June 30, 1931. S. HAMMER 1,812,404

CABINET

Filed March 14, 1930 2 Sheets-Sheet 1

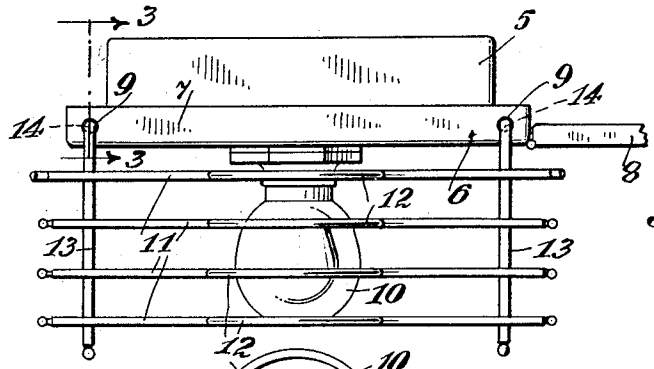


Fig. 1.

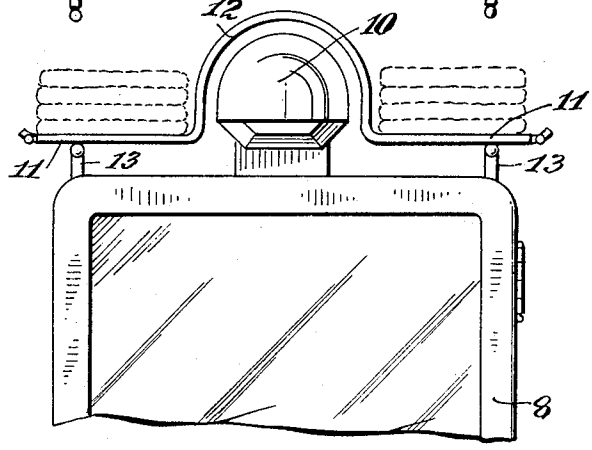


Fig. 2.

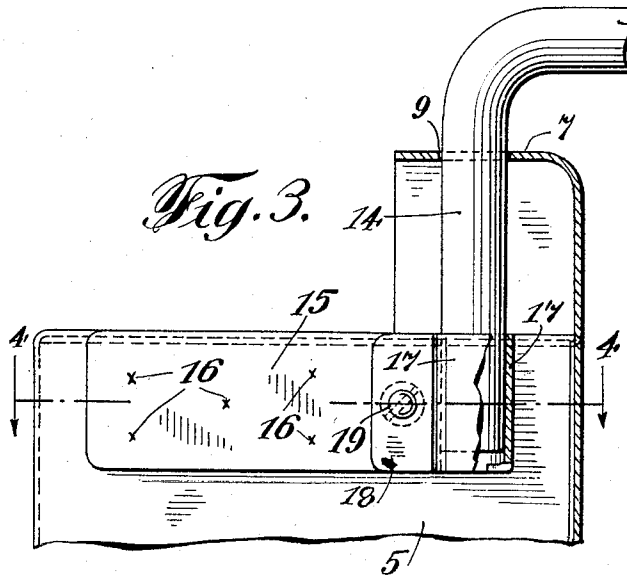


Fig. 3.

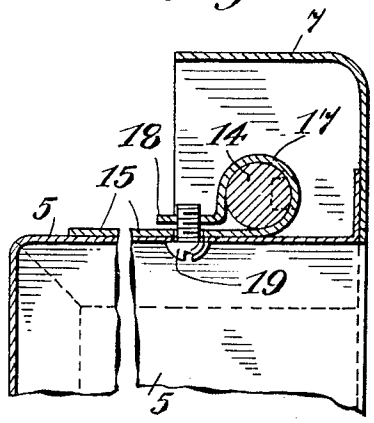


Fig. 4.

INVENTOR
Samuel Hammer
BY C. P. Goepel
his ATTORNEY

June 30, 1931. S. HAMMER 1,812,404

CABINET

Filed March 14, 1930 2 Sheets-Sheet 2

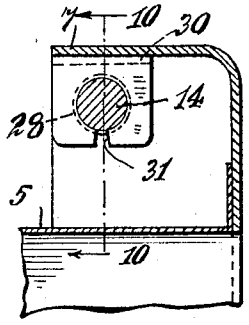


Fig. 9.

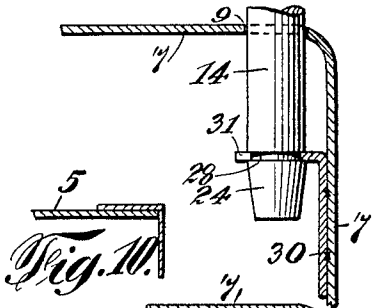


Fig. 10.

Fig. 5.

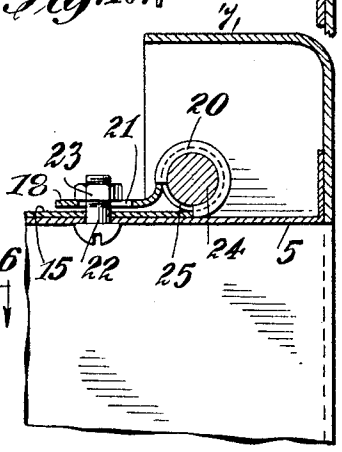


Fig. 6.

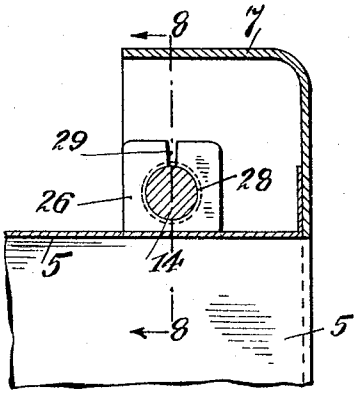


Fig. 7.

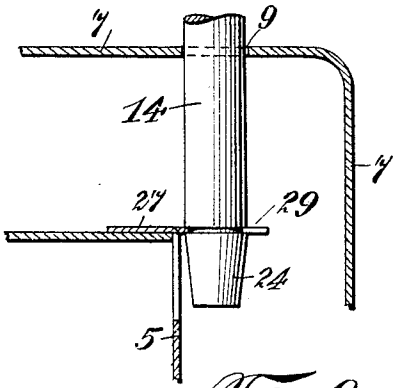


Fig. 8.

INVENTOR
Samuel Hammer
BY C. P. Goepel
his ATTORNEY

Patented June 30, 1931

1,812,404

UNITED STATES PATENT OFFICE

SAMUEL HAMMER, OF BROOKLYN, NEW YORK, ASSIGNOR TO UNITED METAL BOX CO. INC., OF BROOKLYN, NEW YORK, A CORPORATION OF NEW YORK

CABINET

Application filed March 14, 1930. Serial No. 435,819.

This invention relates to cabinets, and more particularly to that type of cabinet widely used as part of the furnishings or equipment in hotel bath rooms which is provided as an adjunct or cabinet accessory, with a towel supporting rack.

It is the general object and purpose of my present invention to provide a simple, durable and reliably operating means for easily, quickly and securely attaching and supporting the towel rack in its properly assembled relation to the cabinet structure.

Generically considered, the invention comprehends the provision in combination with a cabinet body having a front marginal wall engaging frame, the top flange of which is provided with openings adjacent opposite sides of the frame, of a means positioned below said flange and wholly concealed from view adapted to clampingly grip and hold the ends of towel rack supporting rods inserted downwardly through said openings in the frame flange.

In one embodiment of the invention, I may provide an attaching and holding device for the above purpose in the form of a metallic strap having an expansible and contractable end to engage the towel rack rod and means adjustable from the interior of the cabinet for contracting said end of the metal strap and causing the same to tightly clamp and secure the rod against movement with respect to the cabinet body.

It is also another object of my invention in another embodiment thereof, to provide the ends of the towel rack rods and the clamping or holding device therefor with coacting means automatically operating without subsequent manual adjustment upon the downward insertion of the rods through the openings in the frame flange of the cabinet to securely lock and hold said rods against axial shifting movement in either direction relative to the cabinet frame.

With the above and other objects in view, the invention consists in the improved cabinet and towel rack attaching means therefor as will be hereinafter more fully described, illustrated in the accompanying drawings and subsequently incorporated in the subjoined claims.

In the drawings, wherein I have disclosed several simple and practical embodiments of the invention, and in which similar reference characters designate corresponding parts throughout the several views,—

Figure 1 is a top plan view of a bath room cabinet showing a towel rack in assembled relation therewith and the cabinet door in open position;

Fig. 2 is a fragmentary front elevation;

Fig. 3 is a vertical sectional view on an enlarged scale taken substantially on the line 3—3 of Fig. 1;

Fig. 4 is a horizontal sectional view taken on the line 4—4 of Fig. 3;

Fig. 5 is a vertical section similar to Fig. 3 illustrating an alternative embodiment of the device;

Fig. 6 is a horizontal sectional view taken on the line 6—6 of Fig. 5;

Fig. 7 is a sectional view similar to Fig. 6 showing another form of the invention;

Fig. 8 is a vertical sectional view taken on the line 8—8 of Fig. 7;

Fig. 9 is a horizontal sectional view similar to Fig. 7 illustrating a further modification of the device, and

Fig. 10 is a vertical sectional view taken on the line 10—10 of Fig. 9.

Referring in detail to the drawings and for the present more particularly to Figs. 1 to 4 thereof, 5 designates a wall cabinet of the type in which the cabinet body is adapted to be suitably mounted and arranged within a recess provided in the face of the wall. The walls of this cabinet body are welded or otherwise suitably secured at the front open side of the cabinet to a marginal front frame 6 which is die-stamped or formed from sheet metal of suitable gauge to substantially the cross sectional shape shown in Fig. 4 of the drawings, so that the outer rearwardly extending top, bottom and side flanges of this frame as indicated at 7 are spaced from the corresponding body walls of the cabinet and by contact at their rear edges with the face of the building wall, completely conceal the opening or recess within which the body of

the cabinet extends. To one side of this front marginal frame 6 of the cabinet, the usual door indicated at 8 is hinged. The top flange 7 of the frame 6 adjacent each end thereof is provided with an opening 9 therein, the purpose of which will presently appear.

At the top center of the cabinet, a suitable mount or support for an electric lamp and its globe such as that indicated at 10 is provided. The towel rack as herein shown, consists of a plurality of spaced horizontally disposed rods 11, the central portions of which are upwardly bowed or curved to accommodate the lamp globe 10. Adjacent to their opposite ends, these rods 11 are welded or otherwise rigidly secured to the transverse rods 13, each of which has a rear vertically disposed end portion 14 adapted for insertion downwardly through one of the openings 9 in the top flange of the cabinet frame 6.

For the purpose of quickly and securely fastening or attaching the ends 14 of the rods 13 in fixed relation to the cabinet body, in one form of my invention, I provide the sheet metal straps 15 which extend horizontally upon the outer faces of the opposite side walls of the cabinet body adjacent their upper ends and are securely welded thereto at a number of spaced points by the spot welds indicated at 16. The forward end portions of these straps 15 remain free or unattached to the cabinet walls and are bent to provide open substantially cylindrical loops as shown at 17 positioned substantially in coaxial relation with the respective openings 9 in the top flange of the cabinet frame 6. The extremities 18 of these strap loops project rearwardly and are provided with threaded openings to receive the screws 19 loosely positioned through openings in the fixed portions of the straps and the side walls of the cabinet body and having grooved heads on their inner ends. By use of the ordinary screwdriver, these screws can be easily adjusted so that after the rod ends 14 have been inserted downwardly through the openings 9 and positioned through the loops 17, the said loops can be contracted and caused to tightly bind or clamp upon the ends of the rods 13. In this manner, the towel rack will be securely held in fixed assembled relation with respect to the body of the cabinet and its frame 6. It will be noted that this holding or supporting means for the towel rack is completely concealed from view by the frame 6 so that it will not detract from the neat ornamental appearance of the cabinet, which is an objectionable feature of those articles of this class wherein the rack is either riveted, welded or otherwise secured to the outer sides of the side flanges of the cabinet frame 6 or is attached to separate supporting brackets.

In Figs. 5 and 6 of the drawings, I have shown a somewhat modified form of the invention whereby automatic locking of the end rods of the towel rack in assembled relation with the cabinet is obtained, thereby eliminating the necessity of further manual adjustment of the attaching means. In this construction, similar metal straps having the expansible and contractable looped ends are employed as above described, but each of the strap loops is provided at its upper end with a narrow inwardly turned flange 20 and the free rearwardly extending end of the strap is provided with a longitudinal slot 21 therein to receive the end of a threaded bolt 22 disposed through coinciding openings in the fixed part of the strap and the side wall of the cabinet. A nut 23 threaded upon said bolt bears against the face of the strap end.

In this modified construction, the vertically disposed portions 14 of the towel rack rods 13 have their lower ends slightly tapered or conically formed as shown at 24 and are provided at the upper ends of these tapered portions with the annular grooves shown at 25. Before shipment of the cabinets, the nuts 23 are properly adjusted until the inner diameter of the flanges 20 of the strap loops is substantially the same as the base diameter of the groove 25 in the towel rack rod. Therefore, after the cabinet has been mounted in the wall recess, it is only necessary to then insert the vertical parts 14 of the rods 13 downwardly through the openings 9 in the top flange of the cabinet frame 6 so that the conical or tapered extremities 24 thereof, the smallest diameter of which is slightly less than the internal diameter of the flange 20, will readily enter the upper ends of the strap loops. As said tapered ends of the rods are forced downwardly, the strap loops are expanded, such expansion being permitted by provision of the slot 21 in the strap and which permits the same to slide relative to the nut 23. When the groove 25 comes into alignment with the flange 20, the strap loop will immediately contract owing to the inherent resiliency of the metal so that said flange enters said groove and has close binding contact upon the base wall thereof, as shown in Fig. 5 of the drawings. In this manner, and without further manual adjustment of the strap loops, the towel rack rods are locked and fixedly held against vertical movement in either direction relative to the top flange on the frame 6.

In Figs. 7 and 8 of the drawings, I have illustrated a structural variation of the last described embodiment of my invention, in which instead of providing the separate metal straps 15 and welding the same to the side walls of the cabinet, I may stamp from the body of each side wall adjacent its upper end, an ear or lug 26. This ear or lug is pressed outwardly to a position at right angles to the plane of the side wall and remains integrally connected with the inwardly extending flange 27 which is lapped upon

the top wall of the cabinet body and welded thereto.

The lug or tongue 26 is provided with an opening 28 therethrough which is normally of a diameter substantially the same as the base diameter of the groove 25 in the rod 13. The lug 26 is centrally split as at 29 from its outer end edge inwardly to the opening 28. Thus, it will be understood that under the pressure of the tapering end 24 of rod 13 on the edges of the opening 28 at opposite sides of the split 29, as said end of the rod 13 is forced downwardly through the opening, the parts of the lug 26 at the opposite sides of said split are forced apart or expanded in the plane of said lug. When the groove 25 in the rod 13 is disposed in the plane of the lug, said expanded portions of the lug immediately resume their formed normal positions and the parts of the lug surrounding the opening 28 tightly seat within said groove, thus securely locking the rod 13 against vertical movement.

In Figs. 9 and 10 of the drawings, I show a further variation of the form of the invention illustrated in Fig. 5 wherein a substantially L-shaped bracket plate 30 has the relatively long leg thereof securely welded to the inner face of the side flange 7 of the frame 6, it being understood of course, that one of these brackets is thus welded to each side flange of the frame. As herein shown, the other part 31 of the bracket extends inwardly from the upper end of the fixed leg 30 thereof. The part 31 is split and provided with the opening therein to receive the tapered extremity of the rod 13 in the same manner as above explained in connection with the form of the invention illustrated in Fig. 7 of the drawings. In this latter structural embodiment of my invention, it will be appreciated that by thus securing the attaching and supporting brackes for the towel rack rods to the side flanges of the frame 6, the said rods 13 may be spaced apart for a somewhat greater distance than when the attaching and supporting means for said rods is applied to the side walls of the cabinet body. The expansible and contractable parts 30 of the attaching brackets may also be located at a less distance from the top flange 7 of the frame 6 and the vertical portions 14 of the rods 13 correspondingly shortened. This results in greater stability in the connection between the towel rack and the cabinet and with less liability of distortion or bending of the attaching plate under momentary excessive strains.

From the foregoing description considered in connection with the accompanying drawings, the novel structural features of the several embodiments of the invention herein disclosed as well as the advantages thereof in practical operation and use will be clearly understood. It will be seen that each of the structural forms of the invention provides a device which is mechanically simple and will not materially add to the production costs of such cabinets, and which will also rigidly secure and retain the towel rack in its assembled fixed relation relative to the cabinet, while at the same time all of the parts of this attaching or securing means are completely concealed or hidden from view.

While I have herein disclosed several preferred embodiments of the device, it is also to be understood that these illustrated constructions may be susceptible of embodiment as to their essential features in various other structural forms. Accordingly, the privilege is reserved of resorting to all such legitimate changes in the form, construction and relative arrangement of the various parts thereof as may be fairly incorporated within the spirit and scope of the invention as claimed.

I claim:

1. In combination with a cabinet having a front frame and a towel rack provided with spaced rods inserted through openings in said frame, attaching devices mounted upon the cabinet structure at the rear side of said frame, each of said devices including relatively yieldable parts between which the end of one of said rods is received and clampingly held in assembled relation to the cabinet frame.

2. In combination with a cabinet having a front frame and a towel rack provided with spaced rods inserted through openings in said frame, attaching devices mounted upon the cabinet structure at the rear side of said frame, each of said devices including means substantially in alignment with one of said openings and spaced therefrom and having yieldable parts to substantially embrace the end of one of the rods and clampingly hold the same in assembled relation to the cabinet frame.

3. In combination with a cabinet having a front frame provided with a rearwardly extending wall engaging flange having openings in the top thereof adjacent each of its ends and a towel rack provided with spaced rods inserted through said openings in the frame flange; attaching devices mounted upon the cabinet structure at the rear side of said frame and each comprising an expansible and contractable resilient metal loop adapted to receive the end of one of the rods and clampingly secure the same in assembled relation to the cabinet frame.

4. In combination with a cabinet having a front frame provided with a rearwardly extending wall engaging flange having openings in the top thereof adjacent each of its ends and a towel rack provided with spaced rods inserted through said openings in the frame flange; an attaching member mounted upon the cabinet structure at the rear side of the frame below each of said openings, each

of said members comprising resiliently yieldable clamping means, and said towel rack rods being each provided at their ends with means to coact with said yieldable means of the respective attaching members and automatically effect an interlocking connection between said members and the rods to fixedly secure the latter in assembled relation to the cabinet frame.

5. In combination with a cabinet having a front frame provided with a rearwardly extending wall engaging flange having openings in the top thereof adjacent each of its ends and a towel rack provided with spaced rods inserted through said openings in the frame flange; said towel rack rods each terminating in a tapered portion and having an annular groove at the larger end of said tapered portion, and attaching members mounted upon the cabinet structure at the rear side of the frame below each of said openings comprising yieldable locking means adapted to be engaged and expanded by the tapered end of the towel rack rod, said means upon return to normal position entering the groove in said rod to thereby fixedly lock the rod in assembled relation to the cabinet frame.

6. A cabinet for use in combination with a towel rack, said cabinet including a body, a wall engaging frame secured to and surrounding the open side of the cabinet body, said frame adjacent each side thereof having an opening in its top portion to receive a part of the towel rack, and devices carried by the cabinet each having means adapted to coact with one of the rack parts to secure the same in its assembled position within the opening of the cabinet frame.

7. A cabinet for use in combination with a towel rack, said cabinet including a body, a wall engaging frame secured to and surrounding the open side of the cabinet body, said frame adjacent each side thereof having an opening in its top portion to receive a part of the towel rack, and attaching members permanently fixed to the cabinet below and in spaced relation to each of said openings, each of the attaching members having resiliently yieldable means for interlocking engagement with means on the respective towel rack parts to secure the latter in assembled position within the openings of the cabinet frame.

8. A cabinet for use in combination with a towel rack having spaced parts, said cabinet including a body, a wall engaging frame secured to and surrounding the open side of the cabinet body, said frame adjacent each side thereof having an opening in its top portion to receive one of said parts of the towel rack, and an attaching member secured to the inner face of each side portion of said frame below one of the openings therein and having an angularly disposed end embodying spaced relatively expansible sections, said sections of the attaching member being adapted to interlockingly engage means provided on the rack part whereby the rack parts are secured in assembled positions within the openings of the cabinet frame.

9. A wall cabinet including a body having a wall engaging flange surrounding the open side of the body and spaced from the walls thereof, said flange having an opening therein to receive a supporting element, and means carried by the cabinet structure between said flange and the cabinet body and in alignment with said opening having parts to automatically engage a supporting element inserted through said opening to secure the same against movement from its assembled position with relation to said wall engaging flange.

10. A wall cabinet including a body having a wall engaging flange surrounding the open side of the body and spaced from the walls thereof, said flange having an opening therein to receive a rack supporting element, and a resiliently expansible and contractable member mounted upon the cabinet structure between a wall thereof and said flange in alignment with said opening adapted to automatically coact with a supporting element inserted through said opening and secure the same in assembled position within the opening of said flange.

In testimony that I claim the foregoing as my invention, I have signed my name hereto.

SAMUEL HAMMER.