June 12, 1962 M. SCHWARTZ ETAL 3,038,771

BATHROOM CABINET

Filed June 29, 1960 4 Sheets-Sheet 1

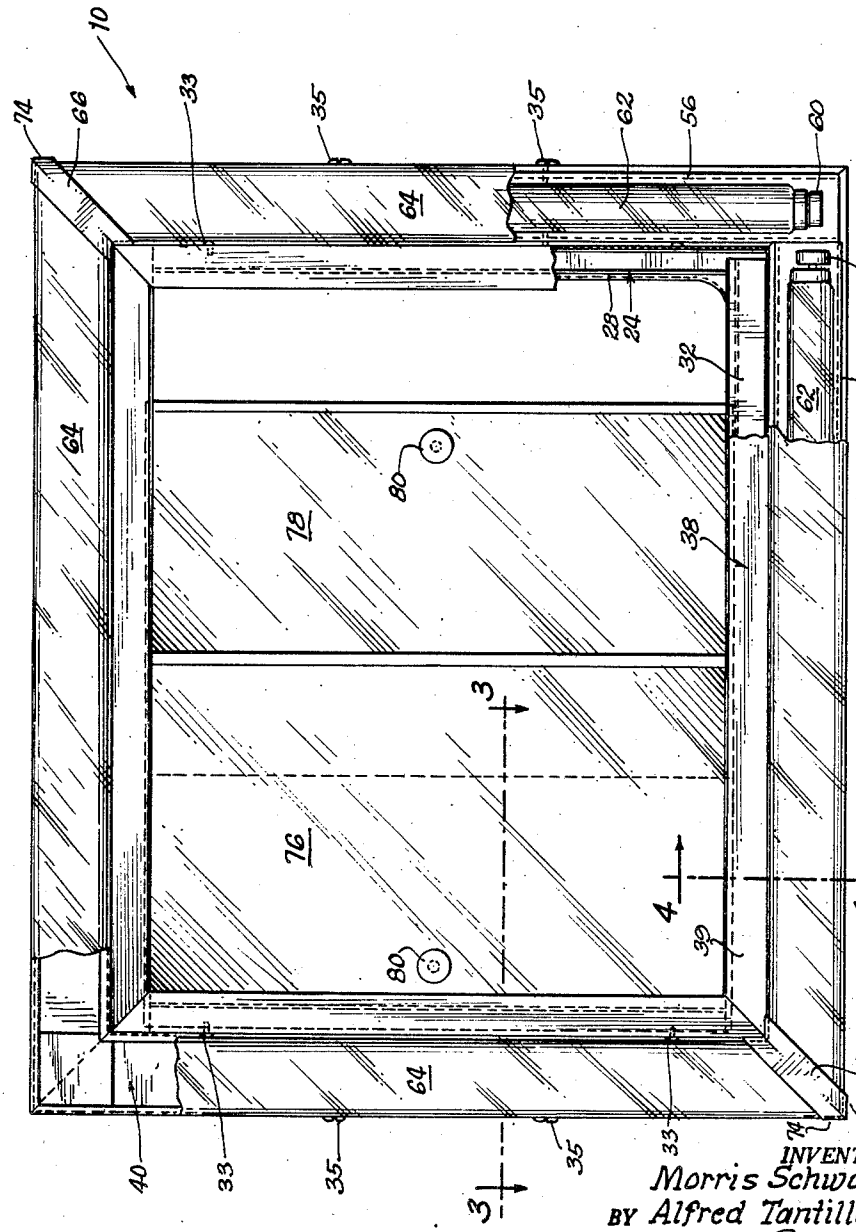


FIG. 1

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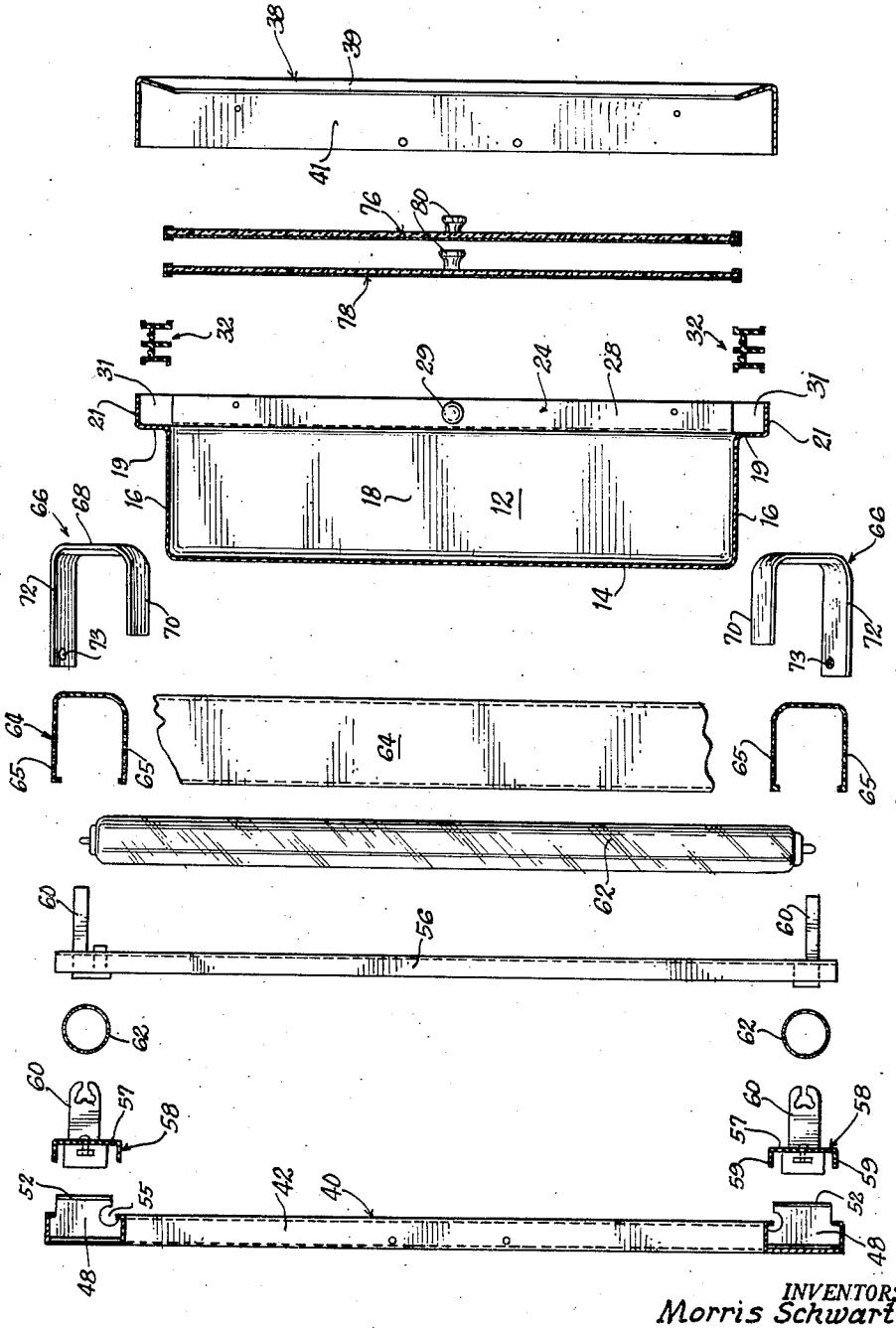


FIG. 2

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BATHROOM CABINET

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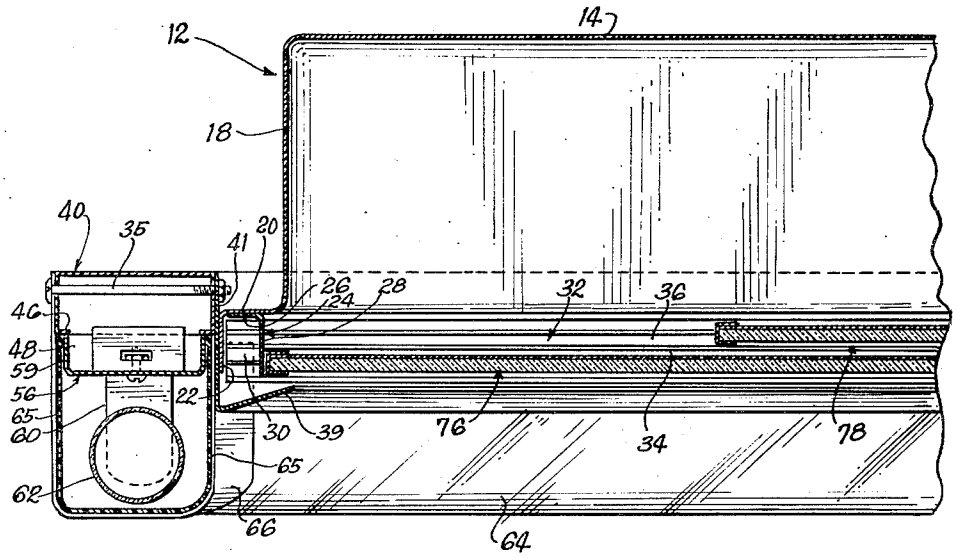


FIG. 3

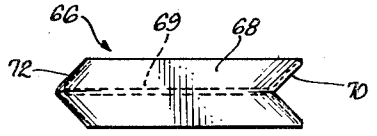


FIG. 5

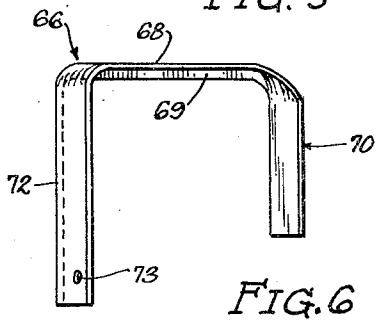


FIG. 6

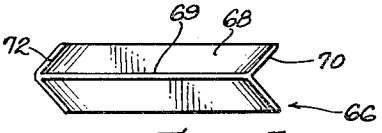


FIG. 7

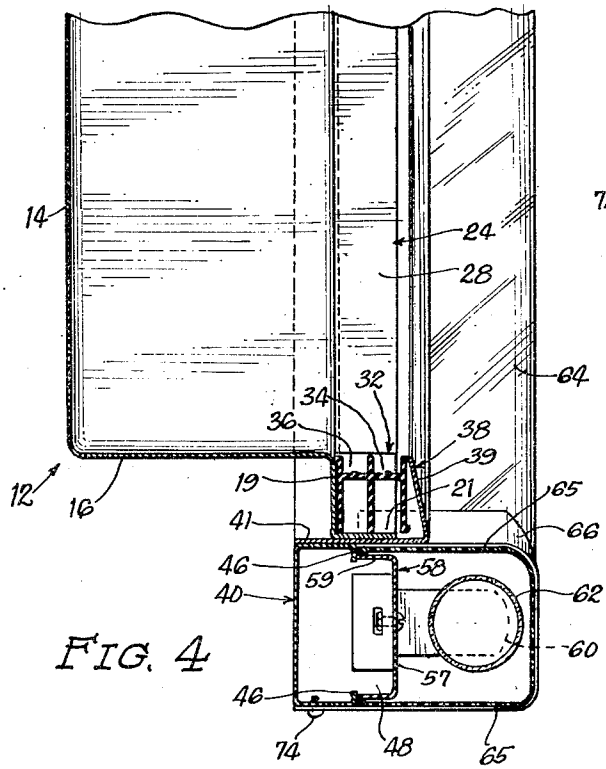


FIG. 4

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FIG. 8

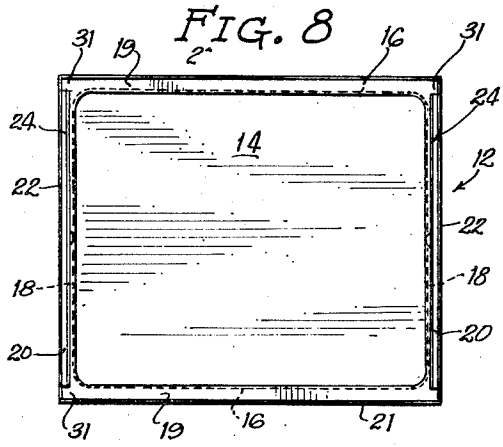


FIG. 9

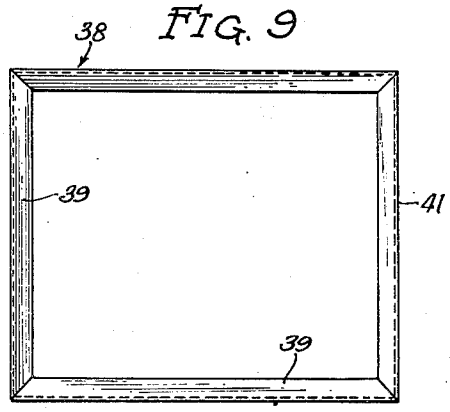


FIG. 10

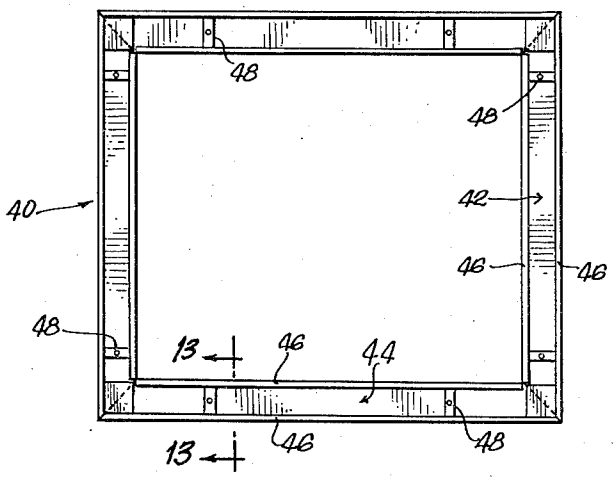


FIG. 11

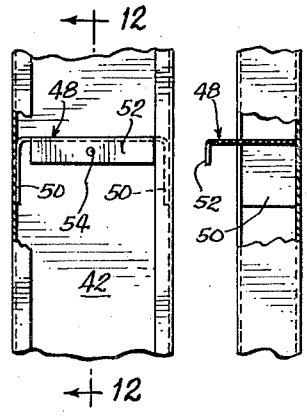


FIG. 12

FIG. 13

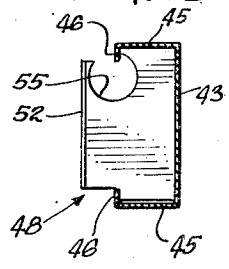
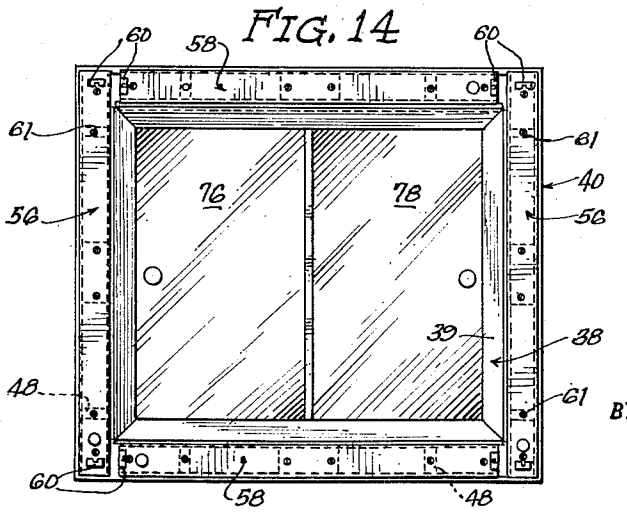


FIG. 14



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United States Patent Office 3,038,771 Patented June 12, 1962

3,038,771
BATHROOM CABINET

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Filed June 29, 1960, Ser. No. 39,569
5 Claims. (Cl. 312—223)

This invention relates to a cabinet, and more particularly to a rectangular bathroom cabinet illuminated on all four sides.

The manufacture of bathroom cabinets is highly competitive, and manfacturers are vitally interested in designing the cabinets in such a way that the cost of the parts and the labor costs involved in assembling the cabinets are minimized.

Heretofore, rectangular bathroom cabinets have been designed with fluorescent lights mounted on all four sides, but prior cabinets of this type were objectionable in that complex and expensive machines were necessary to form the parts, and the parts were often formed from expensive material. In addition, these prior cabinets were hard to assemble, which further increased the cost of their manufacture.

What is needed therefore, and comprises the principal object of this invention is a bathroom cabinet formed from inexpensive easy-to-make parts and designed so it can be quickly and economically assembled.

This and other objects of this invention will become more apparent when understood in the light of the accompanying specification and drawings wherein:

FIG. 1 is an elevational view of the improved bathroom cabinet with parts broken away to show the internal structure;

FIG. 2 is an exploded elevational view of various components of the bathroom cabinet;

FIG. 3 is a sectional view taken on the line 3—3 of FIG. 1;

FIG. 4 is a sectional view taken on the line 4—4 of FIG. 1;

FIG. 5 is a plan view of a light shield retaining strap;

FIG. 6 is an elevational view of the light shield retaining strap;

FIG. 7 is a bottom view of the light shield retaining strap;

FIG. 8 is an elevational view of the housing of the bathroom cabinet;

FIG. 9 is an elevational view of the chrome frame of the bathroom cabinet;

FIG. 10 is an elevational view of the light frame of the bathroom cabinet;

FIG. 11 is an enlarged elevational view partly in section of a portion of the light frame;

FIG. 12 is a sectional view taken on the line 12—12 of FIG. 11;

FIG. 13 is a sectional view taken on the line 13—13 of FIG. 10;

FIG. 14 is an elevational view of the bathroom cabinet shown partially assembled.

Referring now to FIG. 1 of the drawing, a bathroom cabinet indicated generally by the reference numeral 10 comprises a housing 12 formed from sheet metal or some suitable plastic. As seen in FIGS. 2, 3 and 8, the housing has the appearance of a rectangular open faced box and includes a back wall 14, top and bottom walls 16 and side walls 18.

The free ends of the top and bottom walls are bent transversely to form top and bottom front flanges 19, and the free ends of the side walls are bent transversely to form side front flanges 20 (see FIG. 8). These front flanges are all parallel to the back wall 14. The free ends of flanges 19 are bent forwardly and transversely to form

top and bottom peripheral flanges 21, and the free ends of flanges 20 are bent forwardly and transversely to form side peripheral flanges 22. The peripheral flanges are all perpendicular to the back wall (see FIGS. 3 and 4).

As best seen in FIGS. 1, 3 and 8, the housing includes elongated spacer members 24, L-shaped in cross section. These inexpensive easy-to-make spacer members include a mounting member 26 secured by any suitable means such as welding to side front flanges 20, and they include a transverse member 28. Member 28 serves as a door jamb, and is in spaced parallel relation to side flanges 22 defining a space 30 therebetween. A resilient bumper 29 is attached thereto for reasons to become apparent below. Space 30 is adapted to comfortably accommodate mounting elements such as screw heads or nuts.

As best seen in FIGS. 2 and 8, the ends of spacer members 24 are spaced in relation to top and bottom peripheral flanges 21, defining thereby upper and lower elongated seats 31 for tracks 32. These tracks, as will become apparent below, accommodate mirrored doors or closures.

Tracks 32 are formed from straight plastic strips and they extend the width of the housing 12 (see FIG. 1). The width of each plastic strip corresponds to the width of the seats 31 so that when the strips are placed on their seats they are held thereby in their proper position. The strips are provided with spaced parallel grooves or guideways, which form guide channels 34 and 36 which actually receive the upper and lower ends of the mirrored closures (see FIGS. 1 and 4).

A rectangular chrome frame 38, which may be formed economically is attached to the periphery of the housing 12 (see FIGS. 9 and 14). The frame is simple and includes only a beveled front portion 39 and an attached rearwardly extending portion 41 (see FIG. 3). This depending portion 41 loosely embraces and is secured to the peripheral flanges 21 and 22. In the embodiment shown the frame is formed from sheet metal, but it is understood that it could also be formed by a molding process from plastic and treated to look like chrome or the frame may be given some other ornamental effect.

The chrome frame 38 has a plurality of functions. First of all (as seen in FIG. 1), it beautifies the front of the housing by completely covering flanges 19, 20, 21 and 22. In addition (as seen in FIGS. 1 and 4), the bevelled front portion 39 covers and holds tracks 32 on seats 31. Besides all this, the rearwardly extending portion 41 serves as a base so that the rectangular light frame 40 can be attached thereto (see FIGS. 3, 10 and 14).

The rectangular light frame 40 is formed from easy-to-make straight sheet metal strips 42 and 44. These strips are channel shaped in cross section and each strip includes a web portion 43 and leg portions 45. Inturned support flanges 46 are formed on the ends of each of the leg portions (see FIGS. 10 and 13). These strips are secured together by any suitable means such as welding, to form a rectangular frame, and as will become apparent below, each channel shaped strip serves as a wire way to contain the wires for the lighting fixture and to hold other electrical elements such as the ballast. It is also apparent that under some circumstances the light frame could be molded as a unit from some plastic.

Spaced parallel reinforcing and mounting ribs 48 are secured to each channel shaped strip in spaced parallel relation to each other (see FIGS. 10, 11, 12, and 13). These ribs include side flanges 50 which are secured by any suitable means to the leg portions 45 of the channel shaped strips 42 and 44 (see FIG. 11). In addition, the free ends of the ribs 48 which extend above the inturned flanges 46 are bent transversely parallel to the web portions 43 to form support flanges 52. These support

flanges are parallel with the web portion of the strips 42 and 44 (see FIG. 12). Each mounting flange is provided with a screw receiving opening 54 for reasons to be described below. An opening 55 is formed in the body of the ribs to permit wires in the channel shaped strips 42 and 44 to pass therethrough (see FIG. 13). It is apparent that these ribs serve a plurality of functions. First of all they strengthen strips 42 and 44. In addition, they serve to position and hold the support and reflector members 56 and 58 (see FIGS. 3, 4 and 14).

These support and reflector members 56 and 58 are channel shaped in cross section and include a web 57 and legs 59. The separation of the legs 59 is substantially equal to the width of the support flange 52 on the ribs 48 (see FIG. 4). With this arrangement, the legs 59 of the members 56 and 58 embrace the upstanding edges of the spaced parallel ribs 48 and the ends of the legs abut against flanges 46 (see FIGS. 3 and 4). This centers the members 56 and 58 on the flanges 46. The webs 57 of the members 56 and 58 are held to flanges 52 by screws 61 which extend therethrough into engagement with the screw receiving openings 54. This forms a generally closed moisture resistance housing adapted to safely accommodate the electrical elements to be described below (see FIG. 3).

As best seen in FIG. 2, sockets 60 for fluorescent lamps are screw mounted in facing spaced parallel relation on the members 56 and 58. These sockets are designed to accommodate fluorescent lamps 62 which when mounted in these sockets and lit form an illuminated rectangular frame around the periphery of the housing 12. These lamps are covered by translucent plastic shields 64. The ends of these shields are mitered and when assembled their adjacent ends are covered and held together by resilient plastic corner straps 66 to form a picture frame around the housing. Suitible wiring and switches are provided for the lamps in a manner well known in the art.

The straps 66 include a web portion 68 and depending leg portions 70 and 72 (see FIGS. 5 and 6). The web portion has a generally planar upper surface and (as seen in FIG. 7), a centrally positioned rib 69 extends from the lower surface. This rib both strengthens the web portion of the strip and fits between the adjacent mitered ends of the shields 64 to properly position them.

The depending leg portions 70 and 72 are angle shaped in cross section, and the apex of the angle of the surfaces of each leg portion point in the same direction. In addition, the sides of legs 70 both embrace the corners of the chrome frame 38 and fit into the abutting inner corners of the light shields 64 (see FIGS. 1 and 4). The leg portions 72 engage the outer corners of the light shields to embrace the light shields therebetween. As seen in FIGS. 1, 4 and 6, holes 73 are provided in the lower surfaces of leg portions 72 to receive screws 74 for fastening these leg portions to light frame 40. With this arrangement, the shields are held in place on the light frame and can be quickly removed by removing screws 74. It is also noted that the resilience of the plastic straps permits them to be bent out of embracing engagement with the light shields so that lamps 62 can be quickly replaced without removing the screws 74 that secure the straps 66 to the frame 40.

Mirrored closures 76 and 78 are provided, and the upper and lower edges of these closures ride in guideways 34 and 36 respectively so that the closures are free to slide therein and can be moved to open or close off the cabinet. These closures are provided with suitable knobs 80 for convenience in manipulating them.

The speed and simplicity of assembly is clearly shown in FIG. 2. First the tracks 32 are inserted in space 31 in housing 12 with the mirrored enclosures mounted thereon. Next, frame 38 is fitted and secured to housing 12 by screws 33. After this, frame 40 is fitted on and secured to frame 38 by screws 35. Next, the reflecting members 56 and 58 are secured to frame 40 and the lamps 62 are mounted and tested. After this, the plastic corner straps

are fitted over the adjacent ends of the light shields on diffusers 64 and are secured to frame 40 by screws 74 to complete the assembly.

The invention may be embodied in other forms without departing from the spirit or essential characteristics thereof as set forth in the claims, and the present embodiment is therefore to be considered as illustrative and not restrictive, and it is intended to include all changes which come within the scope and range of the claims.

We claim:

1. A bathroom cabinet comprising in combination a box shaped open faced housing including a back wall, top and bottom walls, and side walls, the free ends of said walls bent transversely to form outwardly projecting top and bottom front flanges and side front flanges parallel to said back wall, top and bottom and side peripheral flanges secured to the free edge of said front flanges and projecting forwardly therefrom in a direction substantially perpendicular to the back wall, spacer members having opposed ends, said spacer members perpendicular to and mounted on said side front flanges, the opposed ends of each spacer strip in uniformly spaced relation to the top and bottom peripheral flanges and defining upper and lower seats thereby, tracks mounted in said seats, said tracks having spaced parallel guide channels, mirrored closure members having upper and lower ends riding in said guide channels whereby said closure members can move from a cabinet open position to a cabinet closed position, a first rectangular chrome frame having a beveled front portion and an attached rearwardly extending portion, said rearwardly extending portion of said first frame embracing and secured to said peripheral flanges, said beveled portion covering said front and peripheral flanges and said tracks to beautify the cabinet and to hold said tracks on said seats, and a second frame formed from sheet material strips connected together to form a rectangle, each strip channel shaped in cross section with a web portion and transversely connected leg portions, inturned flanges secured to the free ends of the leg portions of said strip, spaced parallel ribs secured to the leg portions of each strip to strengthen them, each rib extending above said inturned flanges and terminating in a transverse support flange, a channel shaped member for each strip, said member including a web and transverse legs, the legs of each member resting on said inturned flanges and the web of each member engaging and secured to said support flanges to form a closed housing between the web of the member and the spaced parallel web portion of the strip, said housings adapted to accommodate electrical components, light sockets mounted on the web of each member, fluorescent lights mounted in said sockets, translucent light shields positioned over said fluorescent lights, said light shield having mitered ends positioned in closely spaced relationship to form a picture frame around the surface of said housing, and corner straps embracing the mitered ends of said light shields, and secured to said second frame to hold the light shields in a fixed position over said fluorescent lights.

2. The bathroom cabinet described in claim 1 wherein each of said corner straps embracing the mitered ends of said light shields is formed from a resilient material and comprises a web portion and depending leg portions, said web portion having a planar upper surface and a centrally positioned rib depending from the lower surface, each leg portion angle shaped in cross section and the angled surfaces of one leg portion engaging the inner corners of the mitered ends of the light shields and the angled surfaces of the other leg portion engaging the outer corners of the mitered ends of the light shields to embrace the light shields therebetween.

3. The bathroom cabinet described in claim 1 wherein each track comprises a straight plastic member with spaced parallel grooves formed therein, the length of each plastic member substantially equal to the width of the housing.

4. A light frame for a bathroom cabinet, said light

frame formed from sheet material strips connected together to form a rectangle, each strip channel shaped in cross section with a web portion and transversely connected leg portions, inturned flanges secured to the free ends of the leg portions of the strip, spaced parallel ribs secured to the leg portions of each strip to strengthen them, each rib extending above said inturned flanges and terminating in a transverse support flange, a channel shaped member for each strip, said member including a web and transverse legs, the legs of each member resting on said inturned flanges and the web engaging and secured to said support flanges to form a closed moisture resistant housing between the web of the member and the spaced parallel web portion of the strip to accommodate electrical

components, said web of said member adapted to hold light sockets and lights thereon.

5. The light frame described in claim 4 wherein said ribs having openings to permit wires to pass therethrough.

References Cited in the file of this patent

UNITED STATES PATENTS

2,348,658	Slaughter	May 9, 1944
2,682,090	Lautenschlager	June 29, 1954
2,694,139	Zurawski	Nov. 9, 1954
2,758,900	Marchand	Aug. 14, 1956
2,876,056	Berger	Mar. 3, 1959
3,004,815	O'Kain	Oct. 17, 1961