Feb. 25, 1969 J. M. KATZ 3,429,630

RECESS CABINETS

Filed April 10, 1967

FIG.1

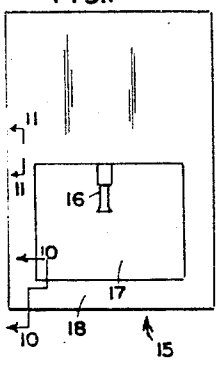


FIG.2

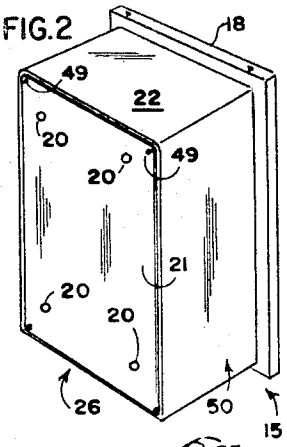


FIG.3

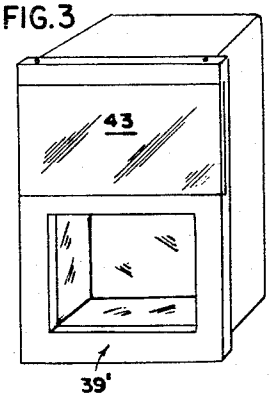


FIG.4

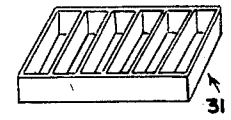




FIG.5

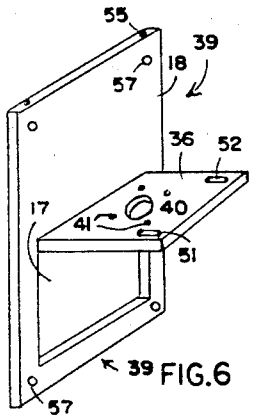


FIG.6

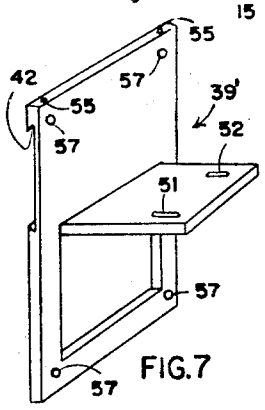


FIG.7

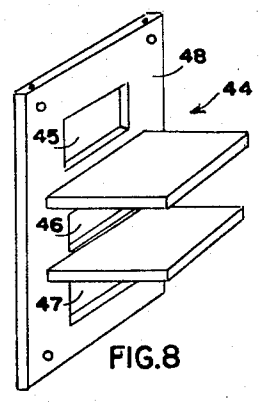


FIG.8

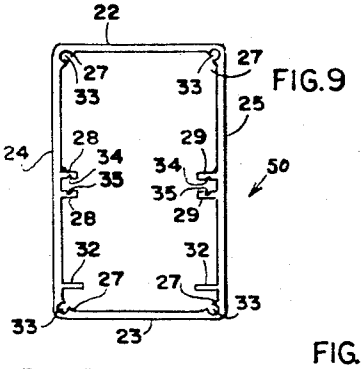


FIG.9

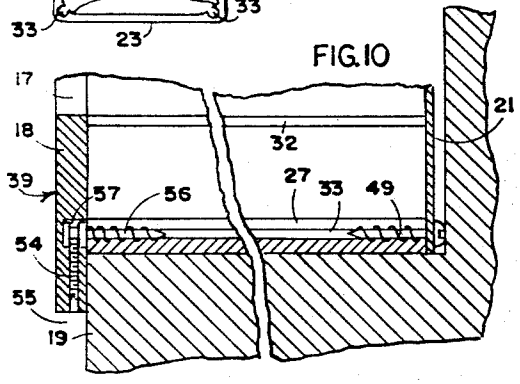


FIG.10

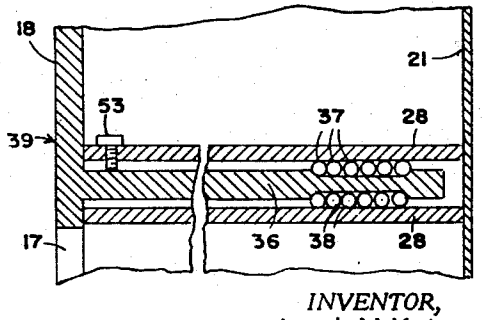


FIG.11

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RECESS CABINETS

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ABSTRACT OF THE DISCLOSURE

A length cut from an extruded tubular stock provides the top, bottom and side walls. The rear end of this tubular length is closed by a back panel. A length cut from a second extruded stock provides the front wall and an integral rearward shelf, the latter riding in tracks which are integral with the side walls. Ball bearing structure may be included to ease sliding movement. Fillets along the corners in said tubular length, each have a lengthwise passage to receive and engage screws or the like which secure the rear panel. The back surface of the front panel has a recess for a shank extending from a passage in a fillet thereat. A set screw through an edge of the front wall engages such shank to maintain the assembly. Suitable openings as need be are made in the front wall. Holes in the shelf may accommodate the mounting of a soap-dispensing device for example, whose operating member and discharge nozzle are accessible through a front wall opening. A drip collector which is cut from a third length of extruded stock may be provided, and kept from removal except upon opening the cabinet.

The present invention relates to cabinets to be set within a recess in a wall of a room, and more particularly to the type which are used to house soap dispensing devices, and for holding paper towels, facial tissues and the like, or their discards.

This type of cabinets as heretofore manufactured, usually comprise a closed box having one or more horizontal partitions. The front wall of the box extends all around and beyond the box's perimeter to provide a flange to contact the wall offering the recess and thus cover the recess. This front wall is provided with a locked hinged door for access to the interior of the cabinet. In soap dispenser combinations, the dispenser device is housed in an upper compartment, which alone has the front door, the lower compartment being open for access to the operating member of the soap dispenser and its discharge nozzle. In other cabinets, the front wall door closes the box entirely, but has suitable openings for access to the compartments.

The amount of labor involved in the manufacture of these cabinets as described, made their price rather high.

It is therefore the principal object of this invention to provide novel and improved construction for recess cabinets of this class, which requires no bending, riveting or welding operations as was heretofore the case, and which uses no doors so there is no need for hinges and their mounting, and generally reduces assembly costs. The great cost of labor is avoided by making the cabinets so that they comprise only two pieces cut from extruded forms with a simple locking means to hold them together,

and back panel which is easy to attach. Where a drip collector is required, it is also principally of an extruded piece. All this results in very economically produced products. Another object thereof is to provide novel and improved construction for recess cabinets of the character described, which requires very little of skilled help to work on the extruded stock, whose assembly requires no skill at all, and which is efficient in carrying out the purposes for which they are designed.

Other objects and advantages will become apparent as this disclosure proceeds.

In the accompanying drawing forming part of this specification, similar characters of reference indicates corresponding parts in all the views.

FIG. 1 is a front view of a cabinet embodying teachings of this invention. This cabinet is of the type for housing a soap dispensing device, of which the operating member is indicated.

FIG. 2 is a rear perspective view of the cabinet of FIG. 1.

FIG. 3 is a front perspective view of a similar cabinet, but of slightly modified construction.

FIG. 4 is a perspective view of a piece cut from an extruded form, to serve as part of the drip collector for use in the cabinets of FIGS. 1 and 3.

FIG. 5 is a perspective view of a tray or pan for use with the item shown in FIG. 4.

FIG. 6 is a perspective view of a one-piece member made of a length cut off extruded stock. This member comprises the front wall, and the partition or shelf to carry a soap-dispensing device in the upper portion of the cabinets shown.

FIG. 7 is a perspective view of a member like that shown in FIG. 3.

FIG. 8 is a perspective view of a similar member, but of modified construction.

FIG. 9 is a front view of a piece which is a length cut from extruded stock, and serves to provide the top, bottom and side walls of the box structure included in the cabinets shown.

FIG. 10 is an enlarged fragmentary section taken at line 10—10 in FIG. 1.

FIG. 11 is an enlarged fragmentary section taken at line 11—11 in FIG. 1.

In the drawing, the numeral 15 designates generally a cabinet for housing a soap-dispensing device in an upper compartment therein; the operating member, which is also the discharge nozzle of said device, being indicated at 16, and shown accessible through an opening 17 in the front wall 18. This cabinet is to be mounted in a recess in the wall 19 of a room, and secured therein by screws through holes 20 in the back wall 21. A length cut from extruded stock offers the top wall 22, the bottom wall 23, and the side walls 24, 25 of the box indicated generally by the numeral 26. This extrusion includes the interior lengthwise fillets 27 along the corners of its rectangular tubular form, as well as the opposite tracks 28, 29 along the respective side walls. To prevent the removal of the drip collector means comprising the sheet metal pan 30 which holds a length 31 cut from extruded stock, the side walls of the box may include the lengthwise ribs 32. Each of the fillets 27 has a lengthwise groove 33 whose cross section is the greater part of a circle. Each of

the tracks has a lengthwise groove whose cross section is a bit less than a semicircle, such grooves **34** being opposite the grooves **35**. These grooves **34, 35** are included if it is desired to slide the shelf **36** on ball bearings **37, 38.**

The member denoted generally by the numeral **39** is initially a length cut from extruded stock of T-shaped cross-section. Then, the shelf part has identical portions milled off or punched from its side ends, so it shall be **36** to fit between the side walls **24, 25**, and ride in tracks **28, 29**. A hole **40** is provided in the shelf **36**, for the part **16** to extend through, and also provided, are the bolt holes **41**, to mount the soap dispensing device, not shown. The opening **17** is cut in the front wall **18**. Such extrusion may include a lengthwise dovetail channel **42**, to receive a mirror **43**. To make a cabinet with compartments to hold paper towels, tissues and the like, the extruded T-stock therefor is a ninety degree angled "pie-form" in cross-section, from which the member **44** is made. When this is used, the box will be divided into three compartments, to which access is had through the holes **45, 46** and **47**, cut in the front panel **48**. It is evident that the extruded stock to include the front wall of the cabinet may be of a form to provide any number of shelves in predetermined spacing, and track members for at least one. For cabinets to hold discarded material or to serve as a hamper, there would be two "shelves," one very near the top wall and one very near the bottom wall of the extruded member denoted generally by the numeral **50**, with appropriate tracks on the side walls **24, 25**, next to and along the corner fillets **27**, which is believed readily understood without the necessity of further illustration.

When ball-bearing slide provision is to be included, then the steel balls **37, 38** are respectively confined in the closed-ended grooves as **51** and **52**, as races therefor in both shelf faces, in cooperation with the grooves **34** and **35** in the tracks. The numeral **53** is a stop screw through the front end of the track, which maintains the assembly. To lock the assembly, at one or more of the corners, the front panel **18** is provided with a set-screw **54** entered in a threaded hole **55** in a horizontal edge of said panel, to engage the head of a self-threading screw **56** in the annular channel around its head; said head being entered in a socket **57** opening in the back surface of the front panel. The rear wall **21** of the cabinet is a rectangular metal plate or of sheet metal attached with self-threading screws **49**. Important to note is that the screws **49** and **56** are entered in the grooves **33** in the member **50.**

The cost of manufacture of recessed cabinets is reduced considerably by use of the extruded stock herein taught. The material throughout is preferably aluminum, except for the screws and bearing balls, which are of steel. The cutting away of metal to form the parts as **39, 39'** and **44** may be done on a punch press, milling machine or band saw. The principal part **50** needs no machining at all. Simple jigs help at the drill press for drill work in the member as **39**. The front of the cabinet shows no attaching means. Hinges are entirely eliminated.

This invention is capable of numerous forms and various applications without departing from the essential features herein disclosed. It is therefore intended and desired that the embodiments shown herein shall be deemed merely illustrative and not restrictive and that the patent shall cover all patentable novelty herein set forth; reference being had to the following claims rather than to the specific description and showings herein, to indicate the scope of this invention.

I claim:

1. In a recess cabinet of the character described, a tubular piece cut from a length of tubular extruded stock of generally rectangular cross section, to constitute the top, bottom and side walls; said piece having fillets integral therewith therein along its corners, provided with a lengthwise passage therethrough, and each side wall having tracks parallel to said fillets, a piece cut from a second length of extruded stock, to constitute a front rectangular wall and a rectangular shelf integral therewith extending rearwardly therefrom; both the width and height of the front wall being larger than the width and height respectively of said tubular piece; the side portions of said shelf being cut away; said shelf being slidably fitted inside the tubular piece between the side walls and restrained from movement along the vertical by said tracks, and the back surface of said front wall being in contact with one end of said tubular piece, a generally rectangular back panel closing the other end of said tubular piece and covering the ends of the fillets thereat, elements having shanks securing said back panel to said tubular piece; said shanks being entered in said passages in the fillets respectively; the front wall being provided with a socket opening in its back surface and communicative with a passage in a fillet, a shank fixed in the last mentioned passage and extending into said socket, a threaded hole opening in an edge of the front wall and communicative with said socket, and a set screw in said threaded hole and engaging the shank which extends into said socket whereby the front wall is releasably secured to said tubular piece.

2. A recess cabinet as defined in claim **1**, wherein the passage in and along each fillet is a groove whose cross section is the major part of a circle.

3. A recess cabinet as defined in claim **2**, wherein each shank is a self-threading screw.

4. A recess cabinet as defined in claim **1**, wherein the threaded hole opens in a horizontal edge of the front wall, and the screw in said hole is concealed therein.

5. A recess cabinet as defined in claim **1**, wherein the front wall has at least one opening to one side of one face of the shelf.

6. A recess cabinet as defined in claim **1**, wherein the shelf extends substantially to the rear wall panel.

7. A recess cabinet as defined in claim **1**, including at least one additional shalf extending into the tubular piece.

8. A recess cabinet as defined in claim **1**, wherein the front wall has an opening below the shelf and above the bottom wall; said shelf having an opening, soap-dispensing means having its operating element and discharge nozzle extending downwardly through the opening in the shelf and accessible through the opening in the front wall, and drip-collecting means cut from a third length of extruded stock which consists of a rectangular frame having upright partitions, positioned within the tubular piece on the bottom wall; the height of said frame being less than the distance from the bottom edge of the opening in said wall, and ribs on and integral with the side walls along said fillets, immediately above the frame.

9. A recess cabinet as defined in claim **1**, wherein the front wall is provided with a channel across its front surface, to receive a mirror.

10. A recess cabinet as defined in claim **1**, wherein the shelf and its tracks having opposite grooves along the line of said tracks; the grooves in the shelf being closed-ended, and including a series of balls cached in said grooves, and a screw at the front end of a track, extending in the path of said balls.

11. In a recess cabinet of the character described, a tubular piece cut from a length of tubular extruded stock of generally rectangular cross section, to constitute the top, bottom and side walls; said piece having fillets integral therewith therein along its corners, provided with a lengthwise passage therethrough, and each side wall having tracks parallel to said fillets, a piece cut from a second length of extruded stock, to constitute a front rectangular wall and a rectangular shelf integral therewith extending rearwardly therefrom; both the width and height of the front wall being larger than the width and

height respectively of said tubular piece; the side portions of said shelf being cut away; said shelf being slidably fitted inside the tubular piece between the side walls and restrained from movement along the vertical by said tracks, and the back surface of said front wall being in contact with one end of said tubular piece, a generally rectangular back panel closing the other end of said tubular piece and covering the ends of the fillets thereat, elements having shanks securing said back panel to said tubular piece; said shanks being entered in said passages in the fillets respectively; and means for releasably securing the front wall to said tubular piece.

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U.S. Cl. X.R.

312—111, 245, 330