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 [31] **54414-A/68**

[56]

References Cited

UNITED STATES PATENTS

1,596,603 8/1926 Enoch 248/224
 2,575,843 11/1951 Semroin 248/223 UX

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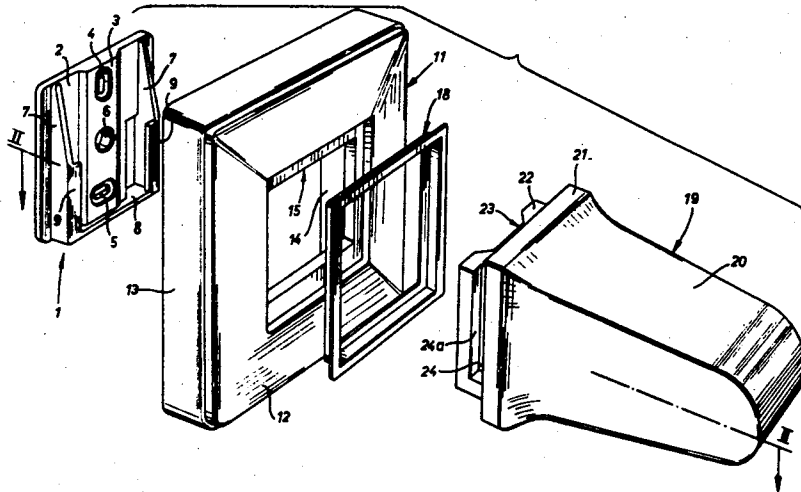
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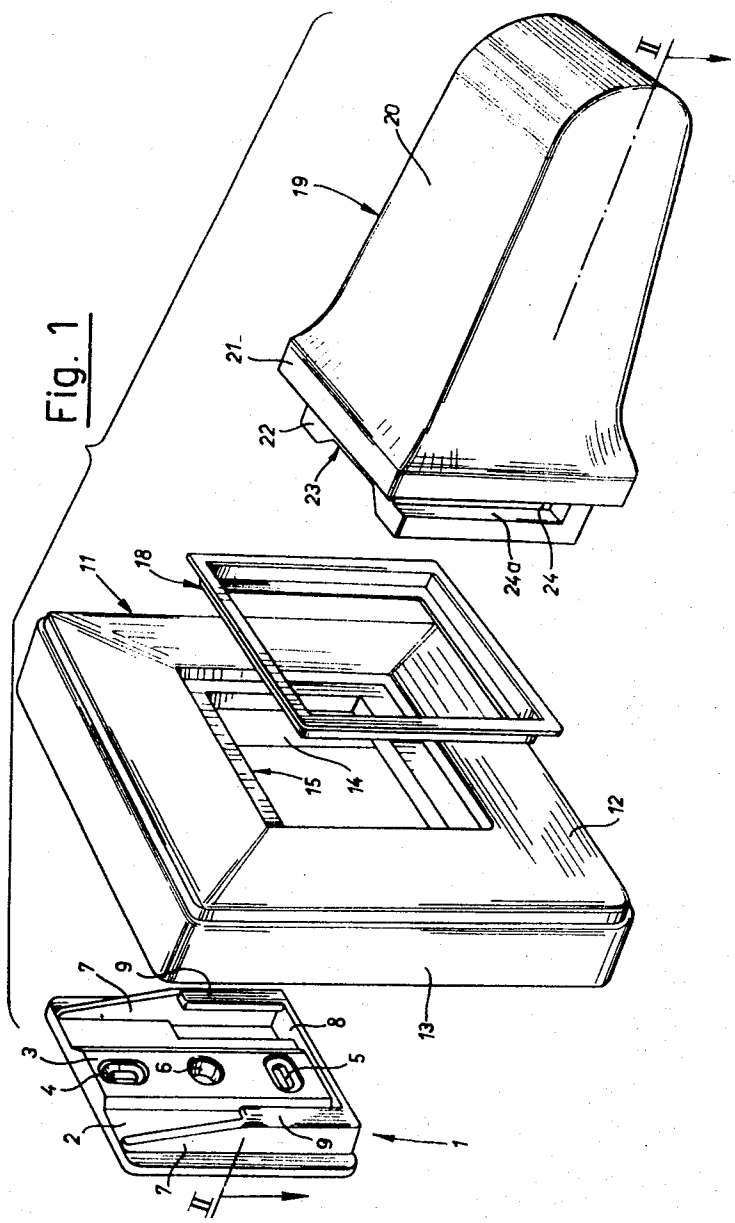
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[54] **WALL BRACKET DEVICES**
1 Claim, 7 Drawing Figs.

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248/73
 [51] Int. Cl. **A47f 5/00**
 [50] Field of Search. **248/73,**
223, 224, 225, 235, 241, 243; 211/90, 88, 105.1

ABSTRACT: A wall bracket device comprises an assembly of three parts; a support plate which can be secured to a supporting surface, for example by screws and which has parallel slide guides normally disposed vertically; a bracket element having a rear part with grooves which interengage with the slide guides on the support plate by vertical sliding movement, and a boxlike frame having a central opening through which the bracket element projects, the frame covering the support plate and concealing from view the fixing means for the latter.





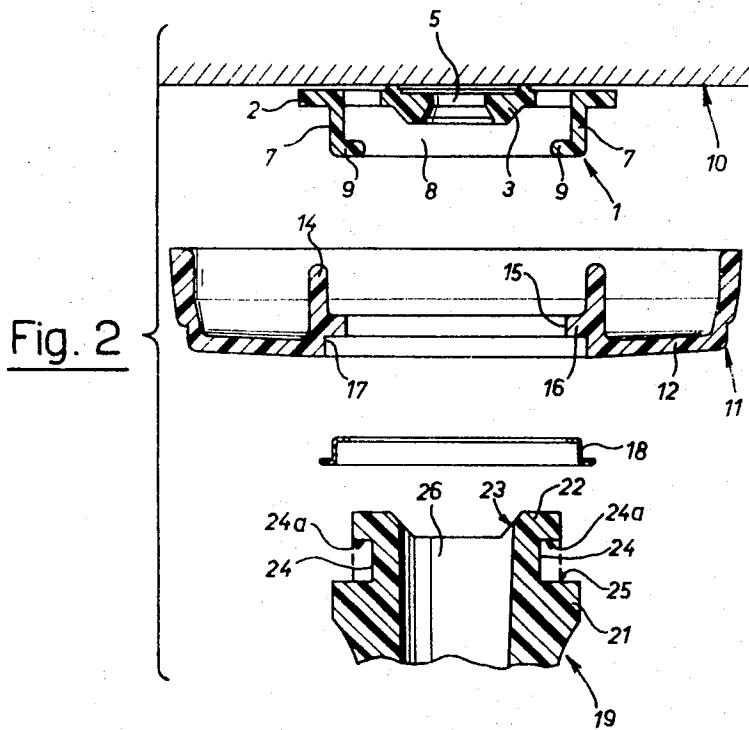
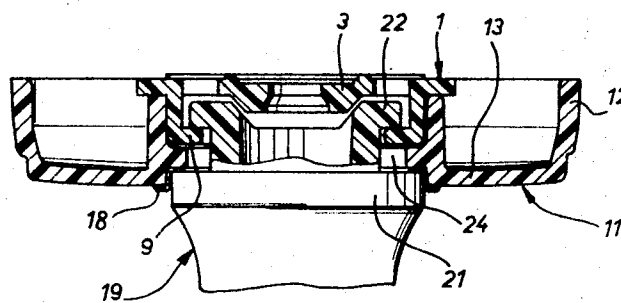


Fig. 5



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Fig. 3

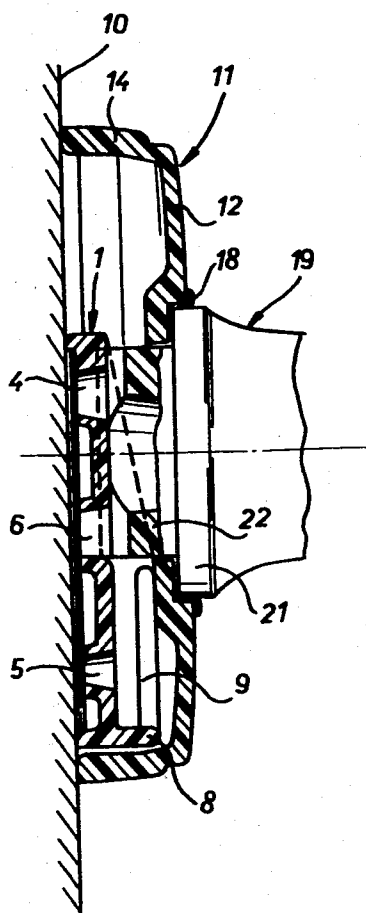
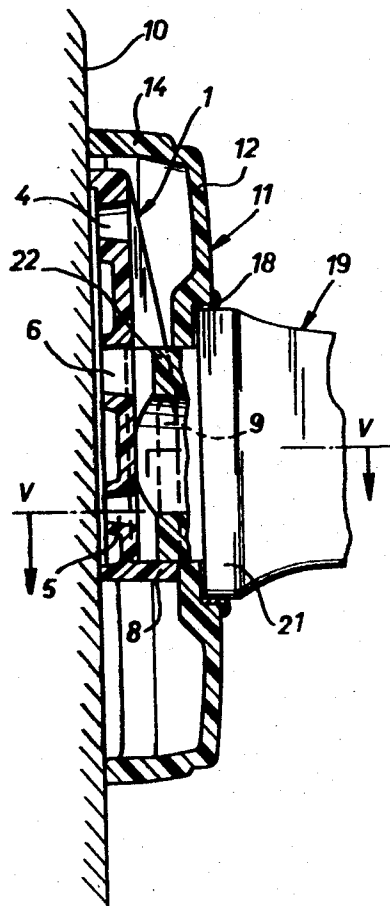
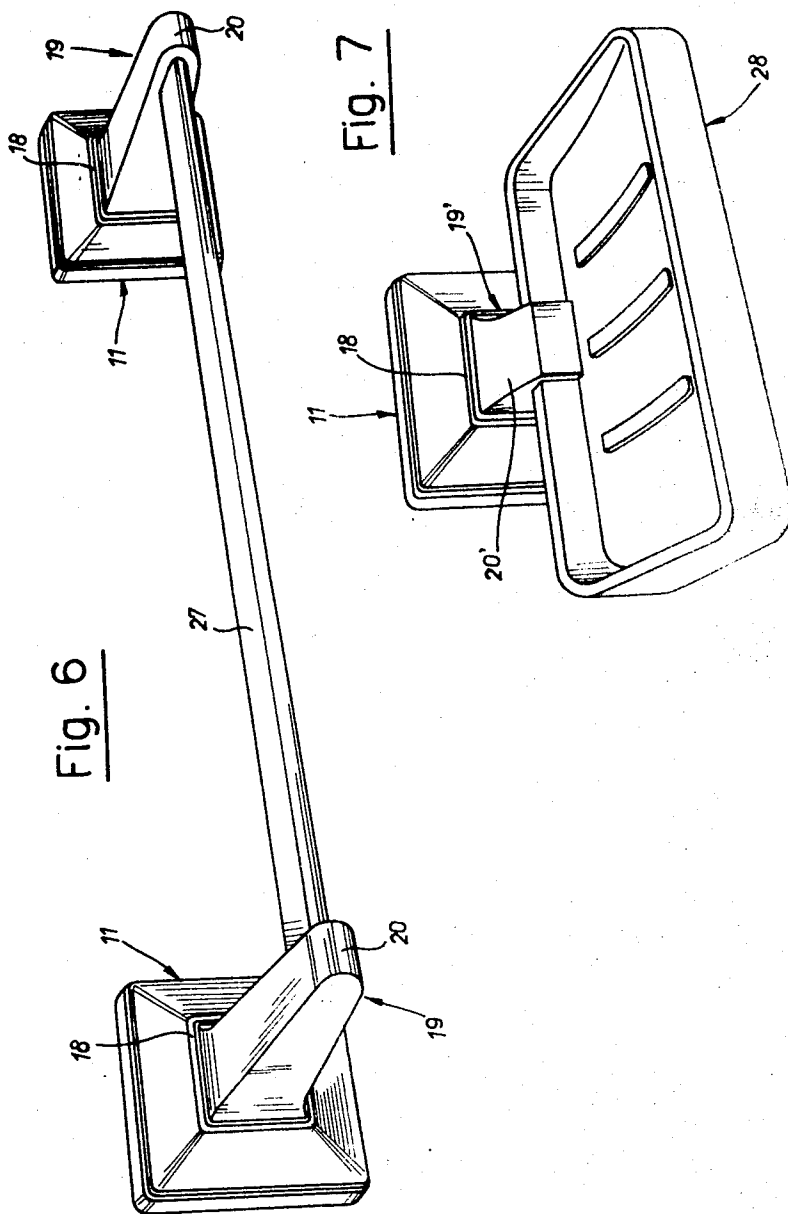


Fig. 4





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WALL BRACKET DEVICES

This invention relates to wall bracket devices, that is, devices for the fixing to walls of brackets for supporting various articles, particularly bathroom accessories.

Wall bracket devices are already known which make use of screw or suction fixing means to secure them to walls. Such fixing means are visible externally of the device. Moreover, in the case of the fixing by screws anchored in a wall by, for example, expansible plugs, the removal of the fixed bracket device is difficult.

An object of the present invention is to avoid these drawbacks by providing a wall bracket device which is of simple, strong and economical construction and which permits both the fixing and the removal of a bracket or other supported article by hand.

A further object of the invention is to provide a device of the above-mentioned type which is such that the fixing means used to secure the device to a wall are hidden from view.

A further object of the invention is to provide a device of the above-mentioned type which can be used for supporting various types of objects, interchangeable as desired among themselves, so as to have a wide variety of uses.

The wall bracket device according to the invention is chiefly characterized in that it comprises a support plate adapted to be secured to a supporting surface and having two parallel slide guides provided with oppositely directed parallel flanges, a boxlike frame adapted to fit over the support plate and having a central opening, and a bracket element having a rear part adapted to fit into said frame opening and provided with parallel grooves on opposite lateral sides for interlocking engagement with said flanges by sliding movement of the bracket element and frame relative to the support plate.

Preferably the bracket element is tightly held against the support plate by the reaction of said rear part against the frame and by the reaction of said flanges against the walls of said grooves.

Further characteristic features and advantages of the invention will be apparent from the detailed description which follows, given by way of nonlimiting example, with reference to the accompanying drawings, in which:

FIG. 1 is a perspective exploded view of a wall bracket device according to one embodiment of the invention;

FIG. 2 is a longitudinal exploded section, taken in a horizontal plane indicated by line II-II in FIG. 1;

FIG. 3 is a longitudinal section, taken in a median vertical plane, showing the device at an intermediate stage of assembly;

FIG. 4 is a longitudinal section in the same plane as FIG. 3, showing the device in its final assembled state;

FIG. 5 is a transverse section, taken on line V-V in FIG. 4, and

FIGS. 6 and 7 are two perspective views showing two modes of utilization of devices according to the invention.

The wall bracket device according to the invention is adapted to be secured to a supporting surface such as a vertical wall. The bracket device comprises, in combination, three main components which cooperate with one another upon assembly of the device: a support plate 1, a frame 11 and a bracket element 19.

The support plate 1 is moulded in plastics material with a small base plate 2 having a central raised piece 3. Vertically and horizontally elongated slots 4 and 5 respectively, together with a central hole 6, are provided in the raised piece 3 for the reception of fixing screws (not shown) for securing the plate 1 to a vertical wall (not shown) in a known manner. The plate 1 may alternatively be secured to the wall in any other known manner.

Two forwardly projecting parallel slide guides 7, which are disposed vertically upon fixing of the support plate 1 to the wall, are provided on opposite lateral sides of the base plate 2 and are interconnected at their lower ends by an integral

crosspiece 8. The slide guides 7 are provided with oppositely directed parallel flanges 9 at right angles to the respective guides 7 and projecting towards each other. The flanges 9 are provided on the lower parts of the slide guides 7.

The frame 11 has a hollow boxlike structure and is also moulded in plastics material. The frame 11 has a moulded front wall 12 surrounded by a continuous side wall 13, the frame 11 being reinforced internally by vertical ribs 14. The frame 11 has a central opening 15, having in this case a square shape, surrounded by a recess 17 in the front wall 12.

The bracket element 19 is also moulded in plastics material and comprises a front projecting part 20, which can be a shelf or a bracket, as it will be described later, and a rear part 22 projecting from an enlarged moulded base 21 which has the same shape (in this case, square) as the recess 17 in the front wall 12 of the frame 11.

The rear part 22 has a center rebate 23 adapted to fit over the central raised piece 3 of the support plate 1 and two lateral parallel grooves 24 extending over part of the height of the portion 22 and closed at their lower ends. The grooves 24 are delimited by rear walls 24a (FIG. 2) and by a single front wall 25, which constitutes an end surface of the enlarged base 21 of the bracket element 19.

The bracket element 19 is, for the sake of lightness, moulded with an internal cavity 26 (FIG. 2) open at the rear of the element 19.

In the recess 17 which surrounds the opening 15 of the frame 11, a small metallic annular spring element 18 is placed, having essentially a decorative function. The outer edge of the element 18 is slightly springy and assists the snug fitting of different bracket elements in the frame recess 17.

To assemble the wall bracket device, after having first fixed the support plate 1 to a vertical wall 10 (FIG. 2), the rear part 22 of the bracket element 19 is inserted in the opening 15 of the frame 11, the latter being already provided with the small metal spring element 18 in its recess 17. The said rear part 22 is then located between the slide guides 7 of the support plate 1, as shown in FIG. 3. The assembly formed by the frame 11 and the bracket element 19 is then pushed downwardly relative to the support plate 1 to effect interlocking engagement of the flanges 9 in the grooves 24, thereby fitting the various components of the device together with a snug fit (FIGS. 4 and 5).

The downward sliding movement of the bracket element 19 and of the frame 11 is arrested when the lower end of the rear part 22 of the bracket element 19 comes into contact with the crosspiece 8 which interconnects the two slide guides 7 of the support plate 1 at the lower edge of the latter.

In this way the frame 11 and the bracket element 19 remain anchored to the support plate 1, forming a single rigid unit attached to the wall 10.

The mutual rigid interconnection of the various components results from the reaction of the front wall 25 of the rear part 22 of the bracket element 19 against the small metal spring element 18 fitted in the recess 17 of the frame 11, and is also due to the reaction of the opposed flanges 9 of the support plate 1 against the walls of the grooves 24 of the bracket element 19.

The wall bracket device as described above can have various uses, as the bracket element 19 can be used either as a support for objects or can in itself form the object to be supported.

FIG. 6 shows an example of the use of two bracket devices as hereinbefore described as a towel rail. The two bracket elements 19 are spaced apart horizontally and have on their side walls which face each other respective sockets in which opposite ends of a tubular (and in this case, flat) towel supporting rail 27 are inserted before fitting the bracket devices to the wall. Each bracket element 19 is provided with a rounded projecting part 20.

An alternative form of towel support, not illustrated, may comprise a single bracket device according to the invention supporting a substantially circular towel supporting ring inserted in a lateral hole in the bracket element of the device.

Another example of utilization of bracket device according to the invention is illustrated in FIG. 7. In this example the front projecting part 20' of the bracket element 19' is moulded integrally with a tray 28, shown in FIG. 6 as a soap dish for bathroom use.

The bracket elements 19, 19' can be moulded integrally with other accessory elements such as for example, tumbler-holders, clothes-hangers or wall lamp housings: where a wall bracket device of the invention is used as a lamp bracket, the central hole 6 of the support plate 1 allows the passage of electric wires from the supporting wall into the internal cavity 26 of the bracket element.

The bracket device according to the invention is easy to fix, and can moreover easily be disengaged from the support plate 1 by vertical upward-sliding movement of the bracket element 19 and the frame 11. The means of fixing the device to the wall, in the illustrated embodiments the support plate 1 and its fixing screws, are completely hidden from view by the frame 11.

It will be appreciated that constructional details of embodiments of the invention can be widely varied from what has been described and illustrated, without departing from the

scope of this invention as defined in the claims.

What I claim is:

1. A wall bracket device for fixture to a supporting surface, comprising:

- a. a support plate adapted to be secured to a wall;
- b. two parallel slide guides on said support plate;
- c. oppositely directed parallel flanges on said slide guides;
- d. a boxlike frame which fits over the support plate and which has means defining a central opening therein;
- e. a bracket element having a rear part adapted to fit into said frame opening;
- f. means defining parallel grooves on opposite lateral sides of the rear part of said bracket element, said grooves effecting interlocking engagement with said flanges on the support plate upon sliding movement of the bracket element and frame along said slide guides relative to the support plate, and
- g. a metal spring element surrounding the central opening of the frame and having an external resilient portion against which the rear part of the bracket element abuts upon assembly of the device.

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