

April 26, 1938.

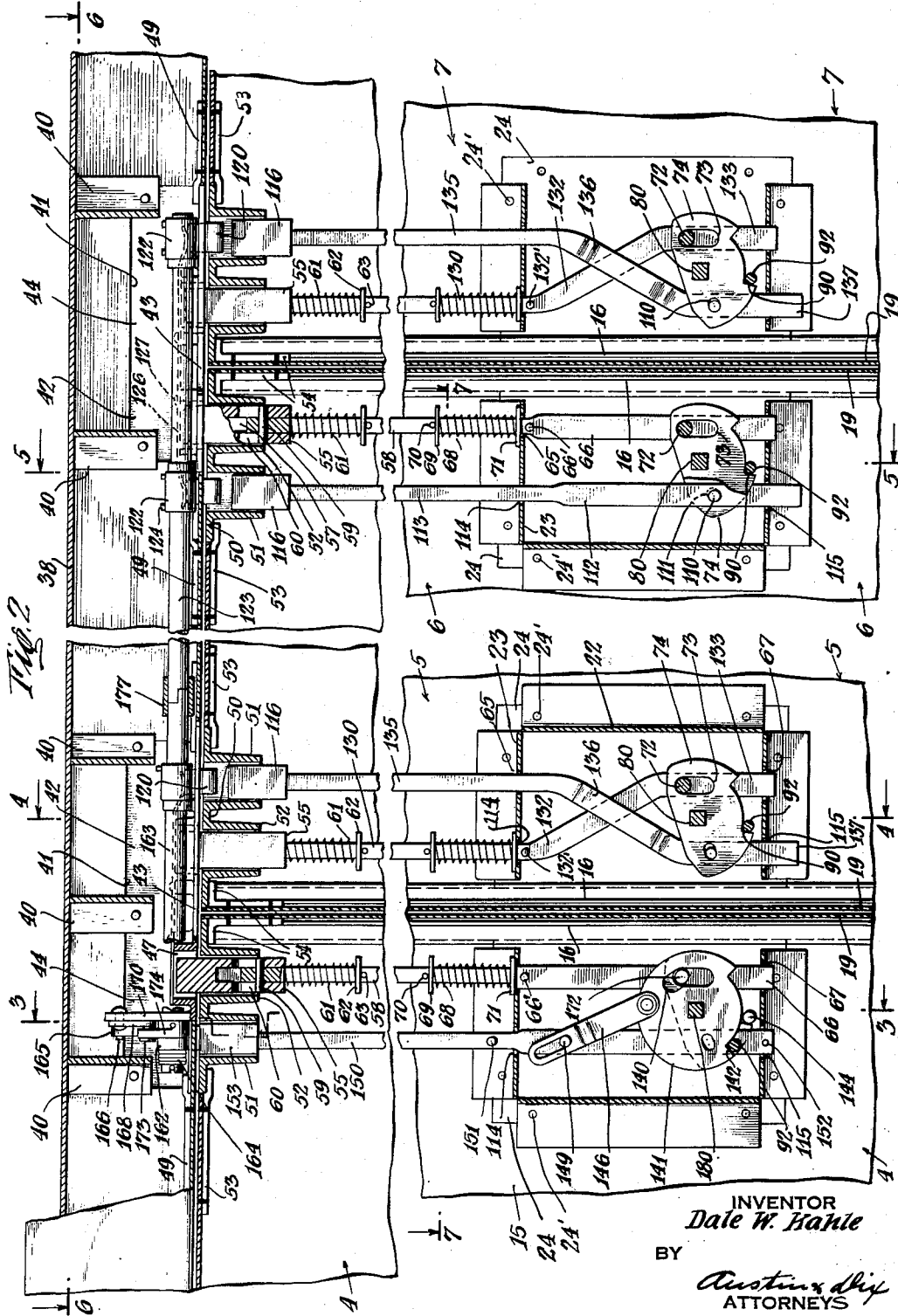
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2,115,422

LOCKING MECHANISM

Filed Feb. 27, 1936

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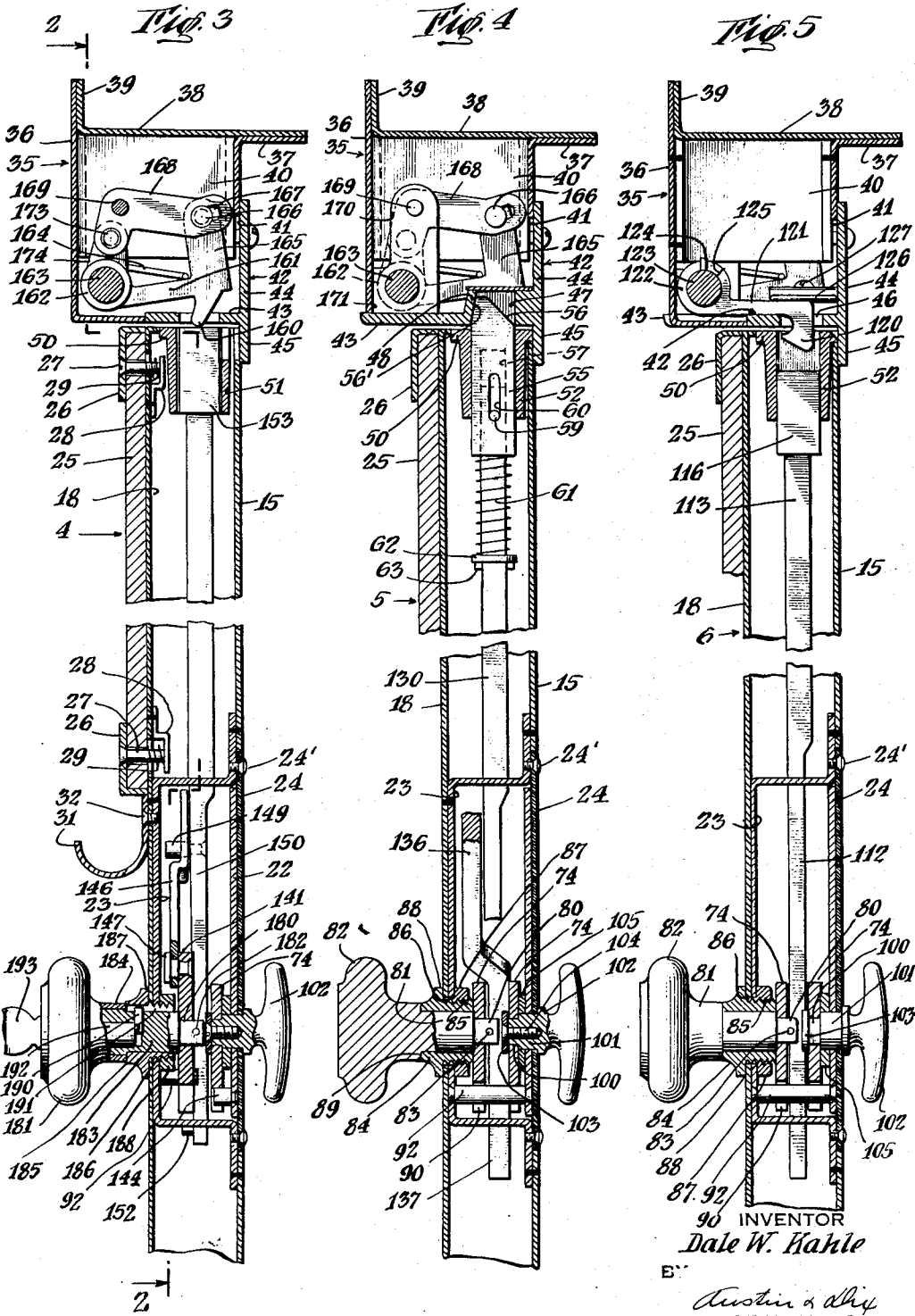
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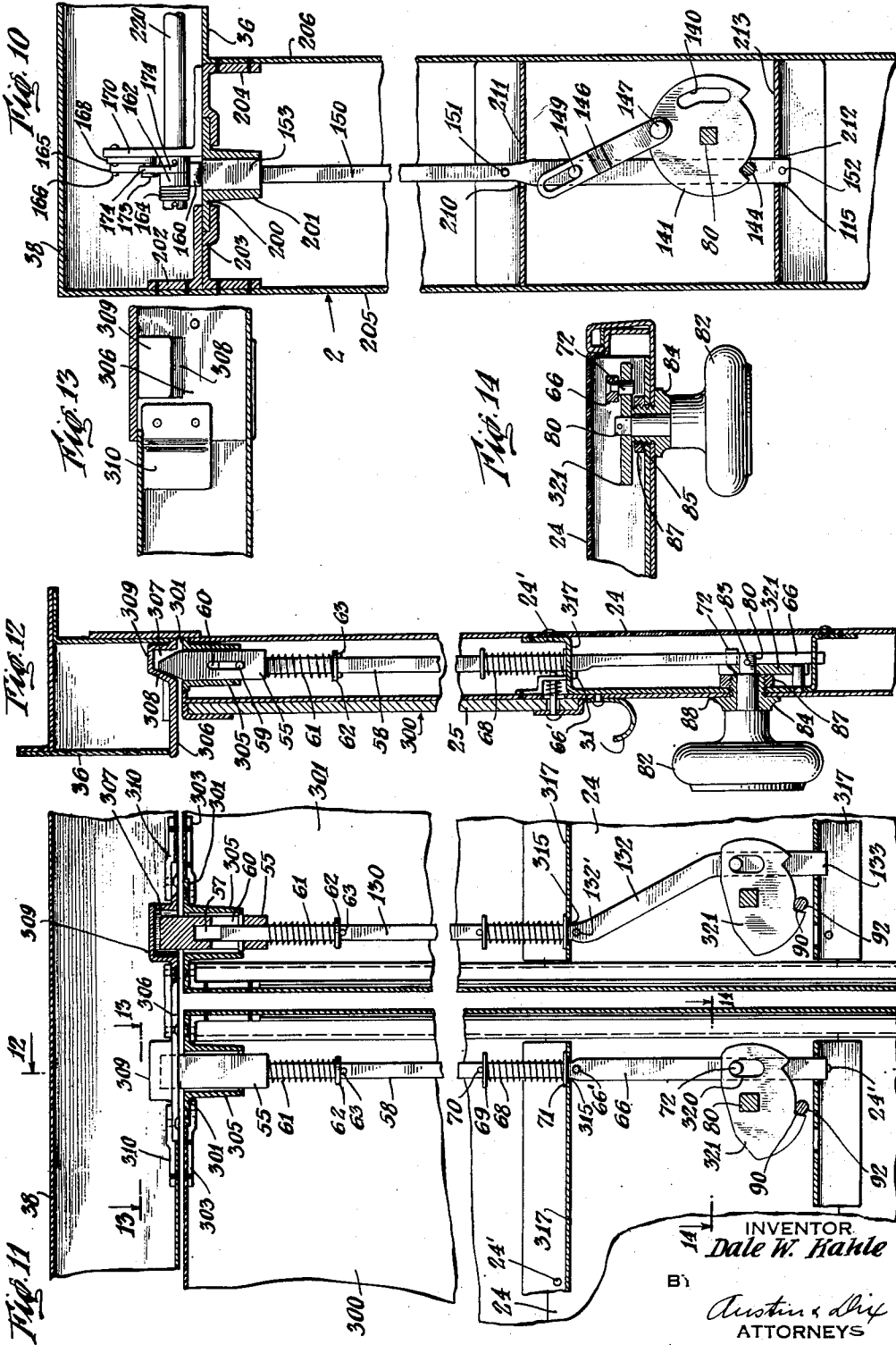
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LOCKING MECHANISM

Filed Feb. 27, 1936

5 Sheets-Sheet 5



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LOCKING MECHANISM

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This invention relates to locking mechanisms, and particularly to a multiple locking mechanism adapted to secure one or more movable members, such as doors, in locked position.

5 In accordance with the invention, an individual locking member is associated with each closure and all of the locking members are interconnected by a suitable mechanism, whereby the operation of all of the locking members can be effected simultaneously. A release mechanism may be associated with each locking member for releasing the latter independently of the connecting mechanism. Each closure also may be provided with an independently operable latching mechanism for latching the closure when the locking mechanism is unlocked, and the latching mechanism may be interconnected with the corresponding lock-releasing mechanism for release thereby when the latter is actuated to release the locking member.

15 The individual lock-release mechanisms and latching mechanisms for all of the closures may be generally similar, and may be applied to either a right or left-hand operated door with only minor changes in structure. The lock-release mechanism and latching mechanism for each door may be so connected to a suitable manipulating member that a similar movement of any of the manipulating members will effect similar operations of the corresponding mechanisms whether on a right or left-hand door. The locking members may be detachably interconnected whereby any desired number of these members may be selected from stock and connected according to the number of closures to be locked.

25 The present invention provides a multiple locking mechanism especially suitable for use in a structure of the schoolroom wardrobe type wherein a plurality of doors are mounted for movement into alignment to form a substantially continuous wall-like surface. The mechanism is so designed and constructed that it operates in a simple manner and with a minimum of resistance, and thereby may be operated readily by small children. Also, the mechanism is adapted to be substantially entirely enclosed and concealed within the doors and associated portions of the building, thus protecting the mechanism and preventing unauthorized tampering therewith.

50 The invention also provides a locking mechanism which may be constituted by a minimum number of different stock parts, and principally of parts such as bars, rods, castings, stampings and the like which can be formed in an economical manner with a minimum of machining or

other relatively expensive operations, and which parts are so formed that they can be easily assembled and adjusted with a minimum of difficulty and expense.

Although the novel features which are believed to be characteristic of this invention will be particularly pointed out in the claims appended hereto, the invention itself, as to its objects and advantages, and the manner in which it may be carried out, may be better understood by referring to the following description taken in connection with the accompanying drawings forming a part thereof, in which:

Fig. 1 is a front elevational view showing a wardrobe embodying the present invention;

Fig. 2 is a fragmentary vertical cross-sectional view taken along line 2—2 of Fig. 3, and showing the locking and latching mechanisms for the doors;

Fig. 3 is a transverse vertical cross-sectional view taken along line 3—3 of Fig. 2;

Fig. 4 is a view similar to Fig. 3 taken along line 4—4 of Fig. 2;

Fig. 5 is a view similar to Fig. 3 taken along line 5—5 of Fig. 2;

Fig. 6 is a horizontal cross-sectional view taken along line 6—6 of Fig. 2;

Fig. 7 is a view similar to Fig. 6 taken along line 7—7 of Fig. 2;

Fig. 8 is a fragmentary sectional view showing a portion of the structure of Fig. 2 in another operative position;

Fig. 9 is a perspective view showing a portion of the rock shaft and a portion of its operating mechanism;

Fig. 10 is a fragmentary vertical cross-sectional view showing a modified form of the invention wherein the control mechanism is mounted on the door jamb;

Fig. 11 is a fragmentary vertical sectional view similar to Fig. 2, only showing another embodiment of the invention, wherein the doors are provided with latching mechanisms but not locking mechanisms;

Fig. 12 is a vertical cross-sectional view taken along line 12—12 of Fig. 11;

Fig. 13 is a horizontal cross-sectional view taken along line 13—13 of Fig. 11; and

Fig. 14 is a horizontal sectional view taken along line 14—14 of Fig. 11.

Referring more particularly to Fig. 1, the invention is disclosed as embodied in a wardrobe of the schoolroom type, wherein a plurality of doors are mounted in adjoining relation so as to constitute, when closed, a substantially continuous wall

or closure for a recess in a building wall. However, it will be understood that the construction shown is merely illustrative of a number of uses to which the invention may be adapted.

5 The wardrobe may be constituted by a recess 1 in a building wall provided with a surrounding frame or jamb 2. The space 1 may be closed by a plurality of doors 4, 5, 6 and 7, each of which may be swingably and slidably mounted by a radius member 8 attached to a bracket 9 secured to the door, and pivotally supported by adjustable pivots 10 and 11. Each door, preferably, carries a guide stud 12 adapted to ride in a guide track 13 for guiding the door between open and closed positions.

10 The doors all may be identical, but preferably they are arranged in pairs of "right-hand" and "left-hand" doors. However, one or more additional doors may be provided, preferably at the ends of the series of doors. The right-hand doors are arranged to swing and slide from the right into closed position, and the left-hand doors operate in the opposite direction, and the doors may be similar in construction except in the details which make them right-hand or left-hand doors. In the illustrative example, doors 4 and 6 are left-hand doors, and 5 and 7 are right-hand doors.

15 Referring to Figs. 3 and 7, each door may include a metal plate 15 having forwardly directed flanges 16 formed with seats 17, and a second metal plate 18 having rearwardly directed flanges 19 formed with bent-over edges 20 adapted to rest against the seats 17, respectively, and to be retained, as by strips 21, preferably welded to the seats 17. Extending between and abutting the plates 15 and 18, is a Z-member 22 which may be flash-welded to the plates 15 and 18 to secure the latter in spaced alignment. The door may be assembled by securing the Z-member to one or the other of the plates, and thereafter telescoping the plates together with the edges 20 riding in the grooves between the strips 21 and the seats 17, whereafter the Z-member is flash-welded to the other plate. A U-member 23 may be secured to the plates 15 and 18 adjacent the Z-member 22, providing, with the latter, means for attaching and guiding the latching and locking mechanisms hereinafter described, and also means for reinforcing the door. Further reinforcing may be provided by a channel (not shown), disposed between and secured to the plates 15 and 18 adjacent the longitudinal centre thereof. Access to the interior of the door may be had through an opening in the plate 15, which opening may be closed by a detachable plate 24 secured, for example, by screws 24'.

20 Each door may carry a blackboard section 25, received at its upper end in a clip 26 secured to the plate 17 by a screw 27 passing through the clip 26, the blackboard section 25 and the plate 18, and threaded into a clip 28 secured to the plate 18. A coil spring 29 may be provided for cushioning the blackboard section 25 to prevent cracking thereof. The lower portion of the blackboard 25 may be secured in an analogous manner, and a chalk tray 31 may be secured adjacent the lower bracket 26 by screws 32, and an eraser tray 33 attached below the chalk tray.

25 Referring to Fig. 3, the frame or jamb 2 may be constituted by a tubular element 35 comprising a U-member 36 having a flange 37 secured to an L-member 38, which in turn has a flange 39 secured to the U-member 36. The members 36 and

38 may be secured together and reinforced by a plurality of channel sections 40.

The member 36 may be provided with an opening 41 for receiving a jamb plate 42 having forwardly projecting portions 43, an upwardly projecting rear wall 44, and a downwardly projecting door abutment portion 45. Referring to Fig. 6, each jamb plate 42, preferably, has a pair of lock openings 46 and a pair of latch openings 47; and a wall 48, having an inclined portion, may extend upwardly around each opening 47. Each jamb plate 42 may be secured to the member 36 by clips 49 secured, as by welding, to the lower wall of the member 36.

Secured in the upper wall of each door adjacent one edge is a door plate 50 having a pair of depending tubular sleeve portions 51 and 52, defining wall-like recesses, in the door. Clips 53 and 54 are secured to the door, as by welding, for attaching the door plate 50 thereto.

20 Referring to Fig. 4, the sleeve 52 slidably receives a latch bolt 55 having a tapered end 56 formed with an inclined front wall 56', adapted to bear against the wall portion 48 for latching the door 5 and preventing rattling thereof when closed. The bolt 55 has a recess 57 slidably receiving the end of a latch rod (58 on doors 4 and 6; 130 on doors 5 and 7), carrying a pin 59 slidable in slots 60 in the bolt 55. The bolt 55 is urged away from the rod 58 by a spring 61 bearing against a collar 62 secured on the rod 58 by a pin 63.

25 Referring to Fig. 2, the latch rod 58 extends through an opening 65 in the upper flange of the U-member 23, and has a flattened portion 66 extending through an opening 67 in the lower flange of the U-member 23. The rod 58 is urged upwardly by a spring 68 bearing against a collar 71 seated on the member 23, and against a collar 69 seated against a pin 70 extending through the rod 58. A pin or stud 66' may be provided for limiting the movement of the rod 58.

30 The latch rod 130 carries a pin 72 extending through a slot 73 in a pair of spaced lever plates 74. Referring again to Fig. 4, the front lever plate 74 may be carried on a squared extension 80 integral with a front knob 82, and may be secured thereto by a cotter pin 83. The knob 82 has a cylindrical portion 81 received in a sleeve 84 having a threaded portion 85 extending through an opening 86 in the door and secured to the door by a nut 87. The sleeve 84 has a shoulder 88 abutting the outer face of the door, and the knob 82 has a shoulder 89 bearing against the end of the sleeve 84. The front lever plate 74 is angularly movable by the knob 82, and is provided with a shoulder 90 adapted to abut against a stop pin 92 secured to the members 22 and 23.

35 The rear lever plate 74 is carried on a squared extension 100 of a rear knob 102 having a cylindrical portion 101 extending to the rear of the door. The plate 74 is retained by a washer 103 and a screw 104 threaded into the knob 102, and a spacing washer 105 spaces the lever plate 74 from the rear wall of the door.

40 The rear lever plate 74 has an opening 110 receiving a pin 111 secured to the flattened portion 112 of a release rod 113. The rod 113 extends through openings 114 and 115 in the member 23, and carries at its upper end a head or bolt 116 slidable in the sleeve 51.

45 The head 116 is adapted to engage a locking dog 120 having a cylindrical portion 122 loosely mounted on a rock shaft section 123, and angularly movable by the shaft through the agency 75

of a lost motion connection comprising a pin 124 rigid with the shaft and slidable in a slot 125 in the cylindrical portion 122. A double-ended leaf spring 126 is secured by screws 127 to the jamb plate 42, and urges the end of the locking dog into the sleeve 51.

The operation of the locking and latching mechanism for the door 6, thus far described, is as follows: Assuming the door 6 to be closed and the locking dog 120 to be retracted out of the sleeve 51, the door may be unlatched by rotating the knob 82 in a clockwise direction (as viewed in Fig. 2). This action causes the front lever plate 74 to be rotated clockwise to depress the pin 72 and move the latch rod downwardly against the force of spring 68 to withdraw the bolt 55 from engagement with the wall 48, and the door may be opened. When the knob 82 is released, the spring 68 returns the bolt to its extended position.

When the door is moved from open to closed position, the inclined rear surface of the bolt 55 causes the bolt 55 to be cammed downwardly against the force of spring 61 until the door is fully closed, whereupon the bolt enters the opening 47 and lies snug against the wall 48.

Assuming the door to be closed and locked, the locking dog will be projected into the sleeve 52 by the spring 126; hence the rotation of the knob 82 will release only the latch and the door cannot be opened from the outside. However, the door may be opened by rotating the rear knob 102 in a clockwise direction (as viewed in Fig. 2). Upon rotation of the handle, the rear lever plate 74 is similarly moved and causes the rod 113 to be moved upwardly to cause the head 116 to force the dog 120 out of engagement with the guide 52, thus unlocking the door. Since the locking dog 120 has a lost connection with the shaft section 123, the latter is not rocked when the dog 120 is forced upwardly by the head 116. Simultaneously, the rear lever plate 74 causes the rod 58 to be depressed and the latch bolt 55 to be withdrawn from the lock plate.

Thus, the door may be simultaneously unlatched and unlocked from the rear side by the operation of handle 102, hence permitting anyone who has been accidentally locked in the wardrobe to open the door whether the same is both locked and latched or only latched. The latching and locking mechanisms on the remaining doors are not actuated.

The locking and latching mechanisms for the right hand doors 5 and 7 may be generally similar to the mechanism described in connection with the door 6. However, the door plates and corresponding portions of the jamb plates are reversed with respect to the corresponding mechanisms for the left hand door 6. In order to provide for this reversal without necessitating a reversal of the direction of movement of the knobs, the operating rods are crossed instead of parallel as in the left hand door 6.

Referring to Fig. 2, the latch operating rod 113 may extend through the opening 114 in the member 23 and may have an inclined portion 132 and a straight portion 133 extending through the opening 67. The release rod 135 for the locking dog 120 extends through the opening 65 in the member 33 and may have an inclined portion 136 and a straight portion 137 extending through the opening 115. Thus a clockwise movement of the rear lever plate 74 causes the rod 130 to be depressed and the rod 135 to be raised. Move-

ment of the rod 130 may be limited by a pin 132'.

The latching mechanism for the lock door 4 may be generally similar to that on the latch door 6. However, the front plate 141 is somewhat different in construction from the rear plate 74. The front plate 141 is provided with an angular slot 140 for receiving the pin 172 and has a shoulder 142 adapted to abut a stop pin 144. A link 146 is connected at one end by pivot pin 147 to a lever plate 141 and has a slot at the other end receiving a pin 149 secured to rod 150. The rod 150 extends to openings 114 and 115 in member 23 and is provided with pins 151 and 152 for limiting its vertical movement.

The head 153 on rod 150 engages the nose 160 of a lever 161 having a cylindrical portion 162 loosely mounted on a rock shaft section 163. The lever 161 is urged in a counter-clockwise direction (as viewed in Fig. 9) relative to the shaft section 163 by a spring 164. The lever 161 has an upstanding arm 165 carrying a pivot pin 166 slidable in a slot 167 in a crank lever 168 pivoted by a pin 169 journaled in a stationary bracket 170. The bracket 170 may have provided a supporting portion 171 secured to the lock plate 43. The other end of the lever 168 may be connected by a link pin 173 to a lever 174 having a collar portion mounted on the shaft section 163 and non-rotatably secured by a pin 175.

The shaft section 163 may be coupled to the shaft section 123 by providing each section with a half round end and securing them in driving engagement by a sleeve 177 and co-operating screws 178. Where additional doors (not shown) are to be locked from the knob 181, an additional shaft section (not shown) may be connected to the other end of section 123 in a similar manner.

Referring to Fig. 3, the front lever plate 141 is carried on a squared portion 180 of a front knob 181 of the lock type and may be secured by a cotter pin 182. Integral with squared portion 180 is a cylindrical portion 183 which is received in a handle portion 184, and which extends through a sleeve 185 having a threaded portion 186 projecting through the door and clamped thereto by a shoulder portion 187 and a nut 188, threaded thereon.

A bolt 190 is slidable in the cylindrical portion 183 and is reciprocable into and out of a slot 191 in the sleeve 185 by a plug 192 angularly movable in the portion 183 under the influence of a key 193 cooperating with tumblers (not shown). For convenience in description, the members operatively connected between and associated with the knob 181 and the rock shaft section 163 may be designated as the lock control mechanism.

The operation of the latching and locking mechanism for the lock door is as follows: Referring to Fig. 8, wherein the mechanism is shown in unlocked position and also Fig. 2, it will be seen that rotation of the front knob 181 in a clockwise direction depresses the latch rod 58 to retract the latch bolt 55 in the manner previously described. Similarly, rotation of the handle 102 from the inside of the door will also retract the latch.

The door is locked by rotating the front knob 181 in a counter-clockwise direction (into the position shown in Fig. 2) whereupon the key is turned to move the bolt 190 into the slot 191 and thus prevent rotation of the knob 181. When the knob is rotated counter-clockwise as described, it actuates the link 146 to raise the lock rod 150

and thus the head 153 forces the lever 161 in a counter-clockwise direction (as viewed in Fig. 3).

Referring to Fig. 9, upward movement of the lever 161 against the force of the spring 154 causes the crank lever 163 to be moved in a clockwise direction to thereby move lever 174 in a counter-clockwise direction, carrying with it the rock shaft section 163. Rotation of the rock shaft section 163 causes the dog 120 to be depressed into engagement with the door plate 53 to thus lock the door 5.

Actuation of the rock shaft section 163 also causes the rock shaft section 123 to be rotated in a similar direction, and thus moves all connected locking dogs into locking position. The latch doors 5, 6 and 7 are thereby locked, and can only be unlocked from the inside by actuating the respective near knobs 102.

The lock door 4 is locked by reason of the knob 181 being locked against movement, thus preventing actuation of the latching mechanism from the outside of the door. The door 4 may be released from the inside, however, by actuating the knob 102, which retracts the latch bolt 55 in the manner above described. When the latch bolt 55 is retracted, the door 4 may be opened since there is no locking dog engageable with the door 4, and the sleeve 51 and adjacent portion of the door 4 are cut away to permit the nose 160 to pass out of the door when the door is opened.

When the lock door 4 is unlocked, the action of the spring 164 and the weight of the control mechanism cause the rod 150 to drop to its lower position, thus rotating the lever plate 141 to its unlocked position. The spring 164 also causes lever 161 to rotate into unlocked position, and the locking dogs 120 are all raised out of engagement with their corresponding door plate against the force of their springs 126.

Inasmuch as the locking dogs 120 have limited angular movement on their respective rock shaft sections 123, the latch doors each may be closed individually after the locking dogs have all been moved to locking position. Thus, it is not necessary to close all of the doors before actuating the locking mechanism.

The mechanism for controlling the locks may be located on the frame or jamb 2 instead of on one of the doors. Referring to Fig. 10, a jamb plate 200 having depending sleeve 201 may be supported on the vertical portion of the frame 2 by clip members 202, 203 and 204. Lock release head 153, similar to that described above, may be provided and carried on upper end of the operating rod 150, extending through openings 210 and 212 in plates 211 and 213, respectively, secured to the upstanding portions 205 and 206 of the frame 2. The operating rod 150 may be actuated from a knob (not shown) having a shank 83 driving a lever plate 141, which in turn drives a link 146 cooperating with a pin 149 on the rod 150. The lever plate 141 is adapted to stop against a stop pin 144 suitably supported by the frame 2.

The operating head 153 is adapted to engage a nose 160 of an operating mechanism similar to that shown in Fig. 9 and connected to a rock shaft section 220 which may be connected to an adjacent rock shaft section (not shown) in a suitable manner, such as that described above.

It will be seen that, upon rotation of the knob (not shown) in a counter-clockwise direction, the lever plate 141 will be rotated correspondingly to cause the link 146 to elevate the rod

150 and actuate the operating mechanism, thereby rotating the rock shaft section 220 in a direction to move the locking dogs (not shown) into engagement with their respective doors (not shown). A suitable lock (not shown), similar to that described above and shown in detail in Fig. 3, may be provided for retaining the knob (not shown) in locked position.

Where the locking mechanism is mounted on the frame, all of the doors may be latch doors similar to the doors 5, 6, and 7 of Fig. 1, and may be operated in a similar manner; preferably, a suitable number of right-hand and left-hand doors, as desired, being provided.

Although the locking mechanism shown in Fig. 10 is shown as constructed of parts similar to the corresponding parts forming the locking mechanism shown in Figs. 2 and 3, it will be obvious that simplifications of certain of the members may be made, if desired; however, where a number of wardrobes are to be manufactured, some of which have the locking mechanism on the frame and some on the door, it may be desirable to use similar parts, thus reducing the number of differently formed parts required.

A latching mechanism, generally similar to that described in the foregoing, may be used independently on latch doors which are not intended to be locked, or which have other types of locking mechanism.

Referring more particularly to Figs. 11 to 14, there is shown right-hand door 301 and left-hand door 300, generally similar to the doors previously described, and each is provided with a latch bolt 55 slidable in a door plate 301 secured to the door by clips 303 and 304, and having a single sleeve 305. Each bolt 55 is adapted to enter a jamb plate 306 having a latch opening 307 surrounded by an inclined side wall 308 and a cover wall 309. The jamb plates 306 may be generally similar to those previously described, and may be secured to the jamb 2 by clamp plates 310 in an analogous manner.

The latch bolt 55 of the left-hand door 300 is actuated by a rod 58 extending through openings 315 and 316 in a channel 317, and carries a pin 72 entering a slot 320 in a lever plate 321, carried on the squared portion 80 of the knob 82.

The construction of the right hand door 301 is generally similar to that of the left hand door except that certain of the parts are reversed. However, the lever plate 322 is similar to the lever plate on the left hand door 300 and in order to provide for actuation of the latch bolt 55 by a similar movement of the knob 82, a latch rod 130 may be provided and may have an angular portion 132 and a straight portion 133 extending through an opening 325 in the channel 217. Thus the latch rod 130 co-operates with the right hand side of the lever plate 321. The latches shown in Figs. 11 to 14 are actuated similarly to those above described. Rotation of either knob 82 in a clockwise direction rotates the lever plate 321 and depresses the corresponding rod (58 or 130) and retracts the corresponding bolt 55 to unlatch the door.

It will now be seen that the present invention provides a locking mechanism which is simple and easy to construct, and is composed of a relatively small number of different parts which are rugged in construction and certain in operation. Many of the members are of such form that they may be easily and inexpensively made by stamping, casting, forging and other relatively inexpensive operations and with a minimum of ma-

chining or other expensive operations. It is not necessary to construct a specially designed locking mechanism for each installation, depending upon the number of closures, but it is only necessary to provide the parts for the control device which actuates the rock shaft and a suitable number of sets of parts for each closure, the rock shaft sections of the several sets being connected during installation to connect all of the sets of parts to the control device.

Various modifications and additions may be made, as will be apparent. Where, for any reason, it may be desirable to control the locking mechanism from more than one point, additional lock-control mechanisms may be provided and connected to the rock shaft in a suitable manner. Any of the so-called latch doors may be provided with an individual lock for locking it independently of the general locking mechanism. Various types of suitable locks may be provided, but preferably the outside knob is formed similarly to the knob on the lock door described in the foregoing and is provided with a similar locking mechanism. Thus, when the knob is locked against movement, the latch cannot be released and the door cannot be opened, except from the inside. If desired, additional doors may be provided and locked by individual locking means not connected to the multiple locking mechanism.

The construction provided by the present invention is suitable for use in a large number of different fields where a multiple locking mechanism is desired. Inasmuch as the locking dogs have positive engagement with the corresponding doors and prevent movement in any direction, and since the dogs are withdrawn entirely from the doors, when unlocked, the locking mechanism is suitable for swinging, sliding or swinging and sliding doors.

Substantially all of the parts of the mechanism except the operating knobs, locking dogs and latch bolts, may be enclosed within the doors and adjacent structure, thus protecting the mechanism against injury from unauthorized tampering or the introduction of dirt or other foreign matter. Also, since the mechanism is substantially enclosed, there is little danger of injury to users due to contact with operating members.

The mechanism can be operated by simple manipulation of a knob under a minimum of force, and thus can be operated by small children. All of the operating knobs operate with a similar movement, and there is but a single knob on each side of a door. The mechanism is constituted of relatively light, well-balanced parts, which are so mounted that only a relatively small force is necessary to operate the same.

The provision of a safety release knob on the inside of each door permits the escape of anyone who has been accidentally locked in the wardrobe. Since the release mechanism is provided on each door, partitions may be provided adjacent each door or pair of doors for defining a plurality of separate compartments.

While certain novel features of the invention have been disclosed and are pointed out in the annexed claims, it will be understood that various omissions, substitutions and changes may be made by those skilled in the art without departing from the spirit of the invention.

What is claimed is:

1. In a wardrobe, in combination, a plurality of doors, latching means for each of said doors, means for locking all of said doors, a control mechanism for controlling all of said locking

means simultaneously, and means on the inside of each of said doors for releasing the corresponding latching and locking means simultaneously.

2. In combination, a plurality of doors, means for latching each of said doors, lock means corresponding to at least certain of said doors, means for simultaneously controlling said lock means, including an operating member on one of said doors, and means connecting the latch means on said last-named door to said operating member for operation thereby.

3. In combination, a plurality of latch doors and at least one lock door, latching means for each of said doors, locking means for each of said doors, means on said lock door for controlling all of said locking means simultaneously, manual means on one side of each door for controlling the corresponding latching means, and manual means on the other side of each door for releasing the corresponding locking means and latching means simultaneously.

4. In combination, a door, means for latching said door, means for locking said door, means for controlling said locking means, a manipulating member on said door, and means connecting said manipulating member to said control means and to said latching means, whereby movement of said manipulating member in one direction releases said latching means, and movement in the opposite direction actuates said control means.

5. In a wardrobe, in combination, a plurality of doors, latching means for each of said doors, locking means for all of said doors, and means including a manually operable member on one of said doors for controlling both said locking means and the latching means for said last-named door.

6. In combination, a plurality of doors including a latch door and a lock door means for latching each of said doors, means for locking all of said doors, means on said lock door for controlling said locking means, said lock means including a manipulating member, a lever driven by said manipulating member, lost motion connections between said lever and the corresponding latching means and between said lever and said locking means, whereby movement of said manipulating member in one direction actuates said locking means, and in the other direction actuates the latch means on said lock door.

7. In a wardrobe, in combination, a plurality of doors, latching means for each of said doors, locking means for all of said doors, and means including a member reciprocable entirely within the planes of the faces of each door, and movable with the door when the same is moved between open and closed positions, for releasing the corresponding locking means.

8. In a wardrobe, a door frame, a plurality of doors including right-hand and left-hand doors, means mounting said doors whereby said right-hand doors open oppositely with respect to said left-hand doors, a latch bolt and a lock release member arranged on each door, the latch bolts and lock release members on the right-hand doors being disposed oppositely from those on the left-hand doors, generally parallel paired actuating members on each door and operatively connected to said latch bolt and lock release member respectively, a single manipulating member on each door and connected to both of said paired actuating members, said paired actuating members being crossed on all of the doors opening in one direction and uncrossed on all of the doors open-

ing in the opposite direction, whereby similar movement of said manipulating members effects similar operation of said latches and lock release members.

5 9. In a wardrobe in combination, a plurality of doors, locking means for each of said doors, and means for controlling all of said locking means simultaneously, said last means including a rock shaft, locking dogs actuated by said shaft and adapted to engage said doors respectively, a lever having a fixed pivot and connected to said shaft, a lever angularly movable on said shaft and pivotally connected to said first lever, resilient means operating between said shaft and said second lever and active to urge said shaft in a direction to engage said locking dogs with said doors, and means engageable with said second lever for rocking said shaft against the force of said spring whereby to release said locking dogs.

10 10. In a wardrobe, a plurality of doors including right-hand and left-hand doors, means mounting said doors for movement, said right-hand doors being movable in the opposite direction from said left-hand doors, a latch member and lock release member on each door, said members being in reversed relative positions on oppositely mounted doors, rods extending from said latch member and lock release member, and a lever on each door for actuating said latch member and lock release member simultaneously, said rods on the doors which are movable in one direction being parallel and cooperating with said lever on opposite sides of the pivot thereof, and said rods on the doors which are movable in the opposite direction being crossed intermediate said lever and the actuated members, whereby similar actuation of said levers in the same direction actuates said members similarly on all of said doors.

15 11. In a wardrobe, a lock door and a plurality of latch doors, a frame, means mounting said doors for swinging and sliding movement, a gang lock associated with said frame and for locking all of said doors, a latch bolt on said lock door movable between latched and unlatched positions, a lock operating bolt on said lock door for controlling said gang lock and movable between locked and unlocked positions, means con-

trolling said latch bolt and lock control bolt and movable between a first position wherein said latch bolt is in unlatched position and said lock bolt is in unlocked position, a second and intermediate position wherein said latch bolt is in latched position and said lock bolt is in locked position, and a third position wherein said latch bolt is in latched position and said lock bolt is in locked position, means resiliently urging said control means into said intermediate position, and means for locking said control means in said third position.

12. In a wardrobe in combination, a door frame, a lock door, a plurality of latch doors, means mounting said doors for movement relative to said frame, a latch bolt projecting from each door for engagement with said frame and adapted to be retracted within said door, locking dogs disposed within said frame and projectable through an opening in said frame for engaging said latch doors respectively, releasing members disposed within said latch doors and movable for releasing the corresponding locking dogs, an actuating handle on the inner side of each door, means disposed within each latch door for connecting said handle to the corresponding latch bolt and releasing member, an actuating handle on the outer side of each latch door, means connecting said second-named handle to the corresponding latch bolt, means connecting all of said locking dogs for simultaneous release, and means including a handle on said lock door for actuating said connecting means and the corresponding latch bolt.

13. In a wardrobe, a plurality of doors, a frame, means mounting all of said doors for swinging and sliding movement relative to said frame, a latch bolt and a lock control bolt disposed within each door adjacent an upper corner thereof and vertically slidable therein, a control handle mounted on each door in substantially vertical alignment below said bolts, means including substantially parallel, vertically extending actuating members vertically movable within each door and extending from said bolts to a point adjacent said handle, and relatively short lever means connecting said actuating members to said handle for actuation thereby.

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