-like member rotatably mounted within said cabinet at one end thereof, means connecting said member to said bar to vary the setting thereof in response to the rota-

tion of said member, means comprising a radial projection extending outwardly from said member through one of the walls of said cabinet and movable with said disk member for rotating said member, and means extending within said cabinet for automatically locking said member against unauthorized manipulation, said last-named means comprising a barrel lock having its axis aligned substantially in the plane of said

disk and projecting inwardly from the wall into substantial tangency with the annular periphery of said disc-like member, said barrel means extending into an aperture on said wall aligned in juxtaposition to said radially projecting member and being provided on the end extending into said wall with keyhole means.

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