Dec. 19, 1944. C. DAUM 2,365,252

SHELF SUPPORTING STRUCTURE

Filed May 24, 1944

FIG. 1

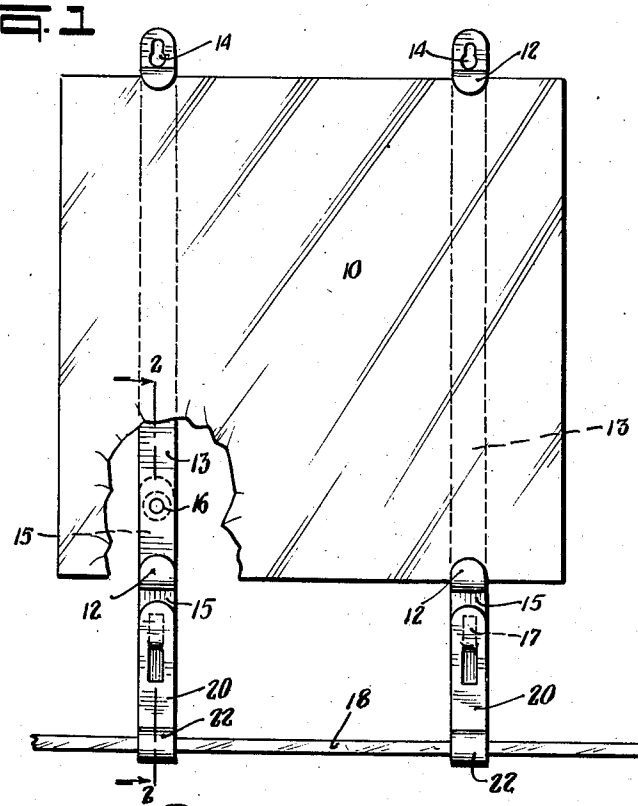


FIG. 2

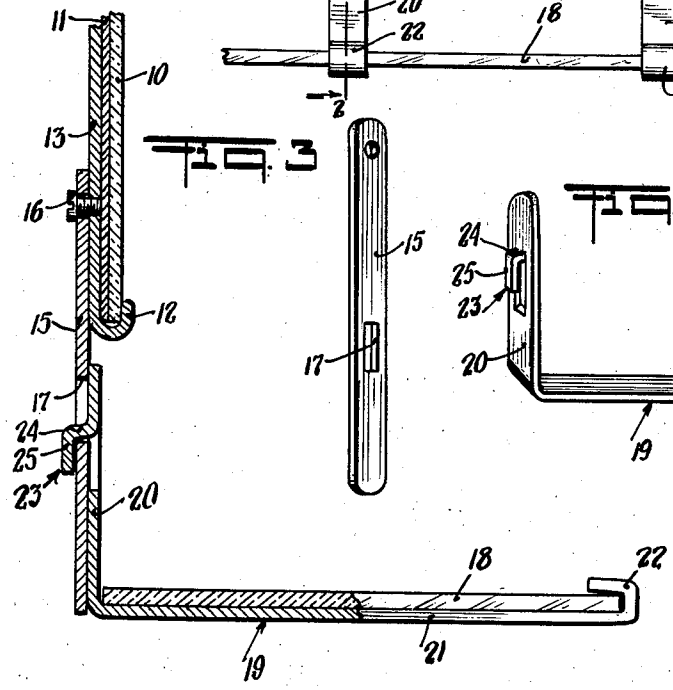
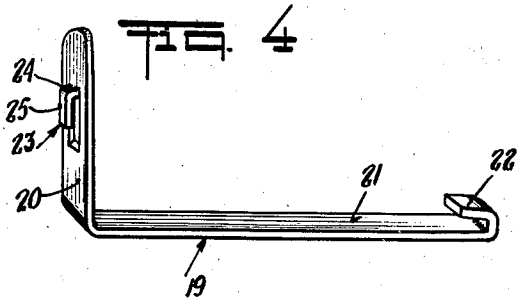


FIG. 3

FIG. 4



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SHELF SUPPORTING STRUCTURE

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6 Claims. (Cl. 248—235)

This invention generally relates to shelf supporting structures, and is more specifically directed to the provision of novel means for removably mounting a glass shelf or the like underneath a wall mirror.

For the purpose of supporting shelves underneath wall mirrors, it has been heretofore customary to provide rigid members attached to the frame or backing of the mirror and to rigidly secure to such members, by means of screws, bolts or similar fastening means, brackets adapted to carry and hold the shelf. It is a serious drawback of these structures that the shelf-carrying brackets cannot be readily disconnected from their supporting members whenever it is necessary or desirable to do so. For instance, while the shelf may be usually slid sideways out of the brackets, this proves sometimes impossible because the shelf fits too snugly in the brackets, or because the mirror is placed in a recess of the wall which does afford sufficient lateral clearance, or for other reasons, so that in order to free the shelf it becomes necessary to disconnect the brackets from the mirror. In such cases, the aforementioned conventional structures require that the bracket fastening screws or bolts be removed, and subsequently replaced to reassemble the brackets with the mirror, which involved the use of tools and is at best inconvenient, and may even result in breaking the shelf when the operation is performed by an unskilled person.

It is therefore the general object of this invention to provide novel and improved means for mounting a glass shelf or the like underneath a mirror, wherein the connection of the shelf-carrying brackets with the mirror is entirely independent of bolts, screws or similar fastening means such as heretofore employed, the structure comprising instead cooperating elements adapted to be interconnected in such a manner as to permit of readily removing and replacing the brackets whenever desired, without the use of any tools.

More specifically, it is an object of the invention to provide shelf-carrying brackets adapted for connection with suitably shaped members associated with the mirror, the brackets being maintained in interlocked relation with these latter members to suspend the shelf below the mirror in predetermined position, by the weight of the shelf itself.

It is a further object of the invention to provide supporting members for the brackets having slots therein, and means integral with the brackets adapted to be inserted through said slots and to be moved into engagement with surfaces of said supporting members, to connect the brackets thereto and thereby associate the shelf with the mirror.

These and other objects will become apparent in the following description of the invention illustrated in the drawing, wherein:

Fig. 1 is a front elevation of a wall mirror and shelf associated therewith according to the invention.

Fig. 2 is an enlarged elevational sectional view, on line 2—2 of Fig. 1, showing the construction of the shelf-carrying brackets and supporting members therefor, and illustrating the manner in which said brackets and supporting members are interconnected.

Fig. 3 is a perspective view in elevation, showing isolated one of the members for supporting the brackets, and

Fig. 4 is a similar view of one of the brackets.

Referring now in details to the drawing, numeral 10 indicates a mirror which is mounted on a base or backing 11, made of any suitable material such as cardboard or wood. The mirror is fastened to the base in a conventional manner, as by means of a plurality of fingers 12 projecting from bars 13 that are arranged at the rear of the base 11 and are provided with slotted ends 14 adapted to receive wall nails or the like. A pair of rigid flat metal members or bars 15 are fastened to the bars 13 by means of screws or the like, as shown at 16, and project downwardly from the lower edge of the mirror, a rectangular slot 17 being provided in the projecting portion of each bar for the purpose that will hereafter become apparent.

A shelf 18, which is preferably made of glass, is mounted on the flat metal brackets 19, each of said brackets comprising a vertical arm 20 and a horizontal shelf-carrying arm 21, the free end whereof is bent upwardly and inwardly to form a lug 22 adapted to receive the longitudinal edge of the shelf and to prevent displacement of this latter relative to the brackets. Of course, the respective length of the bracket arms 20 and 21 is determined in relation to the width of the shelf and the desired spacing of this latter with respect to the lower edge of the mirror.

Referring now in particular to Figs. 2 and 4, it will be observed that the vertical arm 20 of each bracket 19 is provided with an L-shaped member or lug 23, which projects from the rear face of the arm and is preferably formed integral therewith, as by stamping. The projecting lug 23

is slightly shorter and narrower than the slot 17 of the bars 15, so as to be insertable therethrough, and comprises a laterally extending portion 24 and a substantially resilient portion 25, which extends parallel to the rear face of the arm 20 and is spaced therefrom by a distance substantially equal to the thickness of the bars 15.

To assemble the brackets 19 with their supporting bars 15, it is sufficient to insert the lug 23 of each bracket into the slot 17 of the respective bar 15 so as to bring the rear face of the bracket arm 20 into juxtaposition with the bar, with the opposed faces in surface engagement, and subsequently allow the bracket to slide downwardly by gravity, thereby moving the portion 24 of the lug into abutting engagement with the lower edge of the slot 17 and concurrently bringing the offset portion 25 into surface engagement with the rear face of the bar 15, as illustrated in Fig. 2.

Since the aforementioned lug portion 25 is resilient, and is spaced from the bracket arm 20 by a distance substantially equal to the thickness of the bar 15, as aforementioned, there will be frictional contact of the opposite faces of the bar 15 with the lug portion 25 and the rear face of the arm 20; lateral displacement of the brackets relative to the bar is therefore prevented, while the vertical position of the brackets in the assembly is defined by the abutting engagement of the lug portion 25 with the lower edge of the slot 17 and maintained by the weight of the brackets and associated shelf.

The brackets are in this manner readily assembled with their supporting bars and positioned underneath the mirror, while being locked against accidental displacement during the use of the device, it being evident that they can be, however, readily removed whenever desired by merely shifting them upwardly to bring the lugs 23 into registration with the slots 17, whereupon the lugs can be withdrawn from the bars.

It will be apparent from the foregoing that I have provided novel and improved means for supporting a shelf underneath a wall mirror that are free of the shortcomings inherent in the structures heretofore employed, and which are furthermore economical to manufacture due to the elimination of any separate fastening means and the provision of interconnectable members that can be conveniently produced by stamping operations.

It is to be understood that while I have described my invention substantially with reference to a preferred embodiment thereof, changes and modifications may be made in the structure described and illustrated in the drawing without departing from the spirit of the invention or exceeding the scope of the claims.

I claim:

1. In a mirror and shelf mounting structure, in combination with a plurality of bars rigidly connected to the mirror and having each a slot therein, a plurality of removable brackets adapted to carry a shelf, each of said brackets having an arm arranged in juxtaposed relation to one of said downwardly extending bars, and a lug projecting laterally of said arm, said lug having a portion extending through the slot in the bar in abutting engagement with the lower edge of the slot, and a portion extending parallel to said arm of the bracket in surface engagement with the bar, to lock the bracket to the bar, said portions of the lug being maintained in the aforementioned respective positions by the weight of the shelf carried by the bracket.

2. In a mirror and shelf mounting structure, in combination with a pair of bars rigidly connected to the mirror and extending downwardly therefrom, each of said bars having a slot therein, a pair of removable brackets adapted to carry a shelf, each of said brackets having a vertical arm disposed in juxtaposition to one of said downwardly extending bars and a lug formed integral with said arm and projecting laterally thereof, said lug having a portion extending through the slot in the bar in abutting engagement with the lower edge of the slot to connect the bracket to the bar in fixed vertical position relative thereto, and a portion extending parallel to said arm of the bracket in surface engagement with the bar, to prevent lateral displacement of the bracket relative to the bar, said portions of the lug being maintained in the aforementioned respective positions by the weight of the shelf carried by the brackets.

3. In a mirror and shelf mounting structure comprising a plurality of bars rigidly connected to the mirror and having a slot therein, a plurality of shelf-supporting brackets each comprising a vertical arm disposed in juxtaposition to one of said downwardly extending bars and a lug formed integral with said arm and projecting therefrom, said lug having a portion extending through the slot in the bar and maintained in abutting engagement with the lower edge of the slot by the weight of the shelf carried by the brackets, to connect the bracket to the bar in fixed vertical position relative thereto, said lug also embodying a substantially resilient portion extending parallel to said arm of the bracket in frictional engagement with the bar, to prevent lateral displacement of the bracket relative to the bar.

4. In a mirror and shelf mounting structure, in combination with a pair of bars rigidly connected to the mirror and extending downwardly therefrom, each of said bars having a slot therein, a pair of removable brackets adapted to carry a shelf, each of said brackets comprising an arm and a lug formed integral with said arm and projecting laterally thereof, said lug being insertable through the slot of one of the bars and having portions adapted to engage surfaces of the bar, in a downward movement of the bracket, and effective in cooperation with said arm to lock the bracket in fixed predetermined position relative to the bar, said portions being disengageable from said surfaces of the bar in a reverse directional movement of the bracket.

5. A structure for removably mounting a shelf underneath a mirror, comprising bars fixed to said mirror and extending downwardly therefrom, each of said bars being provided with a slot, brackets adapted to carry a shelf, each embodying a vertical arm and a lug projecting from said arm and insertable through the slot of one of said bars, said lug comprising a laterally extending portion and a downwardly extending portion parallel to the arm and spaced therefrom by a distance substantially equal to the thickness of the bar, whereby when the lug is inserted through the slot to bring the arm of the bracket into juxtaposition with the bar and the bracket is shifted downwardly, the lug abuts against the lower edge of the slot and concurrently engages the surface of the bar to lock the bracket in predetermined position underneath the mirror.

6. A structure for removably mounting a shelf underneath a mirror, comprising a pair of bars

fixed to said mirror and extending downwardly therefrom, each of said bars being provided with a slot, a pair of brackets adapted to carry a shelf, each embodying a vertical arm and a lug projecting from said arm and insertable through the slot of one of said bars, said lug comprising a laterally extending portion and a resilient downwardly extending portion parallel to the arm and spaced therefrom by a distance substantially equal to the thickness of the bar, whereby when the lug is inserted through the slot to bring the arm of the bracket into juxtaposition with the bar and the bracket is shifted downwardly, the laterally extending portion of the lug is caused to abut against the lower edge of the slot and the resilient downwardly extending portion thereof is caused to frictionally engage the surface of the bar, to lock the bracket to the bar in predetermined position underneath the mirror, the lug being disengageable from the bar in a reverse directional movement of the bracket.

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