

[54] SOAP BAR ATTACHMENT DEVICE

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[58] Field of Search294/64; 248/206, 359; 401/88

[56] **References Cited**

UNITED STATES PATENTS

2,194,997	3/1940	Butler.....	248/206
3,288,105	11/1966	Staver.....	401/88

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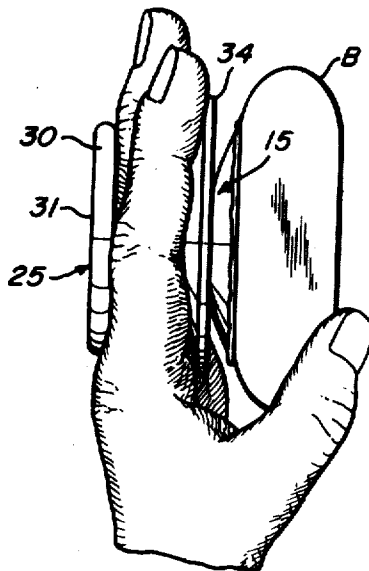
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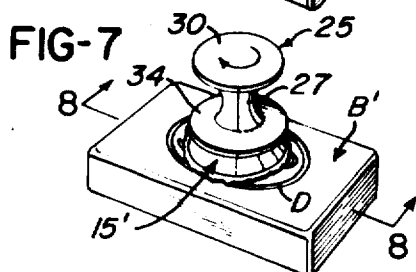
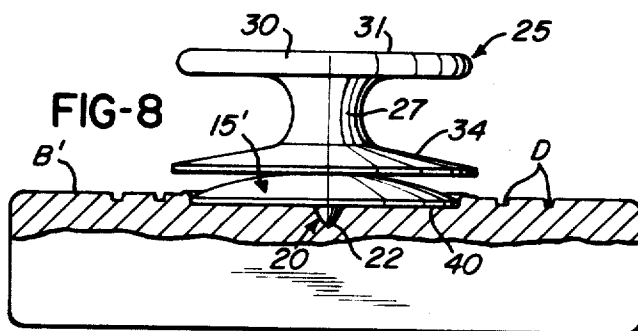
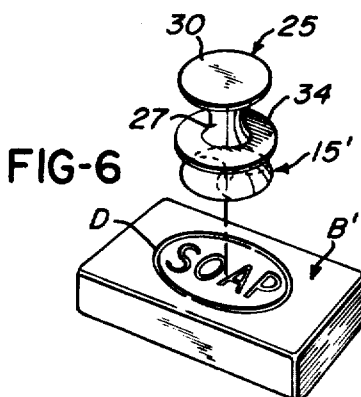
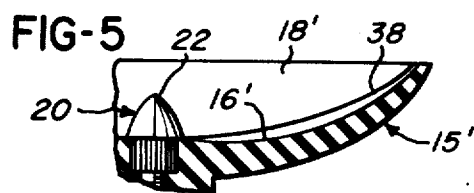
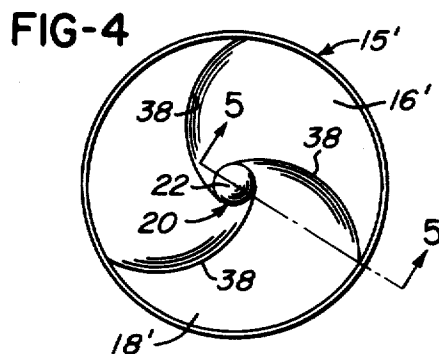
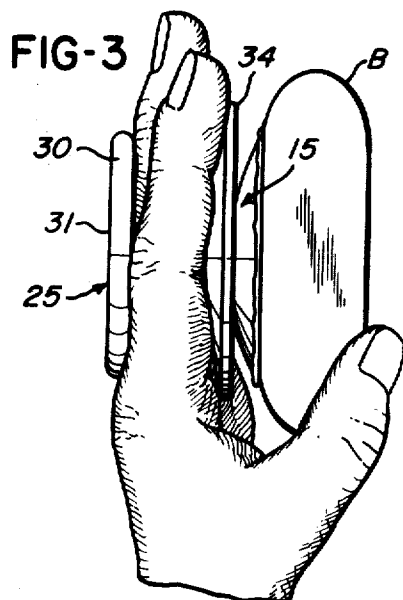
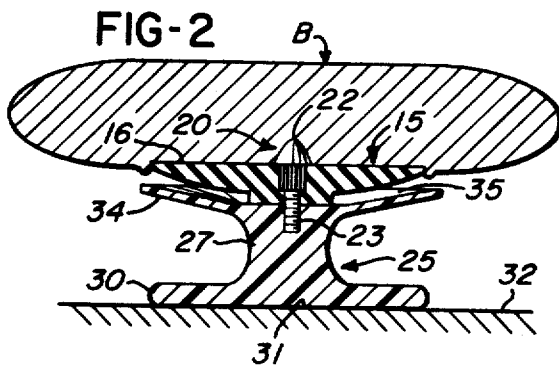
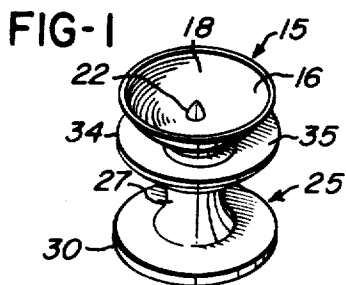
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ABSTRACT

A soap bar is attached to a resilient suction cup having a pointed stud which projects from the face of the cup and penetrates the bar to prevent relative sliding movement. The suction cup may be mounted on a spool-like member having a base portion adapted to rest on a sink-top and connected by a neck portion to a tapering flange portion defining a soap dish. The suction cup may be attached to other elements for support or use thereby. The handle member is adapted to fit between the second and third fingers of a person's hand, and the suction cup may incorporate integral flute-like teeth for shaving the soap bar to form a smooth seat.

10 Claims, 8 Drawing Figures





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SOAP BAR ATTACHMENT DEVICE

BACKGROUND OF THE INVENTION

Various forms of soap bar holders are shown in a number of United States patents, and some of these holders employ a suction cup for attaching the holder to the soap bar. For example, U.S. Pat. No. 2,900,757 discloses a suction cup carried by a block-like shell and which is adapted to be pressed against a soap bar. The holder shown in U.S. Pat. No. 2,194,997 employs two suction cups facing in opposite directions, one for engaging the soap bar and the other for engaging a supporting wall surface. U.S. Pat. No. 2,717,472 shows another form of soap holder which also uses a suction cup for engaging a supporting wall surface.

It has been determined that there are several desirable features which a soap bar holder should provide. For example, the holder should be able to carry the soap bar after it has been reduced to a small piece and should be positively attached to the soap bar so that the bar will not slide or slip laterally off the holder. It is also desirable that the holder may be conveniently and positively gripped with a hand covered with soapy water and also provide for placing the soap bar on a counter-top surface surrounding a sink without having soapy water droplets drip onto the counter-top surface. Another desirable feature is for the soap holder to provide for forming a surface or seat on a soap bar which has either a raised or recessed design or impression on its side surfaces. As is apparent after a complete analysis, each of the soap bar holders disclosed in the above patents is lacking in providing one or more of these desirable features.

SUMMARY OF THE INVENTION

This invention is directed to an improved soap bar holder which is inexpensive and simple in construction and which provides all of the desirable features set forth above. In accordance with one embodiment of the invention, a rigid pilot stud or pin having a pointed tip is embedded within the center portion of a resilient suction cup so that the pointed tip projects into the center of the concave cavity defined by the face of the suction cup. The pointed tip of the stud is effective to penetrate the soap bar when the suction cup is attached by "suction" to the bar, and thereby the stud prevents the soap bar from shifting or sliding laterally relative to the suction cup.

The pilot stud may include a threaded portion which projects from the opposite side of the suction cup and engages a spool-like handle member having a base portion adapted to rest on a sink-top surface. The handle member also includes a slightly conical flange portion defining a concaved dish-like chamber adapted to receive soapy water droplets which run down the soap bar when the holder is placed on the sink-top surface.

In accordance with another embodiment of the invention, the resilient suction cup includes a plurality of flute-like integral spiral teeth which project from the concave face of the suction cup and extend to the outer lip of the suction cup. These teeth are effective to shave a smooth surface on the soap bar in response to rotating the suction cup on the pilot stud when the suction cup is pressed against the soap bar.

Other features and advantages of the invention reside in the construction thereof, manner of use

thereof, and the method of manufacture thereof, as will be apparent from the following description, the accompanying drawing and the appended claims.

BRIEF DESCRIPTION OF THE DRAWING

FIG. 1 is a perspective view of a soap-bar holding device constructed in accordance with the invention.

FIG. 2 is an axial sectional view, drawn on a larger scale than FIG. 1, taken through the device shown in FIG. 1 and showing the device attached to a soap bar.

FIG. 3 is an elevational view, drawn on substantially the same scale as FIG. 2, illustrating the manner by which the device shown in FIGS. 1 and 2 may be manually gripped.

FIG. 4 is an axial or face view, drawn on substantially the same scale as FIGS. 2 and 3, of a soap-bar holding device constructed in accordance with another embodiment of the invention.

FIG. 5 is a fragmentary section drawn on a larger scale than FIG. 4 and substantially on line 5—5 of FIG. 4.

FIG. 6 is a perspective view, drawn on a smaller scale than FIG. 1, illustrating the holding device of FIGS. 4 and 5 in a position for movement to a soap bar for attachment thereto.

FIG. 7 is a perspective view drawn on substantially the same scale as FIG. 6, showing attachment of the holder device to a soap bar.

FIG. 8 is an enlarged section view taken generally on the line 8—8 of FIG. 7, with a portion of the soap bar shown in elevation.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

Referring to FIGS. 1—3, a soap bar B is attached to and carried by a device or holder of this invention which includes a resilient suction cup 15 formed of a rubber-like or elastomeric material. The suction cup 15 has a circular concave surface or face 16 which define a cup-like cavity 18. A pin-like pilot stud 20 extends through the hub or center portion of the suction cup 15 and includes a generally conical pointed tip portion 22 which projects from the surface 16 onto the center of the cavity 18. The stud 20 may be of any suitable material such as metal, wood, plastics, or the like. The opposite end portion 23 of the stud 20 is shown threaded into a spool-like member 25 which has a circular cross section and is preferably molded from a rigid thermoplastic material.

The handle member 25 includes a neck portion 27 which receives the threaded end portion 23 of the stud 20 and which is formed as an integral part of a circular disk-like base portion 30 having a flat-bottom surface 31, adapted to rest on a counter-top or sink-top surface 32. The neck portion 27 integrally connects the base portion 30 with a slightly conical circular flange portion 34 which projects outwardly adjacent the back of the suction cup 15 and defines a dish-like chamber or cavity 35.

As illustrated in FIG. 3, the diameter of the neck portion 27 of the handle member 25, and the spacing between the base portion 30 and the flange portion 34 are such that the handle member 25 easily fits between the second and third fingers of a user's hand so that the handle member 25 may be firmly and positively

gripped while the soap bar B is being used to apply soap to a wash cloth or to a part of a user's body. When the soap bar B and the attached holding device are placed on a sink-top surface 32, as illustrated in FIG. 2, soapy water droplets run inwardly along the bottom surface of the soap bar and drop into the dish-like chamber 35 defined by the flange portion 34 of the handle member 25. As a result, the water droplets are prevented from dripping onto the sink-top surface 32.

In accordance with another embodiment of the invention, a resilient suction cup 15', shown in FIGS. 4, 5, 6, 7 and 8, includes a series of three uniformly spaced flute-like spiral teeth 38 which are molded as an integral part of the suction cup and project from the surface 16' inwardly into the cavity 18'. The teeth 38 provide the surface 16' with a scallop-like configuration and spiral outwardly from the retaining stud 20 to the outer peripheral lip of the suction cup 15' as shown in FIG. 5. The suction cup 15' is secured to a handle member 25 by the retaining stud 20 in a manner similar to that described above with regard to the embodiment shown in FIGS. 1-3.

Referring to FIGS. 6 and 7, a soap-bar holding device incorporating a suction cup 15' is ideally suited for attachment to a soap bar B' which has on the surface thereof either a raised or a depressed impression or design region D in the form of a figure or letter characters. To attach the suction cup 15' to the soap bar B' at the design region D, the suction cup 15' is pressed against the face of the soap bar at the design region D, and then the suction cup 15' is twisted or rotated at least 180°. This rotation of the suction cup 15' causes the teeth 38 to shave at least a portion of the surface of the design region D from the soap bar B' and to form a smooth flat surface or seat 40 on the soap bar so that a positive suction seal is obtained between the suction cup and the soap bar. The tip portion 22 of the stud 20 extending through the center of the suction cup 15' serves as a pilot for rotating the suction cup 15'.

From the drawing and the above description, it is apparent that a soap-bar holding device constructed in accordance with the invention, provides the desirable features mentioned above. For example, the pointed tip portion 22 of the pilot stud 20 penetrates the surface of the soap bar B and cooperates with the suction cup 15 or 15' to assure that the suction cup remains positively attached to the soap bar and that the soap does not slide laterally relative to the suction cup. The pointed tip portion 22 also provides a centering pilot for rotating the suction cup as the suction cup is pressed against the soap bar so that a smooth flat seat is formed on the soap bar.

The handle member 25 provides additional important features. That is, the spool-like configuration and the size of the handle member provides for conveniently and positively gripping the handle member even when the user's hand is covered with soapy water and thus assure that the soap bar and handle member do not slip from the user's hand. The shape and configuration of the handle member 25 also enable the soap bar and holding device to be conveniently and quickly placed on a sink-top surface 32. For example, by simply turning the hand gripping the handle member 25 so that the palm of the hand faces upwardly, the base portion 30 of the handle member may be placed

on the sink-top surface 32 and quickly released by separating the fingers gripping the neck portion 27 of the handle member 25.

As also mentioned above, when a soap bar and a holding device are placed on a sink-top surface, the flange portion 34 of the handle member 25 functions as a soap dish to collect soapy water droplets and thereby prevent the droplets from dripping on the sink-top surface. Another advantage of this invention is provided by the embodiment shown in FIGS. 4-8. The integral teeth 38 of the suction cup 15' are effective to shave at least a portion of an impression from a side of the soap bar so that a positive airtight seal is formed between the suction cup 15' and the soap bar.

While the forms of soap-bar holding devices herein described constitute preferred embodiments of the invention, it is to be understood that the invention is not limited to these precise forms or details of devices, and that changes may be made therein without departing from the scope of the invention which is defined in the appended claims.

The invention having thus been described, the following is claimed:

1. A device for attachment to a soap bar for support thereof comprising a resilient suction cup having a concave face defining a cavity, retaining means secured to the suction cup and projecting from said face into said cavity and adapted to penetrate a soap bar when said suction cup is in firm engagement with the surface of the soap bar, said retaining means being effective to prevent lateral sliding movement of the soap bar relative to said suction cup when the suction cup is attached by suction to the soap bar.

2. The device of claim 1 which includes support means attached to the suction cup.

3. A device as defined in claim 1 in which said retaining means comprises a rigid pin-like pilot stud located substantially within the center of said cavity.

4. A device as defined in claim 3 in which said stud extends through said suction cup and includes a threaded portion which engages said support means.

5. A device as defined in claim 2 in which said support means comprises a handle member including a base portion having a surface adapted to rest on a horizontal sink top, a neck portion projecting from said base portion and secured to said suction cup, said neck portion having a length and width of sufficient size to fit between the second and third fingers of a user's hand to provide for positively gripping the handle member to facilitate carrying the soap bar.

6. A device as defined in claim 5 in which said handle member further includes a flange portion projecting outwardly from said neck portion and spaced from said base portion to define a handle member having a generally spool-like configuration.

7. A device as defined in claim 6 in which said flange portion defines a dish-like recess for collecting soapy water droplets from the soap bar to prevent movement of the droplets to a sink top upon which the base portion rests.

8. A device as defined in claim 1 in which said suction cup includes at least one integral tooth projecting from said concave face into said cavity for shaving a seat on the soap bar in response to rotation of the suction cup while in pressure engagement with the bar.

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9. A device for supporting and carrying a soap bar comprising a resilient suction cup having a concave face defining a cavity, retaining means secured to the suction cup and projecting from said concave face into said cavity and adapted to penetrate the soap bar when said suction cup is pressed against the soap bar, a handle member including a base portion adapted to rest on a horizontal surface, a neck portion projecting from said base portion, a flange portion connected to the neck portion and spaced from said base portion to define a handle member having a generally spool-like configuration, said neck portion having a length and width of sufficient size for fitting between the second and third fingers of a user's hand to provide for positively gripping the handle member, and means for securing said handle member to said suction cup.

10. A device for supporting and carrying a soap bar

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comprising a resilient suction cup having a concave face defining a cavity, said suction cup including at least one integral tooth projecting from said concave face into said cavity for shaving a seat on said soap bar in response to rotation of the suction cup while in pressure engagement with the soap bar, a handle member including a base portion adapted to rest on a horizontal surface, a neck portion projecting from said base portion, a flange portion connected to the neck portion and spaced from said base portion to define a handle member having a generally spoollike configuration, said neck portion having a length and width of sufficient size for fitting between the second and third fingers of a user's hand to provide for positively gripping the handle member, and means for securing said handle member to said suction cup.

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