

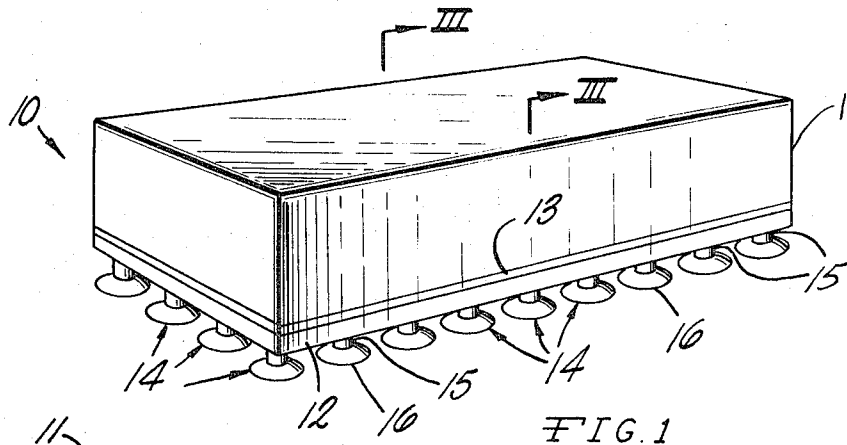
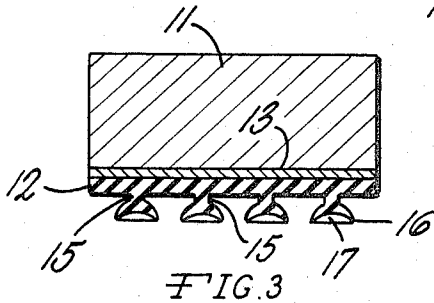
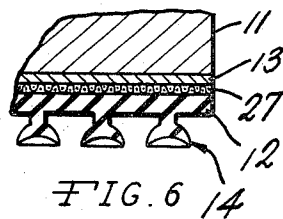
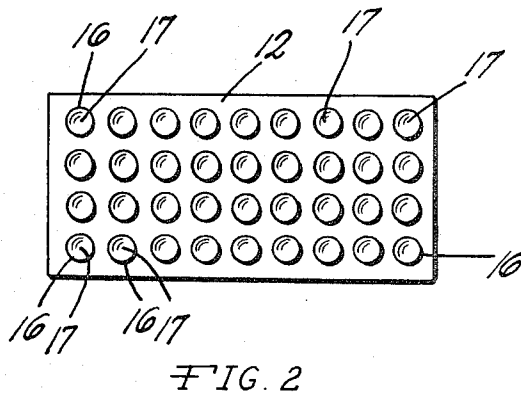
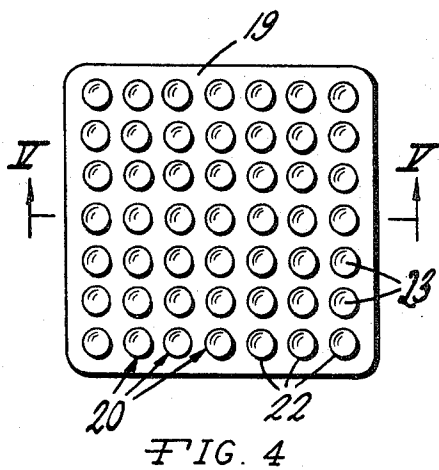
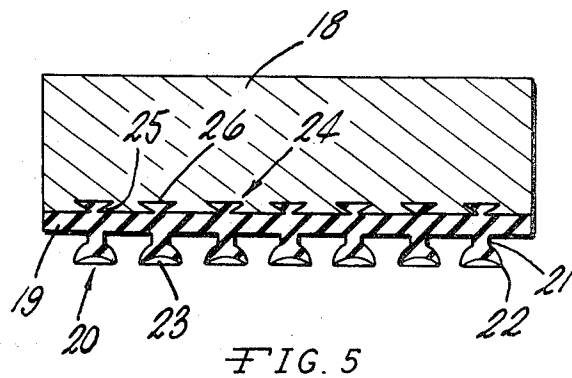
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SELF-ANCHORABLE COMPOSITE ITEM AND METHOD OF MAKING SAME

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SELF-ANCHORABLE COMPOSITE ITEM AND METHOD OF MAKING SAME

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9 Claims

ABSTRACT OF THE DISCLOSURE

An article of manufacture and method of making same comprising an integral combination of an article of use commonly referred to as a scrubbing material such as a bar of soap, a scouring pad, a brush, a sponge, et cetera, with a resilient sheet-form member substantially permanently affixed at one of its surfaces to the article of use, and having at its other surface a plurality of suction cups integrally molded therewith so as to be adapted to readily engage a smooth nonporous surface and to support the article of manufacture with respect to said surface.

BACKGROUND OF THE INVENTION

The present invention deals broadly with useful articles commonly referred to as scrubbing materials such as bars of soap, sponges, brushes, scouring pads, et cetera, and in its more specific phases with such articles which have been modified to form a composite article or article of manufacture so that they may be readily attached to a smooth nonporous surface, such as a wall, to which the articles will remain attached for a reasonable period of time, normally until they are to be removed by grasping and pulling the article away from the surface.

When utilizing such modified construction useful scrubbing articles as bars or cakes of soap, or sponges, or brushes in the bathroom or in the shower, it is frequently necessary to relinquish the article for a short period of time when it is desired to change from one operation to another, as for example from soaping to sponging or to rinsing or wiping. Modern bathrooms and showers do have permanent receptacles provided, generally near the water faucets. However, it is sometimes inconvenient to utilize the permanently positioned receptacle, particularly in a shower room where it is difficult to see because of poor lighting conditions, because of the heavy spray of water, or because soap has got into the person's eyes. Under such conditions it would be highly desirable to have a secondary means for temporarily affixing a modified bar of soap, sponge, or other article at a point other than that at which the permanent receptacle is mounted. Auxiliary receptacles have been disclosed in the art which may be mounted anywhere on a smooth wall, and the soap then placed in the temporary receptacle which commonly has a solid bottom holding water therein which softens the soap. However, it is not always easy to find a temporary receptacle even when mounted in a more convenient place.

A cake of soap placed in the ordinary soap receptacle or even on a ledge or flat surface commonly rests in a pool or body of water and is softened at least on that side so that it washes away very rapidly under normal use conditions, a thing which is uneconomical and wasteful of the soap. An ordinary cake of soap is also unsatisfactory for massaging the skin, as a beauty aid, or scrubbing to clean heavily soiled hands. It was a recognition of these problems and difficulties which led to the conception and development of the present invention.

SUMMARY OF THE INVENTION

Accordingly, it is an object of the present invention to provide a useful article of manufacture utilizing an article of use having attached thereto as an integral part thereof means for mounting the article of use on a smooth nonporous surface where it will be retained until the user grasps it and removes the article of manufacture from the surface.

It is another object to provide a composite article, of the type described, which may be mounted on a surface such as a wall, ledge or flat surface, with substantially all of its free faces or surfaces exposed to the air and away from a container such as a soap dish or even a ledge or other flat surface which might retain sufficient water under the article or in the container to soak the article resting in it. This permits the water to drip from the so mounted composite article so that it will be dried by exposure to air.

It is a still further object to provide a useful composite article of the type described which can be easily manufactured from readily available materials, and which can be produced at a reasonable price.

It is still a further object to provide a method for manufacturing useful combinations of the type described. Still further objects and advantages of the invention will appear as the description proceeds.

BRIEF DESCRIPTION OF DRAWING

To the accomplishment of the foregoing and related ends, the invention, then consists of the useful composite article herein fully described and particularly pointed out in the claims, the annexed drawing and the following description setting forth in detail certain illustrative embodiments of the invention, such disclosed embodiments illustrating, however, but several of the various ways in which the principle of the invention may be used.

In the annexed drawing:

FIG. 1 is a perspective view of one embodiment of the present invention.

FIG. 2 is a bottom plan view of the article shown in FIG. 1.

FIG. 3 is a cross-sectional view taken at the line III—III of FIG. 1, looking in the direction of the arrows.

FIG. 4 is a bottom plan view of a modified embodiment of the useful composite article of the invention.

FIG. 5 is a cross-sectional view as taken at the line V—V of FIG. 4, looking in the direction of the arrows; and

FIG. 6 is an enlarged fragmentary section view of a modified form of the present invention.

DESCRIPTION OF THE SPECIFIC EMBODIMENT

Referring more particularly to FIGS. 1, 2 and 3, a useful composite article or so-called "article of manufacture" according to the invention is shown and generally designated by the numeral 10. The composite article may include a base article such as a bar of soap as shown, a sponge, a brush, or any of a number of other useful articles. The particular composite article diagrammatically shown in the drawing comprises a cake of soap 11 having a holding means in the form of a sheet-form member 12 permanently affixed thereto such as by an adhesive means 13. The adhesive may be any of a large number of materials which are not soluble in water, or affected at the temperatures normally attained by hot water use for hand and face washing, and which, further, are not reactive with the base article utilized, such as a cake of soap or the sheet-form member. Adhesive materials such as paraffin have been experimentally found to be very useful for anchoring a holding means

to a cake of soap. Additionally, various cements, including plastic cements may be used in like manner. The sheet-form member 12 may be composed of rubber, artificial rubber such as GRN, acrylonitrile, polyurethane, polyvinylchloride, and other suitable rubber-like and plastic materials. Integrally molded with the sheet-form member 12 are a plurality of suction cups 14 preferably having a neck 15, FIG. 3, by which they are attached to the sheet-form member 12, said suction cups having a flared portion 16, with a concave depression or suction member 17 in the face of same. By using suction cups 14 with necks 15, this gives considerable flexibility in anchoring the composite article to a holding surface and at the same time facilitates use of the composite article for massaging and/or scrubbing purposes.

The manufacturing of the unitary composite article of the present invention may be carried out in various ways wherein, for example, a large slab of soap, may be prepared and a large sheet-form member having suction cups on its outer surface may have its substantially flat other surface affixed to the surface of the slab of soap by adhesive means such as paraffin. Subsequently this slab may be cut into small cakes or bars of the desired size and contours, and milled or otherwise shaped if desired. Alternatively, the bar of soap may be initially molded to the desired final shape with at least one relatively flat surface, and the individual sheet-form members of appropriate size then affixed to the relatively flat surface of the individual soap bars. Additionally, it may be desirable to roughen the surface of the soap as by means of grooves, ribs, protrusions, et cetera, prior to the adhesive step, in order to make the adhesive joint stronger. As a further expedient a sheet of mesh fabric 27, FIG. 6, may be joined to the surface of the sheet-form member as by molding, vulcanizing, or cementing to provide a stronger and more retentive adhesive joint with the cake of soap. Preferably the surface of the article, such as a bar of soap, to which the sheet-form member is affixed should be flat so that the suction cups will lie in a single plane. However, a curved surface may be used if the sheet-form layer is properly molded to compensate for the curvature of the surface of the article. Alternatively, if a large number of small suction cups are utilized, a sufficient number will still engage the flat surface for attachment even through the article surface, and therefore the anchored sheet-form member, may be curved.

FIGS. 4 and 5 illustrate a modified embodiment of the invention shown in FIGS. 1-3. As shown, the invention comprises a cake or bar of soap 18, and a sheet-form member 19 having suction cups 20 provided on the outer surface thereof. The suction cups are similar to those of FIGS. 1-3, and preferably comprise necks 21, flared portions 22 and concave suction cup depressions 23. In this embodiment the sheet-form member 19 is attached to the cake of soap 18, not by adhesive means, but by mechanical means which in the embodiment shown comprises a plurality of protuberances 24 integrally molded with the sheet-form member 19, with each protuberance 24 preferably comprising a constricted portion or neck 25 and a flared portion 26. These protuberances 24 which serve to affix the sheet-form member 19 securely to the bar of soap 18, may be in any of a variety of forms such as ribs, wedges, nubs, inverted truncated cones, or even suction cups similar to those utilized at the outer surface of the sheet-form member.

In assembling the embodiment of FIG. 4, the sheet-form member 19 may be either cut from a large stock sheet, or individually molded to any form desired. It is then placed in a suitable mold and the soap in soft form pressed over and molded onto the surface of the sheet-form member, the soap flowing around the protuberances 24 and subsequently hardening to retain the protuberances 24 permanently embedded therein, and forming a very strong positive affixing means. If desired, the material used to form the protuberances may be some-

what stiffer than that desired for the suction cups. In such case, the sheet-form member may be formed of two layers adhesively affixed together, a stiffer upper layer integrally molded with the protuberances 24 and a more flexible lower layer integrally molded with the suction cups 20, and it is intended that the showing be considered to diagrammatically include this construction.

The present invention provides articles of use which are modified to form a new article of manufacture which is extremely convenient to handle since it may be readily mounted on a smooth flat nonporous surface and readily removed when needed again. In addition to the articles mentioned above, the invention may be utilized to form composite self-holding articles of various other types such as tools, household utensils, paintbrushes, and a large variety of other items.

While but two forms of the invention have been shown and described, other forms within the spirit and scope of the invention will now be apparent to those skilled in the art. Therefore the embodiments shown in the drawing are to be considered as merely setting forth the useful article of manufacture combination invention for illustrative purposes, and are not intended to limit the scope of the invention herein described, shown and claimed. It is further to be noted that while directional terms have been used, same are not to be construed as a limitation of the invention since such use has been availed of to better describe the invention as used and illustrated in the drawing.

Other modes of applying the principle of my invention may be employed instead of those explained, change being made as regards the means and the methods herein disclosed, provided those stated by any of the following claims or their equivalent be employed.

I therefore particularly point out and distinctly claim as my invention:

1. A composite article of manufacture consisting essentially of:

- (a) a base member consisting of a scrubbing material,
- (b) a resilient sheet-form member having a plurality of suction cups projecting from one surface thereof, and
- (c) means permanently affixing the surface opposite said suction cup surface to said base member to form a composite article having said plurality of suction cups projecting from one side thereof,
- (d) said suction cups being adapted to engage a nonporous smooth surface for supporting said composite article with respect to said smooth surface.

2. A composite article as defined in claim 1 wherein said base member is a bar of soap.

3. A composite article as defined in claim 1 wherein said base member is a bar of soap, and said permanently affixing means is an adhesive material.

4. A composite article as defined in claim 1 wherein said base member is a bar of soap, and said permanently affixing means is paraffin.

5. A composite article as defined in claim 1 wherein said base member is a bar of soap, said permanently affixing means includes a plurality of protuberances integrally molded with said sheet-form member,

said protuberances each comprising a constricted neck proximal to said sheet-form member and an enlarged portion distal thereto,

said protuberances being embedded in said bar of soap.

6. A composite article as defined in claim 1 wherein said base member is a bar of soap, and

said permanently affixing means includes an adhesive material and a fabric sheet interpost between the surfaces of said sheet-form member and said bar of soap for retaining said adhesive material and enhancing the adhesive bond formed thereby.

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7. A method for forming a composite article of manufacture consisting essentially of the steps:

- (a) providing a base member consisting of a scrubbing material,
- (b) applying an adhesive to a surface of said base member,
- (c) providing a sheet-form member having a plurality of suction cups on one surface thereof, and
- (d) bringing the surface of said base member having an adhesive applied thereto and a side of said sheet-form member opposite said suction cups together for an amount of time sufficient to allow the adhesive to set thereby forming a composite article having a base member permanently fixedly attached to said sheet-form member.

8. A method as defined in claim 7 wherein a fabric sheet is inserted between the surface of the base member having an adhesive applied thereto and the side of the sheet-form member opposite said suction cups before they are brought together.

9. A method for forming a composite article of manufacture consisting essentially of a bar of soap and a resilient sheet-form member having a plurality of suction cups at its outer surface and affixed at its inner surface to said bar of soap, said method comprising:

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- (a) providing the surface of said sheet-form member engageable with said bar of soap with a plurality of protuberances having enlarged integral portions,
- (b) pressing soap in soft form over said protuberances, and
- (c) causing said soap to solidify so that the protuberances are embedded in said soap and provide strong attachment between the sheet-form member and the bar of soap.

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