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VACUUM CUP HOLDING DEVICE

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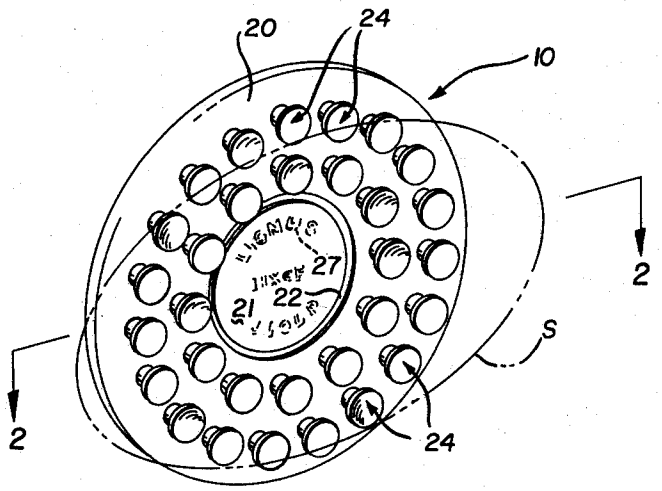


FIG. 1

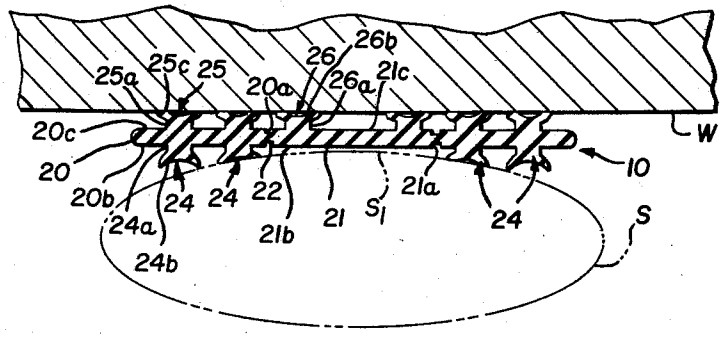


FIG. 2

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VACUUM CUP HOLDING DEVICE

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This invention relates to a holding device for use in supporting soap or like articles with respect to a surface area.

In applicant's prior United States Patent 2,466,502, issued April 5, 1949, there was disclosed a vacuum cup holding device that was shown as having particular utility with respect to the supporting of soap or like articles with respect to a surface area.

While the product of the above referred to United States patent has been successfully marketed over the past number of years, it has been found that the same is, nonetheless, possessed of certain disadvantages as follows.

First, because of the fact that many cakes of soap are oval in cross sectional contour, it has been found that the device of United States Patent 2,466,502 possesses only limited holding power with respect to such contoured cakes of soap in view of the fact that the curvature thereof precludes engagement with all but a few of the vacuum cups. Thus, only the central cups will adhere to the soap so that the same is not, in many instances, sufficiently supported.

Additionally, it has been found that when the pliable sheet that comprises the base of the holding device is applied against a concave surface as, for example, in use on a wash basin, that the holding power is again decreased because of the fact that contact is again made between only a few cups and the soap.

As a third and salient disadvantage, it has been found that the marketing of the item of United States Patent 2,466,502 has been somewhat restricted in view of the fact that there is no space provided thereon for advertising imprints to be made. In this regard, items of this type have been found to have a vast appeal to concerns who give the same away as builders of good will to their customers who can then be repetitively exposed to the sales message provided thereon.

It has been discovered that the aforementioned disadvantages can be obviated by providing one face of the holding device with a localized central surface area that is devoid of suction cups. The advantage obtained by such structure is that the largest cross-sectional portion of the oval shaped soap, for example, can be received in this voided area so that a greater number of cups can grip the soap adjacent the edges thereof and thus provide stronger holding power to support the same with respect to a given surface. It has also been discovered that use of this localized region facilitates use of the device on a concave surface by virtue of the fact that the localized voided area permits greater conformity to the curvature of such surfaces and again provides a greater number of cups that can actually engage the soap surface to more efficiently suspend the same with respect to the surface.

In addition to the aformentioned advantages, it has been discovered that use of the localized voided area above described also provides an ideal area in which an advertising message can be imprinted. This enhances the marketability of the holder by making the same available as a premium item in the advertising field.

It has been further discovered that the above described advantages can be further enhanced if the localized area above described is secured to the suction cup area by use of a thin web-like structure that serves to adjustably support the two surface areas in question in coplanar relationship to each other.

Production of an improved vacuum cup holding device having the above characteristics and advantages accordingly becomes the principal object of this invention, with other objects becoming more apparent upon a reading of the following brief specification, considered and interpreted in the light of the accompanying drawings.

Of the drawings:

FIGURE 1 is a perspective view of the improved soap holding device and showing, in phantom lines, a bar of soap being suspended thereon.

FIGURE 2 is a section taken on the lines 2—2 of FIGURE 1.

Referring now to the drawings and in particular to FIGURE 1, the improved soap holding device, generally designated by the numeral **10**, is shown as having a flat sheet-like configuration that conforms somewhat to the planar outline shape of a bar so as to effectuate support of a bar of soap S with respect to a wall surface W when interposed between the two as shown in the drawings.

Referring now to FIGURE 2 for a detailed consideration of the soap holding device **10**, it will be seen that the same includes concentrically arranged sheet members **20** and **21** that are, in the preferred form of the invention, interconnected into a unitary body through the medium of an integral resilient member of preferably thin cross-section, **22**, with the preferred embodiment of the invention illustrating sheet member **21** as being of circular configuration so as to be encircled concentrically by the sheet member **20** and with web member **22** interconnecting the outer peripheral edge **21***a* of sheet **21** to the inner peripheral edge **20***a* of the sheet **20** so as to form a one-piece soap holder **10**. The sheet **20** is shown in the drawings as further having opposed parallel faces **20***b* and **20***c*, while similar opposed parallel faces **21***b* and **21***c* are provided on the sheet portion **21** as shown best in FIGURE 2. As previously indicated the surfaces **20***c* and **21***c* are preferably substantially coplanar as are the surfaces **20***b* and **21***b*, with such coplanar relationship being achieved in part by use of the web **22**.

Carried by and projecting outwardly from the face **20***b* are a series of vacuum cups **24**, **24** that are of identical configuration, each of which includes shank portions **24***a* and cup portions **24***b* and with the preferred embodiment of the invention illustrating the cups **24**, **24** as being arranged in two concentric circular courses at a point radially outwardly from the inner peripheral edge **20***a*. In like manner the surface **20***c* is likewise provided with a plurality of vacuum cups **25**, **25** that project from the face **20***c* in opposed relationship to the cups **24**. Again the cups **25** have shanks **25***a* and cup portions **25***c* that adhere to the wall surface W as shown in FIGURE 2 and also these cups are preferably arranged in two concentric circular courses that are disposed radially outwardly from the inner peripheral edge **20***a*. If desired, the cups **24** and **25** may be disposed immediately behind each other as shown in the drawings although it is to be understood that other spacing arrangements could be employed if desired.

In addition to the aforementioned series of cups **24**, **24** and **25**, **25** the surface **21***c* is shown as integrally sup-

porting a further series of cups 26, 26 that are of the same type and form as the previously described cups 24, 24 and 25, 25. Accordingly, cups 26, 26 include shank portions 26*a* and cup portions 26*b*, with the cup portions 26*b* preferably being in coplanar alignment with the cup portions 25*b* so that a continuously coplanar series of cups 25, 25 and 26, 26 is provided for adherence to the surface W.

Again and although not shown in FIGURE 1, the cups 26 are arranged in the preferred form of the invention in a concentric smaller diameter circular course with respect to the cups 24 and 25. It should be noted that the cups 24, 24; 25, 25; and 26, 26 are preferably of the type disclosed in applicant's prior United States Patent 2,466,502.

Additionally, and in the preferred form of the invention, the surface 21*b* is shown devoid of vacuum cups and this localized central surface area 21*b* may accordingly be provided with indicia 27 thereon as shown in FIGURE 1 in dotted lines.

In use or operation of the improved vacuum cup holding device, it is merely necessary that the device be placed in the user's hand and applied flat against the surface W so that the cups 25, 25 and 26, 26 cause adherence of the holding device 10 with respect to the surface W. At this time it is merely necessary that the soap be touched against the cups 24, 24 at which time the same will be firmly adhered with respect to both the surface W and the holding device 10.

It will be seen in FIGURE 2 that the maximum thickness region S_1 of the soap is received in adjacency with localized central surface area 21*b* and is thus disposed closer to surface 29*b* than are the projecting ends of the suction cups 24, 24. It will be seen that in this fashion the same can be gripped by the entire inner circle of cups 24, 24, and in the FIGURE 1 version this will mean that approximately 12 cups are in engagement with the soap.

By way of contrast and for the purpose of illustrating the improved features of the invention, in production models, approximately six cups 26, 26 are provided in each holder 10 and thus, if the position of the holder 10 was reversed on the wall and the soap held merely by contact with the cups 26, 26, it will be seen that only half of the holding power would be present.

It is believed apparent that the advertising provided on the localized central surface area 21*b* will be constantly and repetitively messaged to the user during each time that soap is either applied or removed with respect to the holding device 10.

In the preferred form of the invention the entire holding device 10 is molded from a single charge of pure gum rubber, although it is to be understood that other pliable materials, including plastics of the polyvinyl chloride and other types could be employed if desired. Similarly, while a suspending web has been illustrated for the purpose of illustrating the invention, it is to be understood that no such web is, in fact, mandatory and that the same could, if desired, be eliminated. Also, the planar configuration is not intended to be limited to the circular form illustrated herein, with it being apparent that rectangular, square or other planar configurations could be employed.

It will be seen from the foregoing how there has been provided a new and improved type of vacuum cup holding device that is characterized by the fact that the same has the dual advantage of increased holding power and added salability due to the presence of a localized surface area that is devoid of vacuum cup holding means.

It will further be seen how the use of a web portion of the type described permits the surface to be efficiently shifted out of coplanar alignment for printing purpose, with the thin web portion having appropriate resiliency to permit such shifting and yet being operable to return the printed surface to its normal position upon release of deforming pressure.

While a full and complete disclosure of the invention has been set forth in accordance with the dictates of the patent statutes, it is to be understood that the invention herein described is not intended to be limited to the specific form shown in the drawings and described in the specification.

Accordingly, modifications of the invention may be resorted to without departing from the spirit hereof or the scope of the appended claims.

What is claimed is:

1. A holder for soap and the like, comprising: a first pliable sheet having opposed faces and a peripheral edge; a second pliable sheet having opposed faces and having an opening therein that defines an inner peripheral edge; a resilient web interconnecting at least a portion of the outer peripheral edge of said first sheet with at least a portion of the inner peripheral edge of said second sheet, whereby said sheets are disposed in substantially coplanar relationship with said second sheet encircling at least a substantial portion of said first sheet; said web and said first and second pliable sheets being of contiguous one piece construction with said web having a lesser thickness dimension than said first and second sheets, first and second series of flared vacuum cups carried by and facing outwardly in opposed direction from said opposed faces of said second sheet; and a third series of flared vacuum cups carried by and facing outwardly from one said surface of said first sheet.

2. A holder for soap and the like, comprising: a first pliable sheet having opposed faces and a peripheral edge; a second pliable sheet having opposed faces and having an opening therein that defines an inner peripheral edge; a resilient web interconnecting at least a portion of the outer peripheral edge of said first sheet with at least a portion of the inner peripheral edge of said second sheet, whereby said sheets are disposed in substantially coplanar relationship with said second sheet encircling at least a substantial portion of said first sheet; said web and said first and second pliable sheets being of contiguous one piece construction with said web having a lesser thickness dimension than said first and second sheets, first and second series of flared vacuum cups carried by and facing outwardly in opposed direction from said opposed faces of said second sheet; and a third series of flared vacuum cups carried by and facing outwardly from one said surface of said first sheet; the projecting ends of said third series of cups being coplanar with the projecting edges of said first series of cups.

3. A device for holding soap and the like, comprising: a flat resilient sheet having an outer edge and first and second opposed faces; a localized central surface area defined by said first face; a first series of vacuum cups carried by and projecting from said first face in the surface area thereof that is disposed between said outer edge and said localized central surface area whereby said localized central surface area is devoid of vacuum cups; and a second series of vacuum cups carried by and projecting from said second face in opposed relationship to said first series of vacuum cups; at least some of said second series of cups being disposed in opposed relationship to said localized said central surface area, whereby the same is supported against distortion during the period said second series of cups are adherent to a said surface area.

4. The device of claim 3 further characterized by the fact that said localized central surface area is of generally circular configuration.

5. A holder for soap and the like, comprising: a first pliable sheet having opposed faces and a peripheral edge; a second pliable sheet having opposed faces and having an opening therein that defines an inner peripheral edge; a resilient web interconnecting at least a portion of the outer peripheral edge of said first sheet with at least a

portion of the inner peripheral edge of said second sheet, whereby said sheets are disposed in substantially coplanar relationship with said second sheet encircling at least a substantial portion of said first sheet; said web and said first and second pliable sheets being of contiguous one piece construction with said web having a greater resiliency than said sheets, whereby said sheets may be tensionally deformed out of coplanar relationship with said web urging return of said sheets to coplanar relationship upon release of said deforming pressure; first and second series of flared vacuum cups carried by and facing outwardly in opposite directions from said opposed faces of at least one said sheet.

References Cited in the file of this patent

UNITED STATES PATENTS

2,194,997	Butler	Mar. 26, 1940
2,227,541	Groff	Jan. 7, 1941
2,466,502	Stiller	Apr. 5, 1959
2,954,635	Stotter	Oct. 4, 1960

FOREIGN PATENTS

559,141	Great Britain	Feb. 4, 1944