

- [54] **SAFETY MEDICINE CABINET**
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 [51] Int. Cl. **E05c 3/28, E05c 7/00, E05c 9/10**
 [58] Field of Search **292/24, 25, 44, 45, 54, 29, 292/136, 233, 236, 238, DIG. 18, DIG. 21, DIG. 65, DIG. 46, 52; 70/78, 84; 312/217, 219, 222, 333; 49/449**

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[57] **ABSTRACT**

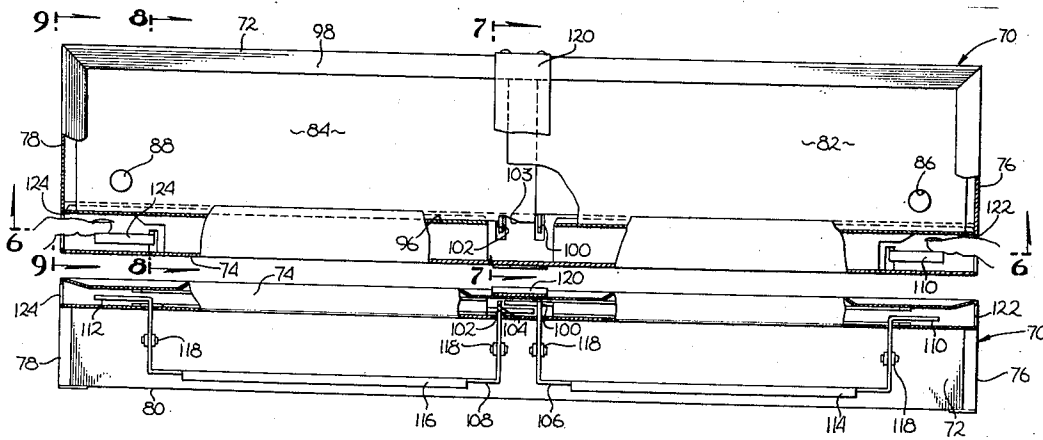
A cabinet which is extremely difficult for a child to open comprising a substantially rectangular box having a downwardly opening hinged front, or a sliding door front, the longest dimension of said box being substantially transverse and designed to be greater than the normal arm length of a five year old child, the front being latched in place by first and second gravity latches, the first latch being moved to the non-latching position through the use of a first pivotal bar with operation of the first pivotal bar being through an opening in the left side of the cabinet, the second latch being moved to the nonlatching position through the use of a second pivotal bar being with operation of the second pivotal bar being through an opening in the right side of the cabinet, each of the first and second latches being interiorly spaced from their respective sides a distance to prevent actuation by a child, both the first and second latches must be in the nonlatched position to permit opening of the cabinet.

8 Claims, 9 Drawing Figures

[56] **References Cited**

UNITED STATES PATENTS

2,755,519	7/1956	Xander	49/450
2,936,189	5/1960	Pearson	292/42
3,238,003	3/1966	Stark	312/219
3,288,509	11/1966	Galena	292/338



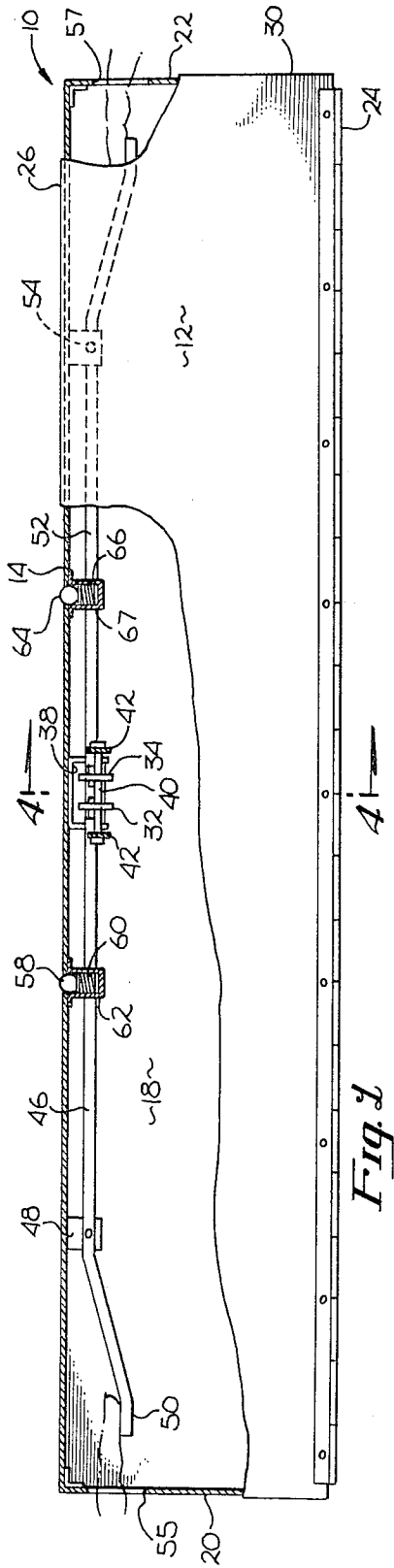


Fig. 1

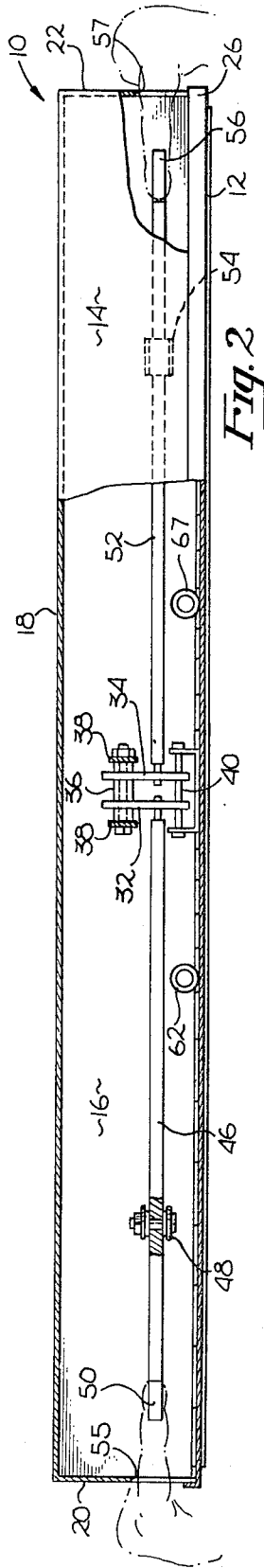


Fig. 2

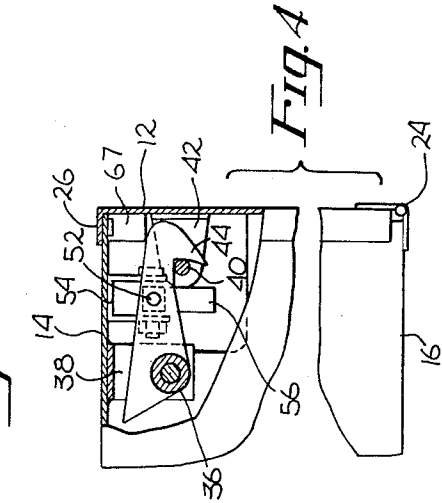


Fig. 4

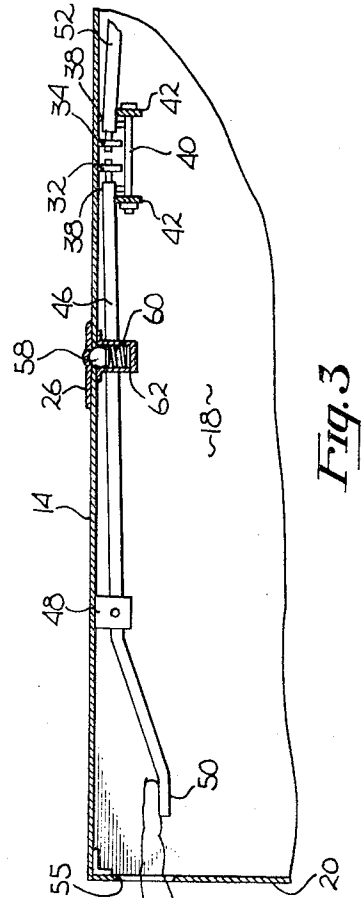


Fig. 3

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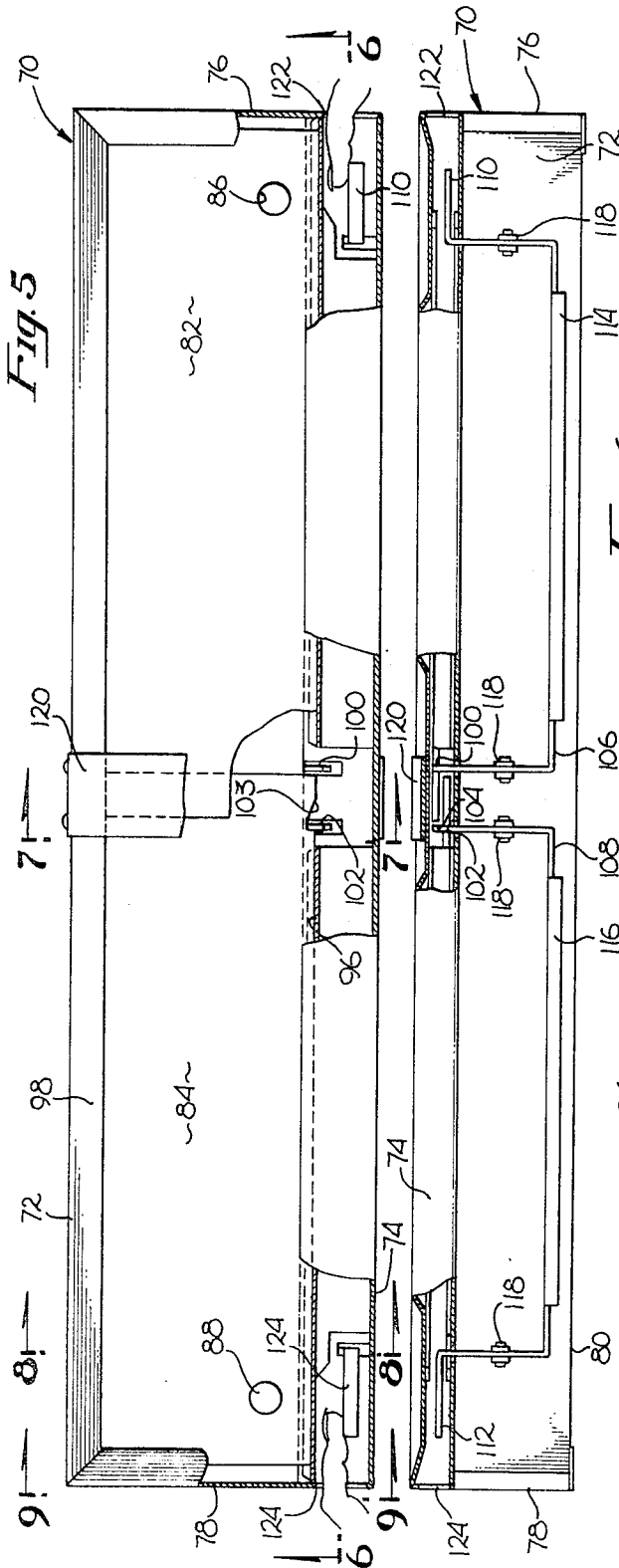


Fig. 5

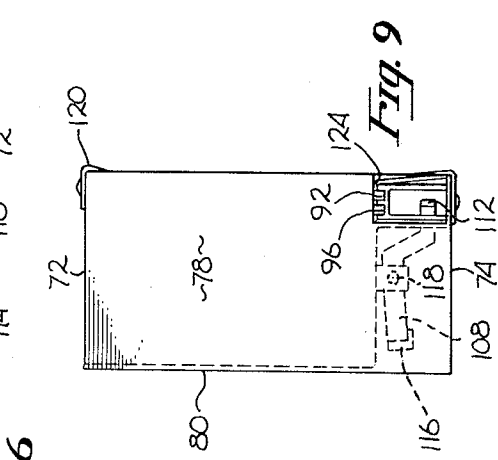


Fig. 6

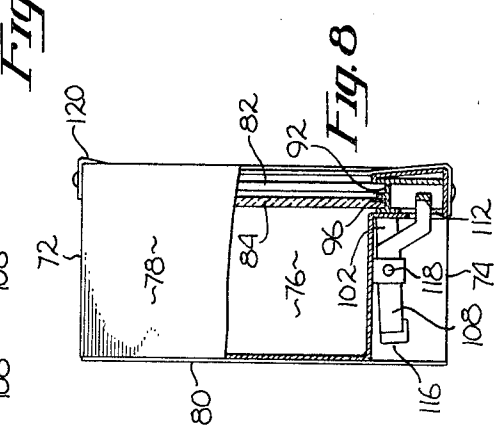


Fig. 7

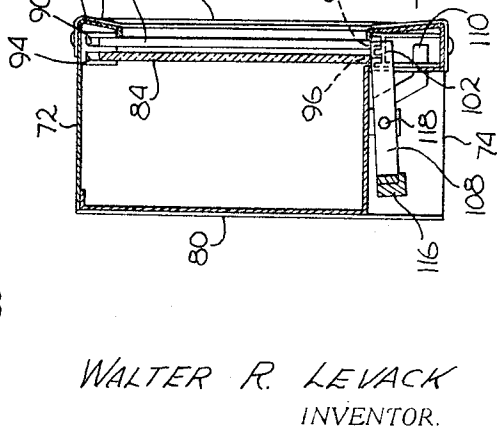


Fig. 8

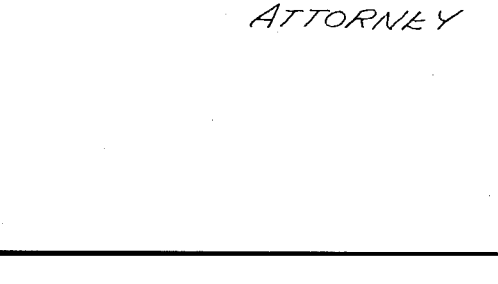


Fig. 9

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SAFETY MEDICINE CABINET

BACKGROUND OF THE INVENTION

To keep medicines and other toxic substances away from children is a well-known problem to all parents. Frequently, in most houses medicines are stored in a medicine cabinet located in the bathroom of a house. In an attempt to keep children from entering the cabinet, the cabinet is usually located a substantial distance above the floor frequently above a sink or the like. However, experience has shown it takes little ingenuity for a child to determine a way to enter the cabinet.

In an attempt to keep children out of such medicine cabinets, heretofore padlocks or other similar locking devices have been employed. However, such separate locking devices are inconvenient in that when it is desired to enter the cabinet, a key must be first secured (from its hiding place), the cabinet opened and the particular contents removed and then relocked. To replace the contents, the procedure is to be repeated. In an effort to overcome the use of a key, a combination lock has been employed. However, the person must then remember the combination or if it is written down, the parents run the risk of the child finding the combination. Besides the poor appearance of such a separate locking device, it is usually easy for a person to leave the cabinet unlocked until the removed contents are replaced. During the interval of time prior to replacement of the medicine, a child could manage to enter the cabinet and remove and consume some of the medicine contained therein.

It would be most desirable to design a medicine cabinet which could only be opened by adults and not by children, and a cabinet which did not employ the use of separate locking devices but could be opened directly.

SUMMARY OF THE INVENTION

It has been found that the arm reach of the average 5-year old child is less than 36 inches, so the medicine cabinet of this invention has been designed to be of a transverse length of 36 inches. The cabinet is substantially rectangular with the front of the cabinet in the first embodiment being hinged at its lower edge to open downwardly. In the second embodiment the hinged door is replaced by a pair of sliding doors. The front is latchably closed by first and second gravity latches. The first gravity latch is movable to the unlatched position by manually moving a first pivotal bar through an opening in the left side. The second gravity latch is movable to the unlatched position by manually moving a second pivotal bar through an opening in the right side. Both the first and second latches must be moved simultaneously to the unlatched positions to permit entrance into the cabinet. Each of the pivotal bars to be activated requires a finger reach of approximately 2 inches from their respective openings which, even if a child had the necessary arm reach, the child still could not open the cabinet if he did not have the necessary finger length. A pair of spring biased ball latches are to cooperate with the front so that it will be readily known upon closing the cabinet that the gravity latches are fully engaged.

BRIEF DESCRIPTION OF THE DRAWING

FIG. 1 is a front, partially cutaway view of the first embodiment of the medicine cabinet of this invention;

FIG. 2 is a top, partially cutaway, sectional view of the first embodiment of the medicine cabinet of this invention;

FIG. 3 is a view similar to FIG. 1 but showing the latches in the unlatched position;

FIG. 4 is a cutaway, partly-in-section view taken along line 4—4 of FIG. 1.

FIG. 5 is a front, partially cutaway view of the second embodiment of the medicine cabinet of the invention;

FIG. 6 is a bottom, partially cutaway, sectional view of the second embodiment of the medicine cabinet of this invention;

FIG. 7 is a sectional view taken along line 7—7 of FIG. 5;

FIG. 8 is a partially-in-section view taken along line 8—8 of FIG. 5; and

FIG. 9 is an end view of the second embodiment of the medicine cabinet of this invention taken from the direction of line 9—9 of FIG. 5.

DETAILED DESCRIPTION OF THE SHOWN EMBODIMENT

Referring particularly to the drawing there is shown in FIG.

1 a substantially rectangular medicine cabinet 10 having a front 12, a top 14, a bottom 16, a back 18, a left side 20 and a right side 22. The front 12 is pivotally connected by hinge 24 to the bottom 16. The front 12 includes an upper flange 26 which when in the closed position extends over a portion of the top 14. Likewise, a left side flange 28 and a right side flange 30 extend from front 12 and extend over the left side 20 and the right side 22, respectively.

Attached to the interior side of top 14 substantially at the midpoint of its length and adjacent its front edge are first and second gravity latches 32 and 34. Each of the latches 32 and 34 are independently pivotally supported upon a pivot pin 36, pivot pin 36 being attached to bifurcated bracket 38 which is fixed to top 14. Each of the latches 32 and 34 includes a hooked front portion which are capable of moving by gravity about a latch pin 40. Latch pin 40 is fixedly secured to bracket 42 which is securely fixed to front 12. The hook portion of each latch 32 and 34 is cammed 44 on its exterior surface so that upon contact by latch pin 40 each of the latches 32 and 34 are moved toward the unlatched position.

First pivot bar 46 is attached to first gravity latch 32 and capable of moving latch 32 to the unlatched position. Bar 46 is pivotally mounted upon trunnion 48 which is located about one-third of the length of bar 46 from the manual actuating handle 50. Second pivot bar 52 is attached to second gravity latch 34 and capable of moving latch 34 to the unlatched position. Bar 52 is pivotally mounted upon trunnion 54 which is located about one-third of the length of bar 52 from the manual actuating handle 56. As the weight of each of the bars 46 and 52 and their respective latches 32 and 34 inwardly of their respective trunnions 48 and 54 exceeds that of the portion of the bars outwardly of the trunnions 48 and 54, the latches 32 and 34 will assume their lowest position and can be raised to the unlatched position by manual downward pressure upon handles 50 and 56. A first opening 55 located within side 20 provides entrance for a person's finger to operate handle 50. A second opening 57 located within side 22 provides entrance for a person's finger to operate handle 56.

A first ball latch 58 being biased upwardly by a spring 60 being supported in a cylindrical housing 62 extends partially through an opening within top 14. A second latch 64 being biased upwardly by a spring 66 being supported in a cylindrical housing 67 extends partially through an opening within top 14. Latches 58 and 64 are located directly adjacent the front edge of top 14, latch 58 being located adjacent latch 32 and latch 64 being located adjacent latch 34. The ball latches 58 and 64 are to cooperate with detents located within flange 26.

The operation of the first embodiment of the medicine cabinet of this invention is as follows: It will be assumed that the cabinet 10 is closed. To open the cabinet a person must insert a finger of their left hand through opening 55 into contact with handle 50, move handle 50 downwardly (away from top 14), thereby causing the pivoting of latch 32 to the unlatched position. Simultaneously the person must insert a finger of their right hand through opening 57 into contact with handle 56, move handle 56 downwardly (away from top 14), thereby causing the pivoting of latch 34 to the unlatched position. The person then uses his thumbs to cause movement of the front 12 about the hinge 24 against the action of the ball latches 58 and 64 until the front 12 swings freely and downward. Entry into the cabinet 10 is now provided.

To close the cabinet 10 the person only need swing front 12 about hinge 24 until latch pin 40 contacts the camming surfaces 44 of the latches 32 and 34. Further closing movement of the front 12 causes the latches 32 and 34 to move toward

top 14 until the hook portion of each of the latches 32 and 34 moves by gravity toward bottom 16 about latch pin 40. As it is not possible to see if the latches 32 and 34 are in the latched position, ball latches 58 and 64 are located so that when each of these latches are cooperating with their respective detents within flange 26, the latches 32 and 34 are in the latched position. If a child attempts to open the cabinet 10 by pivoting only one bar thereby releasing one latch (either 32 or 34), the other bar will still engage latch pin 40 and prevent opening of the cabinet 10.

The second embodiment 70 of the medicine cabinet of this invention is shown in FIGS. 5-9 of the drawings. Cabinet 70 has a top 72, a bottom 74, a right side 76, a left side 78 and a back 80. The front provides for a right and left sliding door 82 and 84, respectively. Door 82 has a hiatus 86 to facilitate manual movement thereof with door 84 having a similar hiatus 88. Door 82 is slidingly retained within an upper channel 90 and a lower channel 92. Door 84 is slidingly retained within an upper channel 94 and a lower channel 96. The sliding movement of doors 82 and 84 are spaced from each other to not interfere with the movement of the other. Edge 98 surrounds cabinet 70 to improve the exterior appearance thereof.

The latching arrangement of cabinet 70 is basically similar to cabinet 10. A first gravity latch 100 cooperates with channel 92 to prevent opening of door 82. When preventing opening of door 82 latch 100 cooperates within a notch (not shown) in the lower edge of door 92. A second gravity latch 102 cooperates with channel 96 to prevent opening of door 84. Latch 102 extends within a notch 103 within the lower edge of door 84 to prevent opening thereof. Latch 102 includes a protuberance 104 which also is capable of preventing opening of door 82 upon removal of latch 100 from its respective notch within door 82. A first U-shaped actuation rod 106 is attached to first gravity latch 100. A second U-shaped actuation rod 108 is attached to second gravity latch 102. Rod 106 terminates in a first actuation element 110 with rod 108 terminating in a second actuation element 112. The apex portion of each rod 106 and 108 includes a first weight 114 and a second weight 116, respectively. Intermediate the apex portion of each rod 106 and 108 and their respective latches 100 and 102, the rods are pivotally mounted by pivot pins 118 to cabinet 70. The pivoting connection of pins 118 is such that due to weights 114 and 116 the latches 100 and 102 normally prevent the sliding movement of doors 82 and 84. A cover shield 120 extends centrally exteriorly of cabinet 70 and is attached thereto to prevent manual access directly to latches 100 and 102 or the removing of doors 82 and 84.

The operation of the second embodiment of the cabinet 70 of this invention is identical to that of the first embodiment except that doors 82 and 84 are slid open instead of pivoting outwardly as door 12. Latches 100 and 102 must be simultaneously manually activated through openings 122 and 124, respectively, within cabinet 70 to permit doors 82 and 84 to open. Actuation is caused by simultaneous downward movement of elements 110 and 112 against the gravity torque caused by weights 114 and 116. It is to be noted that the actuation elements 110 and 112 rest within channel 96. As it is necessary for a person's finger to activate elements 110 and 112, channel 96 is formed of a sufficient width to facilitate such activation. It is noticed in the drawings that channel 96 is of a greater width than channel 92. If only the latch 100 is activated, latch 102 still prevents movement of door 84 and also protuberance 104 rests behind door 82 to prevent its movement. Upon activating latch 102 only, latch 100 prevents opening of door 82 and a portion of rod 106 rests behind door 84 still preventing opening thereof. Both latches 100 and 102 must be actuated simultaneously to cause doors 82 and 84 to

open.

What is claimed is:

1. A medicine cabinet comprising:

a substantially rectangular unit composed of at least a top, a bottom, a left side, a right side, and a front, said front including a right and left slidingly movable door; a first gravity latch being capable of cooperating with said left door to prevent movement thereof, a second gravity latch being capable of cooperating with said right door to prevent movement thereof, each of said latches being movable by gravity to a latched position thereby preventing door movement;

a first actuating bar for moving said first latch to an unlatched position, a second actuating bar for moving said second latch to an unlatched position, said first actuating bar being operable from adjacent said right side, said second actuating bar being operable from adjacent said left side, both of said latches must be moved simultaneously to their respective unlatched position to effect movement of said doors.

2. An apparatus as defined in claim 1 wherein:

first means connected to said first latch being capable of preventing movement of said left door, second means connected to said second latch being capable of preventing movement of said right door.

3. An apparatus as defined in claim 2 wherein:

said first means includes a portion of said first actuating bar, said second means includes a protuberance attached to said second latch.

4. An apparatus as defined in claim 1 wherein:

the transverse distance between said left side and said right side being substantially 36 inches whereby such length is normally greater than the spread arm distance of a 5-year old child.

5. An apparatus as defined in claim 1 wherein:

said first actuating bar having a first handle facilitating movement by a human finger, said second actuating bar having a second handle facilitating movement by a human finger, said first handle being spaced inwardly of said right side and operable through a first opening in said right side, said second handle being spaced inwardly of said left side and operable through a second opening in said left side.

6. An apparatus as defined in claim 5 wherein:

said spacing of said first handle from said right side and said spacing of said second handle from said left side being approximately 2 inches, whereby the length of an adult human finger is sufficient for actuation of said first and second bars but normally the finger length of a 5-year old child is not sufficient to cause actuation of said first and second bars.

7. A cabinet latching mechanism comprising:

a first gravity latch being capable of cooperating with a first door to prevent movement thereof;

a second gravity latch being capable of cooperating with a second door to prevent movement thereof, both said first and second latches being movable by gravity to a latched position thereby preventing door movement;

a first actuating bar for moving said first latch to an unlatched position, a second actuating bar for moving said second latch to an unlatched position, both said first and second latches must be moved simultaneously to their respective unlatched position to effect movement of either said first door or said second door.

8. The mechanism as defined within claim 7 wherein:

said latching mechanism being located entirely within a cabinet.

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