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CONCEALED LOCK MEDICINE CABINET

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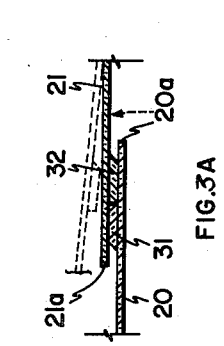


FIG. 3A

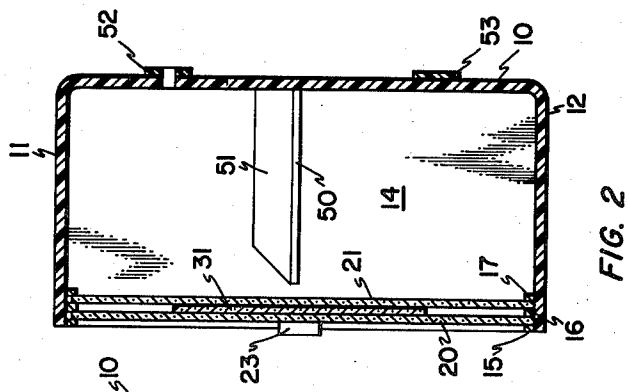


FIG. 2

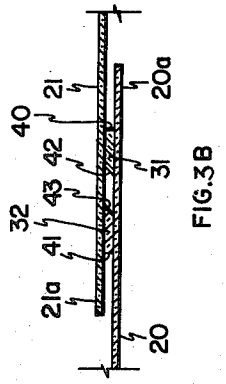


FIG. 3B

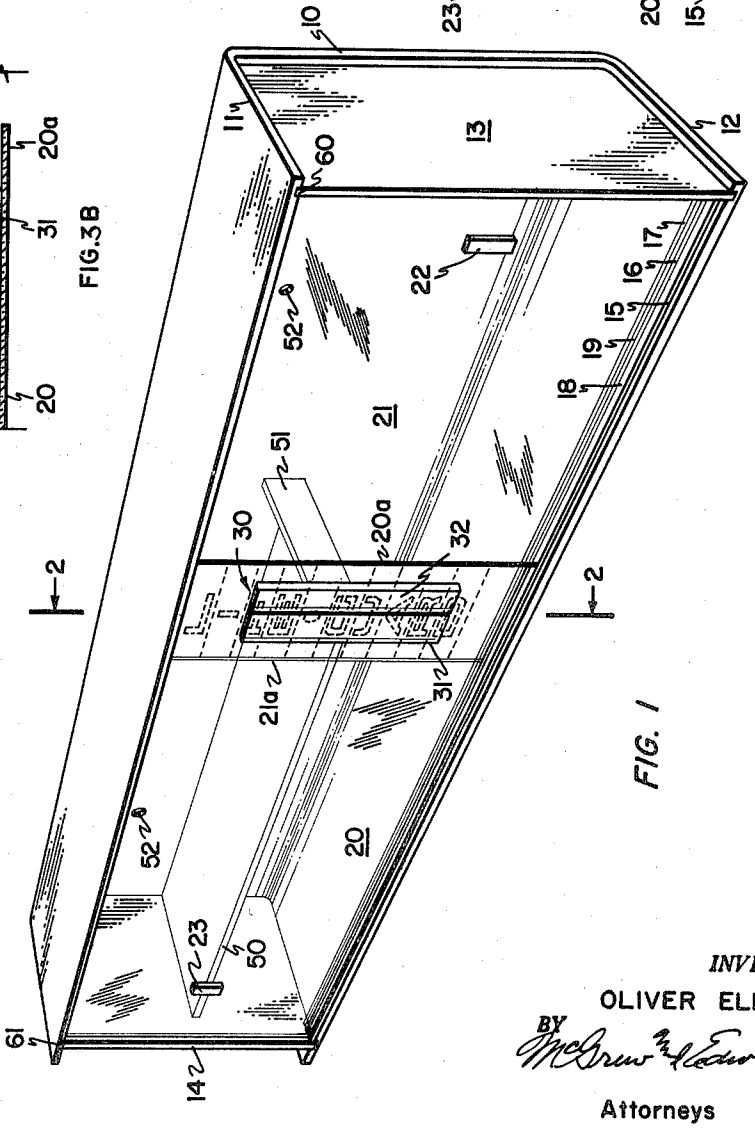


FIG. 1

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CONCEALED LOCK MEDICINE CABINET

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This invention relates to a portable, concealed lock, medicine cabinet and more particularly to concealed lock medicine cabinets adapted for selective insertion into medicine cabinets of the permanently installed type found in residences and like environments.

Small children frequently gain access to unattended medicine cabinets and to potentially dangerous drugs and poisons stored therein. While a lock may be installed on the medicine cabinet to prevent such access, this is not a satisfactory solution since rapid access to drugs and the like which are stored in the medicine cabinet may be of paramount importance and delay in manipulation of a lock could have serious consequences.

Accordingly, it is an object of this invention to provide a simple, attractive and easily operated concealed lock medicine cabinet.

A further object of the invention is to provide a portable insert cabinet for permanent medicine cabinets, which insert cabinet includes a concealed locking mechanism which is easily manipulated when its operation is understood, but which resists opening by the usual type of manipulation.

Yet another object of the invention is to provide such a portable insert cabinet which is lightweight in construction, relatively inexpensive to manufacture, and has a clean, attractive appearance.

A further object of this invention is to provide a portable, concealed lock medicine cabinet adapted for insertion into permanent medicine cabinets of the type usually found in residences and like environments.

In a preferred embodiment, a concealed lock medicine cabinet constructed according to this invention includes an elongated generally U-shaped channel member which has upper and lower parallel walls perpendicularly attached to a back wall. End walls are provided for the open ends of the U-shaped channel and are adapted for interconnection with end portions of the upper, lower and back walls forming the channel. Opposed surfaces of the upper and lower walls include a series of runners or guides forming channels which serve to guide a pair of flexible, preferably transparent, panes which are the doors of the cabinet. Each of the panes is longer than one-half the interior length of the cabinet and each one carries a pull on its exterior surface adjacent its outer end. On opposed overlapping faces of the panes adjacent the center of the cabinet are mating portions of a locking mechanism. Each portion of the locking mechanism is comprised of an elongated ridge which is mounted on the respective opposed overlapping faces of the panes perpendicular to their respective lengthwise axes. The cross-sectional configuration of each of these ridges is generally rectangular but having its rear face beveled or sloped with respect to the pane on which it is attached. The other end of each of the ridges is squared or perpendicular to the respective panes.

In operation, when the respective panes are moved by their pulls to close the container or cabinet, the squared rear faces of the ridges abut and lock the panes in closed relation. To open the cabinet, pressure must be exerted on the intermediate face of the rear or inner of the flexible panes thereby moving its ridge beyond the limits of the other ridge whereby the panes may be slideably moved relative to each other. In a closing operation, because of the sloping or biased rear face of the ridges a camming

action occurs which causes the ridges to slide relative to each other until their limits are reached, at which time the rear pane drops its ridge in position behind the ridge of the other pane, thereby locking the container.

In a preferred construction interior shelving and the like are included whereby various sizes of containers may be accommodated and the interior space of said container best utilized.

The practice of this invention will become apparent from a study of the following description making reference to the accompanying drawings, in which like reference numerals designate like parts in the several views. In these drawings:

FIG. 1 is an isometric view of a concealed lock medicine cabinet constructed according to this invention showing the front, top and an end thereof;

FIG. 2 is a sectional view of the cabinet of FIG. 1 taken generally along the line 2—2; and

FIGS. 3A and 3B are schematic indications of sequential stages of operation of the locking mechanism associated with the transparent front panes of the medicine cabinet of FIGS. 1 and 2, the dash line position in FIG. 3A being out of scale.

In FIG. 1 a concealed lock medicine cabinet according to the invention is shown as including a generally U-shaped channel formed by a relatively high rear wall **10** attached in perpendicular relation to upper and lower walls **11** and **12**. The open ends of the channel formed by walls **10**, **11** and **12** are closed by complementary end walls **13** and **14** which are adapted for contiguous interconnection along the inner peripheral surfaces of the respective upper, lower and rear walls of the channel member. Opposed peripheral portions of the inner surfaces of the upper and lower walls **11** and **12** have a plurality of runner strips or ridges **15**, **16** and **17** defining therebetween a pair of channels or guides **18** and **19** in which a pair of inner and outer transparent panes or doors **20** and **21** fit loosely for reciprocal sliding movement. On the outer face of each of panes **20** and **21** adjacent their outer ends is a pull or knob **22** and **23**, respectively, for purposes of controlling the reciprocal sliding movement of the panes in channels **18** and **19**.

Each of the panes **20** and **21** is longer than one-half the length of the interior of the cabinet formed by the U-shaped channel and end walls **13** and **14** whereby the center portions of the panes overlap even when moved to their most extended positions in a cabinet closing operation. When in such extended positions, access to the interior of the container is prevented. On opposed surfaces of the overlapping portions **20***a* and **21***a* of panes **20** and **21** are complementary sections of a locking mechanism **30**. This locking mechanism is comprised of two elongated strips or ridges **31** and **32**. Ridge **32** is mounted on pane **21** and ridge **31** on pane **20**.

Referring for the moment to FIGS. 3A and 3B, each of the ridges may be likened to a rectangle having one longitudinal face beveled. FIG. 3A is indicative of the locking mechanism in its locked position and FIG. 3B in its deactuated or unlocked position. Each of the ridges **31** and **32** has a flat rear face **40** and **41**, respectively, which are adapted to abut when the panes **20** and **21** are in a locked relation as is shown in FIG. 3A. To unlock the panes and open the cabinet, pressure may be exerted transversely of the cabinet against one pane, such as pane **21** (FIG. 3A) as indicated by the dash line arrow. This results in rocking the pane about its associated strip until it clears the adjoining strip as shown by the dash-line in FIG. 3A. The shifting of position occurs within the channel enclosure and preferably the panels or panes **20** and **21** are flexible to provide desired clearance when binding occurs. After one strip clears the adjoining strip

the panel may be drawn along the channel to register with the other panel and open the face of the cabinet.

When it is desired to again close the cabinet and lock it, a reversing reciprocal sliding movement of the panes relative to each other causes the respective forward biased surfaces 42 and 43 of ridges 31 and 32 to cam relative to each other in a smooth sliding movement until such time as the rear limits thereof are reached, at which time ridge 32 drops in position behind ridge 31 and the flat rear faces 40 and 41 thereof abut in a pane locking and cabinet closing configuration.

Preferably, that portion of the panes which contains or carries ridges 31 and 32 is masked in some manner. This is preferably done by applying an opaque legend of some sort over the central or inner end portion of the outer pane 20, as is generally indicated in dotted lines in FIG. 1. With such an arrangement, the existence of the locking mechanism formed of ridges 31 and 32 is concealed. Thus, a child attempting to open the cabinet and exerting opening pressure against either pull 22 or 23 is not able to open the cabinet and yet does not realize what is preventing such movement.

Preferably, I include a shelf 50 which extends for one-half of the interior of the cabinet whereby various sizes of bottles may be placed in the cabinet and the volume thereof is most fully utilized. Also, an upstanding wall 51 is included at an end of shelf 50 to prevent accidental displacement thereover of articles contained on the shelf. Furthermore, wall 51 adds rigidity and structural strength to shelf 50 due to the right angular attachment between wall 51 and shelf 50 on the interior surface of back wall 10.

On the outer surface of back wall 10 are a plurality of bosses or pads. The upper bosses 52 are preferably apertured and spaced to provide means whereby the cabinet may be suspended on spaced screws or the like. The lower bosses 53 are spaced at increments along the bottom surface of wall 10 substantially identical to the spacing of apertured bosses 52 and serve as balance pads to maintain the cabinet in a perpendicular position relative to a surface upon which it is suspended.

While selection of materials for fabrication of a cabinet according to the invention is limited only by the imagination of a manufacturer, it is preferable that the main channel portion comprised of upper and lower walls 11 and 12 and back wall 10 be integrally formed as by extrusion of a plastic material. Also, ridges 15, 16 and 17 which form channels 18 and 19 and which are sectionally indicated as of a different material in FIG. 2, of course, may be integrally formed in the channel member during an extrusion process.

I have found the best method of mounting end walls 13 and 14 to be to form a slot adjacent the outer peripheral edges of the inner surfaces of walls 10, 11 and 12 in which the respective end walls 13 and 14 may be inserted and joined by a suitable plastic adhesive. The slotting is best shown in FIG. 1 and generally indicated by reference numerals 60 and 61.

Panes 20 and 21 are likewise preferably fabricated of a plastic material and are transparent in order that the position of drugs and the like stored in the container may be easily ascertained. The plastic which is chosen for the fabrication of panes 20 and 21, while not necessarily

transparent, must have some structural rigidity and yet exhibit flexibility sufficient for pressure to cause a pane to be distorted whereby, as described above, the ridges comprising locking mechanism 30 may be moved relative to each other. It also must have sufficient elasticity to recover after removal of the distorting force.

It should be understood that various modifications in the fabrication of parts and design of elements may be had to fabricate other concealed lock medicine cabinets which would be equally within the scope of the instant invention.

Having thus described my invention in detail and with sufficient particularity as to enable those skilled in the art to practice it, what I desire to have protected by Letters Patent is set forth in the following claim.

A concealed lock medicine cabinet, comprising an elongated box-like body having an open face and otherwise closed against access from the exterior of the body, each of the opposed inner surfaces of the upper and lower walls of the body having a pair of adjacent straight parallel channels disposed inwardly from the edge bordering the open face, a pair of flexible transparent panels each disposed in one opposed pair of said channels and having inner end portions disposed in lapping relation for completely closing the open face of the body and movable by flexing into a superposed position in said channels to open one portion of said face, vertical strips disposed on the facing surfaces of the lapping portions of said transparent panels for positioning the strips in side-abutting relation when the panels close the open face requiring an external pressure to be exerted on one panel transverse to its direction of movement displacing the strips from the side-abutting relation and allowing the movement of said one panel in its channel into said superposed position, and each strip having beveled edges to aid displacing the strips from side-abutting relation so as to permit sliding movement of the panel lengthwise along the other panel from the superposed position to the closed position.

References Cited by the Examiner

UNITED STATES PATENTS

390,135	9/88	Morey	217—62
841,378	1/07	Curtis	20—19
960,484	6/10	Beehler	217—36
1,102,869	7/14	Carmer	40—14
1,687,870	10/28	Matson	20—42
1,962,860	6/34	Duell	221—246
1,994,063	3/35	Bruns	206—42
2,065,860	12/36	Le Page	312—245 X
2,144,782	1/39	Swanson	20—42
2,628,877	2/53	Woo	312—138 X
2,644,205	7/53	Karp	20—19
2,821,451	1/58	Kaufman	312—138
2,889,590	6/59	Kunkel	20—52.2
2,959,827	11/60	Barabas	20—19

FOREIGN PATENTS

1,504	1898	Great Britain.

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