Feb. 3, 1959 J. D. HOLLAND 2,872,178

CABINET WEIGHING SCALE

Filed May 3, 1956 2 Sheets-Sheet 1

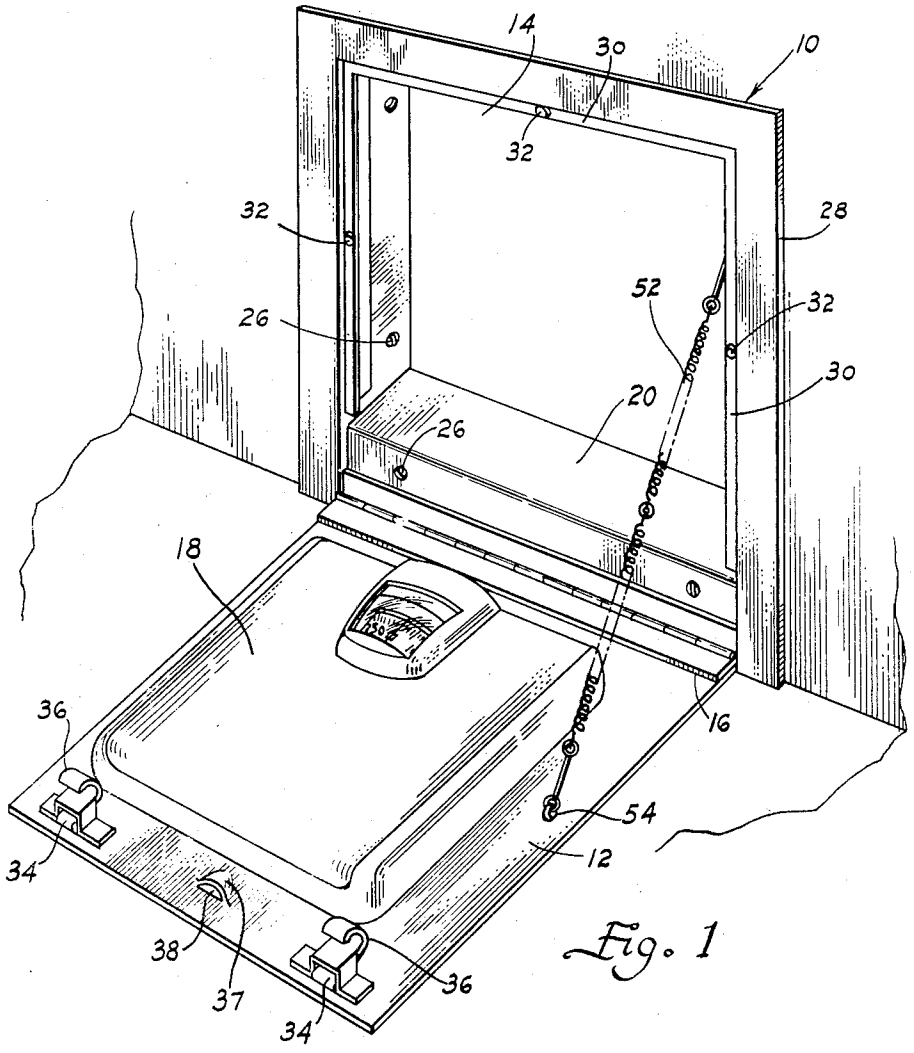


Fig. 1

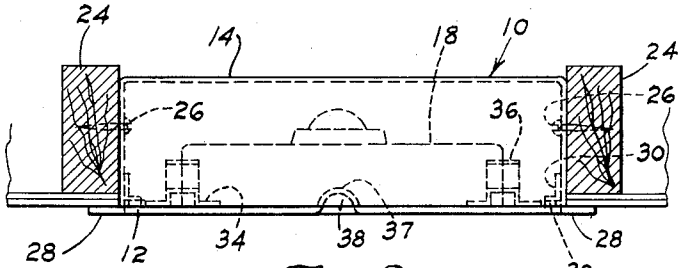


Fig. 2

INVENTOR.
JOHN D. HOLLAND

BY

ATTORNEY

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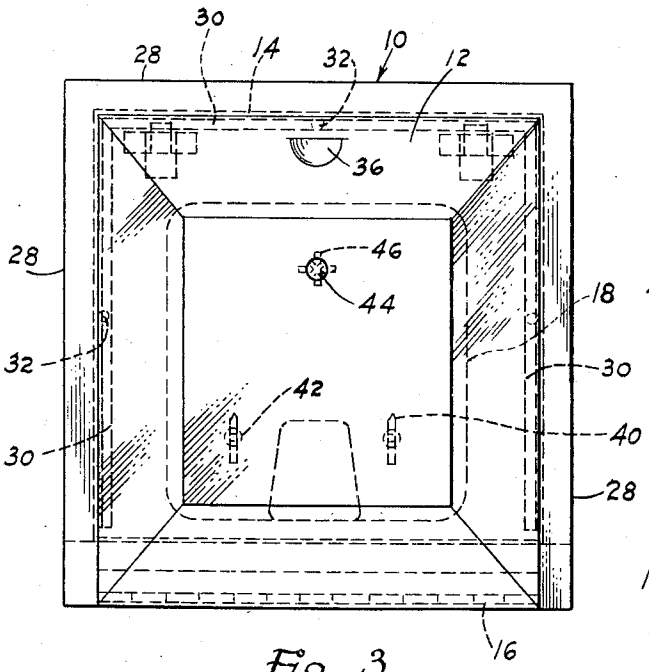


Fig. 3

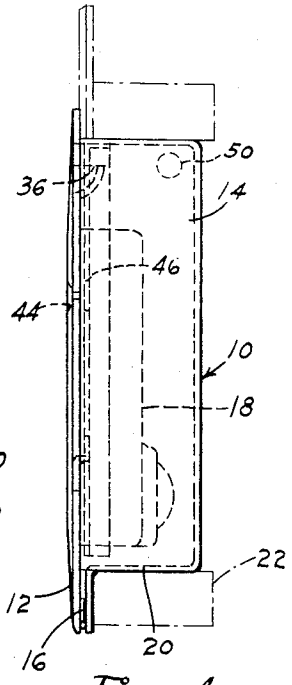


Fig. 4

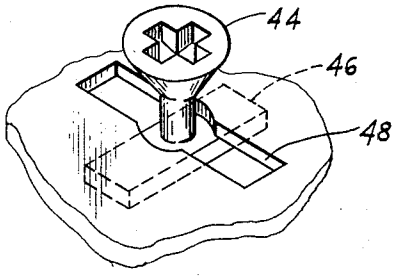


Fig. 5

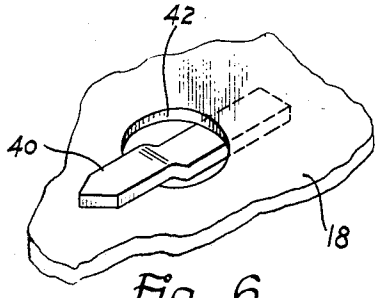


Fig. 6

INVENTOR.
JOHN D. HOLLAND
BY
ATTORNEY

United States Patent Office

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CABINET WEIGHING SCALE

John D. Holland, York, Pa.

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12 Claims. (Cl. 265—27)

This invention relates to a flush type wall cabinet and more particularly to such a cabinet which has its storage area inserted into a room wall and is covered by a door or panel which is hinged at or near the floor level for the purpose of supporting a weighing scale selectively in operative and non-operative positions.

So-called bathroom weighing scales, as used conventionally at present in bathrooms, bedrooms, and the like present both a nuisance and hazard by occupying space upon the floor, frequently in a position which is not readily observed due to the low height, for example. They frequently are tripped over unintentionally, causing personal injury and property damage as well. No satisfactory attempts have been offered heretofore to eliminate this nuisance other than physically to pick up the scales and place them in a linen or clothes closet or the like, or slide them under a bed, chest, or otherwise, requiring considerable physical effort and being a nuisance even when stored as aforesaid.

The principal object of this invention is to provide a quickly operated means for storing bathroom-type weighing-scales when not in use, thereby eliminating the necessity of lifting and moving such scales to separate storage or of leaving them, when not in use, upon the floor of a bathroom, bedroom, or the like.

Another object of the invention is to eliminate any chance that such scales will be left on the floor of a room where they present a safety hazard and are liable to damage.

A further object is to provide a simple and effective cabinet designed especially to hold such scales selectively in operative or inoperative positions with minimum operating effort.

Other objects of the invention will be apparent from the following description and claims considered in connection with the accompanying drawings forming a part of this application, wherein:

Fig. 1 is a perspective view of one embodiment of the invention, showing the storage cabinet with the hinged door or panel open and the scale in operative position thereupon.

Fig. 2 is a horizontal sectional view through a portion of the wall of a room and showing the top of the cabinet with the hinged door or panel closed and the scale in a fold-away or inoperative position within the cabinet.

Fig. 3 is a front elevation showing the hinged door or front panel in closed position. The door, in this position, and the face flanges of the cabinet are the only parts of the cabinet exposed to view from the interior of the room.

Fig. 4 is a vertical side elevation showing the door or panel of the cabinet closed and the position of the scale relative to the cabinet when housed within the storage area thereof provided within normally waste space between the wall studs.

Figs. 5 and 6 are fragmentary perspective views of exemplary fastening means by which the scale is secured to the inside surface of the door or panel.

With specific reference to the embodiment of the invention illustrated on the drawings, the numeral 10 indicates generally the cabinet for the storage of a weighing scale, said cabinet readily being capable of inexpensive unitary or multi-part manufacture from sheet metal stock or molded from synthetic resin. A door or panel 12 is fastened to one edge of the storage shell of the cabinet 14 preferably by means of a piano hinge 16 or the equivalent thereof. This hinge 16 is so positioned with regard to floor level of the room that it will permit the load upon the scale 18 in the operative position to be taken by the door or panel 12 while resting directly upon the floor, thereby eliminating undue stress upon the hinge 16 or tendency to move or dislodge the storage shell of the cabinet relative to the wall by displacing or shearing the fastenings 26.

The storage shell 14 preferably is of such construction as to be dust and moisture proof and is provided with angularly related panels comprising a knee or apron section 20 which bridges or extends over a horizontal wall member or floor plate or beam 22 which conventionally is fastened to the floor and upon which the wall studs 24 bear. The aforementioned is illustrated in Figs. 1 and 4. Storage shell 14 and its integral apron member 20 are fastened to floor plate 22 and the wall studs 24 by wood screws or similar fastenings 26.

Conventional house construction usually provides wall studs on 16" centers, thereby leaving a clear space 14" or more wide and as deep as the depth of the studs, usually about 3½". If the storage space has a height approximately equal to the width thereof, adequate storage space will be provided for modern type weighing scales of the style described which are low in overall height when positioned for use.

Integral with storage shell 14 is a marginal finish face flange 28 which is comprised of two vertical members and one horizontal member outlining the door 12 at the top and two sides when the door is closed. The back of this flange 28 preferably is flush with the wall of the room and abuts so as to retain the tile, paper, or other wall covering. If desired, however, the face flange 28 may be bent inward at the outer edges thereof to resemble a finish molding having desired thickness, thereby also affording additional depth to the storage space. Recessed behind the flange 28 and integral with the storage shell 14 is a flange 30, preferably angular in shape and positioned such as to act as a positive stop for the door 12 in its closed position, thereby positioning the outer surface of the door 12 flush with the outside of the flange 28 or recessed inward from the same, as desired. Rubber or other resilient buttons 32 mounted on the vertical face of the angular flange 30 will eliminate noises and stress in the closing of door 12.

Mounted on the inside surface of the door 12 is one or more latches 34, preferably of the spring loaded type, and in such position as to engage and lock behind the flange 30 when the door 12 is in the closed position. Means for opening the door from closed position are provided, the same providing no obstruction on the outer surface and one example specifically illustrated being an inwardly pressed, recess-forming portion 37 which provides a finger-receiving opening 38. A forward or outward pull of a finger in the opening 38 of the door 12 releases the latches 34 and permits the door 12 to be opened and contact the floor surface which is the operative position of the door and the scale thereupon.

In closing or storing the scale 18, the fingers may engage curved handle extensions 36 on the latches 34 to raise the door and scale from the floor and pivotally move the same into shell 14. Final closing is effected by pushing upon the outer surface of door 12 until latches 34 engage behind the flanges 30. The handle ex-

tensions 36 also may be used during the final lowering of the door 12, with the scale thereon, to the floor.

To secure the scale 18 to the inside surface of the door 12, fastening means are provided, one desirable example comprising two or more retaining fasteners 40, one part of each of which is fastened integrally with the inside of the door 12 by welding or the like, and the other part of which is received within opening 42 in the bottom plate of the scale 18. The foregoing is clearly illustrated in Figs. 3 and 6.

To lock the scale 18 to the door 12, an easily actuated flush type fastening 44 with an integral T-shaped extension 46 thereon is illustrated in Figs. 3 and 5 in a transverse or locked position relative to scale 18, the extension being passed through a similarly shaped opening 48 in the bottom plate of the scale 18. A quarter or ninety degree turn of the fastening 44 permits the extension 46 to be moved to or released from its locking position relative to the scale. After turning fastening 44 to releasing position, the scale may be lifted from the fastenings 40 and the scale removed from the door 12 in the event of replacement or to permit the use of the cabinet for other purposes.

If desired, an electric light, preferably of the tubular type with a standard mounting may be installed in the upper part of the storage shell to provide light for interior visibility. Also, a door-actuated light switch of conventional type, not shown, may be used to control such light.

Further, if desired, a suitable spring 52, or series of articulated springs may extend between and be connected at opposite ends respectively to eyelets 54 on the door 12 and back or one side wall of shell 14, thereby to render the opening of the door and lowering thereof safe from falling and thus minimize danger of damaging the scale, as well as facilitating the raising of the scale when the door is being closed. Preferably the length and strength of the spring is such that the door just rests upon the floor when the door is fully open.

From the foregoing, it will be seen that the present invention provides an attractive, relatively inexpensive cabinet which easily may be mounted within the wall of a bathroom or other suitable room of either an existing house or a house being constructed, especially the latter. For very little additional expense, a housing development readily may include the same in the houses while being built and provide an added sales feature, as well as means for safely storing such weighing scales when not in use. The door of the cabinet and/or the face flanges thereof may be finished suitably so as to match or complement the decor of the room. Further, the door may be shaped so as to be flat, as shown in Figs. 1 and 2, or have a slight, truncated pyramidal configuration, preferably extending outward, the flat central portion thereof preferably being coextensive with the scales, as shown in Figs. 3 and 4.

While the invention has been described and illustrated in its several preferred embodiments, and has included certain details, it should be understood that the invention is not to be limited to the precise details herein illustrated and described since the same may be carried out in other ways falling within the scope of the invention as claimed.

I claim:

1. A cabinet comprising a unitary shell arranged to be mounted in recessed manner within a wall space the lower boundary of which is coincident with the floor of a bath room with the outer edges of the shell substantially flush with the wall, a door having a planar outer surface with no projections thereon hingedly connected to the outer edge of the normally lower portion of said shell on a pivotal axis which is substantially within the plane of the floor when said cabinet is mounted for use to permit flat support of the door upon the floor, in combination with a self-contained bath room weighing scale secured to the inner surface of said door and movable therewith between storage position within the shell when the door is closed and operative horizontal position when the door is open and resting upon the floor to support the door and scale.

2. The cabinet set forth in claim 1 further characterized by the lower wall of said shell comprising an apron having horizontal and vertical panels shaped to extend over an interior floor plate of the wall of a room and the lower edge of said apron being connected to the hinge means for the door.

3. The cabinet set forth in claim 1 further including face flange means extending outward from the side and top edges of said shell, and stop means in said shell inset from said flange means a distance equal to the thickness of the door and engageable by said door when closed to limit the closing movement thereof relative to said shell and permit the door being disposed flush with said face flange means.

4. The cabinet set forth in claim 1 further including coengageable latch means on said door and shell adjacent the edge opposite the hinged connection and operable to hold said door releasably latched in closed position, and handle means connected to and projecting away from the inner surface of said door adjacent said edge opposite the hinged connection and engageable manually to raise the door and scale from operative position upon the floor toward storage position within the shell.

5. The cabinet set forth in claim 4 further characterized by the latch and handle means being combined.

6. The cabinet set forth in claim 4 further including stop flange means extending from at least one side wall of the shell into the scale receiving opening at the front of the shell, said flange means being engageable on one surface by the door to limit the closing movement thereof and engageable on the other surface by the latch means when the door is latched closed.

7. The cabinet set forth in claim 4 further characterized by said door also being provided with finger-engageable door opening means flush with the normal outer surface thereof, whereby when the door is open and resting upon a floor said door opening means will not engage said floor.

8. The cabinet set forth in claim 1 further including spring means interconnected between the inner surface of said door and interior of said shell and operable to facilitate raising the door and shell from a position upon a floor toward closed position, said spring means also preventing the door and scale from falling to the floor and the strength of the spring being such as to permit the door barely to rest upon a floor from the weight of the scale.

9. A cabinet comprising a unitary shell arranged to be mounted operatively in recessed manner within a wall space the lower boundary of which is coincident with the floor of a bath room with the outer edges of the shell substantially flush with the wall, a bath room scale supporting door having a planar outer surface with no projections thereon hingedly connected to the outer edge of the normally lower portion of said shell on a pivotal axis which is substantially within the plane of the floor when operatively positioned as aforesaid, and connecting means carried by the inner surface of said door and operable to connect a bath room scale to the inner surface of said door so as to be movable with said door selectively for storage position within the shell when the door is closed and operative position when the door is open and resting upon the floor.

10. The cabinet set forth in claim 9 further characterized by the lower wall of said shell comprising an apron provided with horizontal and vertical panels shaped to extend over an interior floor plate of the wall of a room and the hinge for the door being connected to the lower edge of said apron, whereby the door covers

said apron when closed and is substantially flush with outer surface of said wall of a room.

11. The cabinet set forth in claim 9 further including coengageable latch means on said door and shell operable to hold said door releasably latched in closed position, and handle means connected to and projecting away from the inner surface of said door adjacent the outer edge thereof opposite the hinge and engageable manually to raise the door and bath room scale fixed thereto from operative position upon the floor toward storage psoition within the shell.

12. The cabinet set forth in claim 9 further characterized by said door also being provided with recessed finger-engageable door opening means flush with the normally outer surface thereof, whereby when the door is open and resting upon a floor said door opening means will not engage said floor.

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