

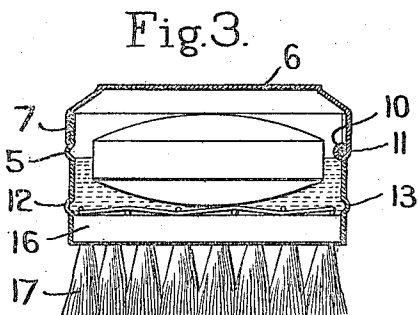
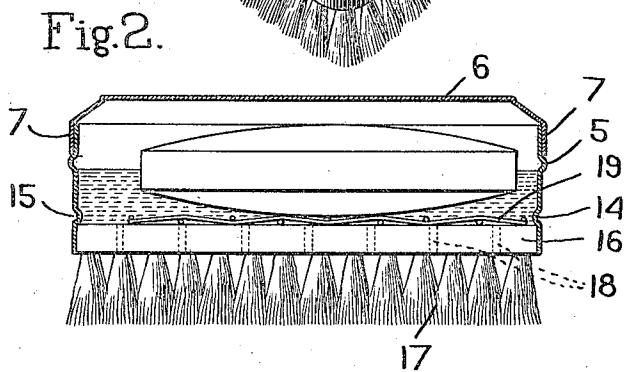
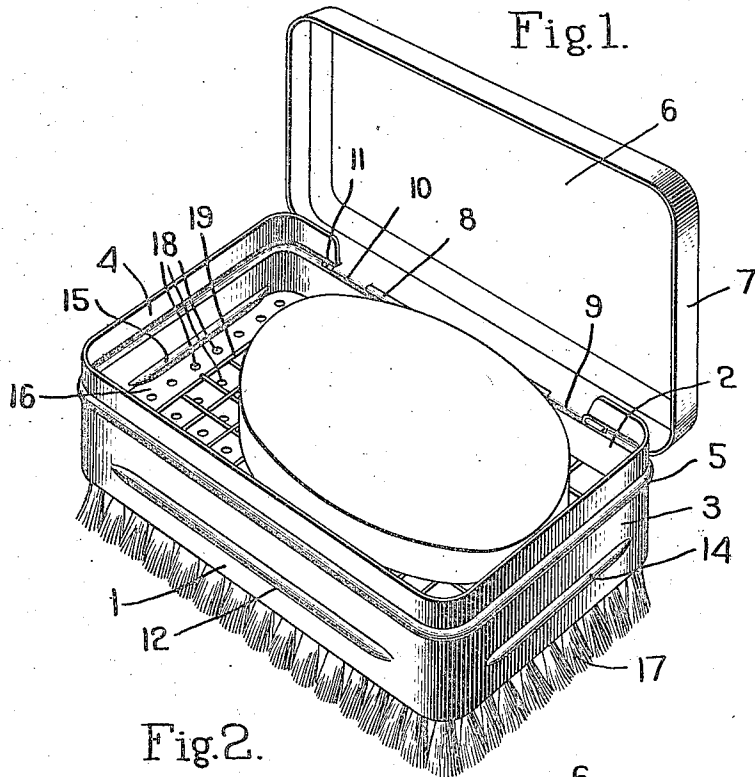
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COMBINED DETERGENT RECEPTACLE AND BRUSH

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UNITED STATES PATENT OFFICE.

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COMBINED DETERGENT RECEPTACLE AND BRUSH.

Application filed December 20, 1922. Serial No. 608,085.

To all whom it may concern:

Be it known that I, DENNIS B. KEARNEY, a citizen of the United States, and a resident of Keene, county of Cheshire, State of New Hampshire, have invented an Improvement in Combined Detergent Receptacles and Brushes, of which the following description, in connection with the accompanying drawing, is a specification, like characters on the drawing representing like parts.

This invention relates to a combined receptacle and brush and the principal object thereof is to provide a convenient device for holding a detergent, provided with a brush by means of which a liquid containing the detergent can be applied to the surface to be cleansed.

More particularly the invention relates to a combined soap box and brush which can be employed as a fountain brush to apply water, containing a detergent, to the surface to be cleansed.

A further object of the invention is to provide a device of the character described with means for abrading the detergent and thereby facilitating the production of a soapy solution.

A further object of the invention is to provide a device of the character described so constructed that the brush may be readily removed and replaced, thereby permitting the brush and receptacle to be readily dried or a new brush substituted for the one which is worn.

Other objects and features of the invention will more fully appear from the following description and the accompanying drawing and will be particularly pointed out in the claims.

In the drawing:

Fig. 1 is a perspective view of a combined soap box and brush embodying the invention, the soap box being shown as in open position, displaying the soap and a device for abrading the soap;

Fig. 2 is a vertical longitudinal sectional view on a somewhat reduced scale, the soap, abrading device and brush being shown in elevation; and,

Fig. 3 is a transverse sectional view similar to Fig. 2.

The combined detergent receptacle and brush illustrated in the accompanying drawing comprises broadly impervious side walls having a top closure and a side, preferably

the bottom, consisting of a brush suitably secured within said walls, means being provided to permit a liquid to percolate from the receptacle to the bristles of the brush.

In the preferred embodiment of the invention illustrated the receptacle comprises sheet metal side walls 1 and 2 and end walls 3 and 4 continuous therewith, said walls preferably being provided with an externally extending rib 5 located at a short distance from the upper edge of said walls which acts as a strengthening rib and also as a means for engaging the edge of the cover. The receptacle is provided with a closure which, as illustrated herein, comprises a cover 6 having a flange 7 adapted to embrace and fit the upper portion of the side and end walls.

The back side wall 2 desirably is provided with a recess and also with a central tab 8 which is turned inwardly and forms, with the curved wall of the strengthening rib 5, a cylindrical hinge member. The rear edge of the cover 6 is provided with extensions or tabs 9 and 10 bent into cylindrical form and adapted to fit into recesses at the end of the cylindrical hinged member 8. A pintle 11, extending through the hinge members 8, 9 and 10, completes the hinge for the cover so that the cover, while permanently secured to the box, can be swung into open position as illustrated in Fig. 1, or to closed position as illustrated in Figs. 2 and 3.

The side walls 1 and 2 desirably are provided with external strengthening ribs 12 and 13 which preferably extend throughout the central portion of the receptacle nearly to the corners thereof and the end walls of the receptacle are provided with internally extending ribs 14 and 15 which are located at a short distance from and extend in parallelism with the lower edge of said end walls. These ribs act also as strengthening ribs and as abutments to engage the brush head. It will be understood that if desired the ribs 12 and 13 may extend inwardly instead of outwardly, or if desired a continuous inwardly extending rib may be provided along both the side and end walls to engage the brush head. These ribs may be readily formed in the sides by stamping or pressing as is usual in sheet metal constructions.

The bottom of the receptacle desirably is formed by the head of the brush. As illustrated herein the head 16 of the brush is so

formed as to fit within the lower portion of the walls and of a width corresponding to the distance between the internally projecting ribs 14 and 15 and the lower edge of the walls. The brush may be formed in the usual manner with suitable bunches or tufts of bristles 17.

The brush head thus formed is readily held within the receptacle walls by friction, or if desired may be secured permanently therein. The receptacle thus constructed is adapted to receive detergent, preferably in the form of a cake of soap, and also to receive a supply of water or other suitable liquid.

Means are provided for permitting the liquid to percolate from the receptacle to the brush. Where the brush is thus held in place by friction of the walls of the receptacle the liquid will gradually percolate down along the edge of the brush to the bristles. If desirable, however, the brush head may be provided with suitable perforations 18 to facilitate the passage of the liquid to the bristles 17 of the brush.

The detergent is preferably in the form of a cake of shorter dimensions than the interior of the receptacle so that as the brush is reciprocated in use the cake of detergent will slide from one end of the brush to the other in the liquid contained in the receptacle thereby rapidly producing a soapy water which percolates to the bristles. In order to facilitate the production of a soapy liquid a device is desirably provided within the receptacle which will abrade the cake of detergent during the use of the brush. The preferred abrading device which is illustrated herein comprises a reticulated member, such as, a section of coarse mesh wire cloth which rests upon the back or upper surface of the brush head and desirably is somewhat shorter and narrower than the length and width respectively of the receptacle so that the abrading member will be free to reciprocate upon the brush head as the brush is being used.

In the operation of the device when assembled the cake of soap or other detergent material is placed within the receptacle and a desirable amount of water poured into the receptacle. The cover is then closed and the brush used in the usual manner. The reciprocation of the brush during the cleansing operation causes the soap and also the abrading device to travel back and forth within the receptacle and to abrade the under face of the cake of detergent thereby creating a soapy liquid which percolates along the edges of the brush or through the apertures 18 to the bristles thereby supplying the needful amount of liquid detergent mixture to rapidly clean the surface to which the brush is applied. As the brush is reciprocated back and forth the soap and

the abrading device travel back and forth and move relatively to each other so that the under face of the cake of detergent is sufficiently abraded to enable a strong soapy solution to be produced quickly.

When the device is not in use the brush can be readily removed by pressure upon the back of the brush so that both it and the receptacle can be readily dried and easily re-assembled.

It will be understood that the embodiment of the invention disclosed herein is of an illustrative character and is not restrictive and that various changes in form, construction and arrangement of parts may be made within the spirit and scope of the claims.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is:

1. A combined receptacle and brush comprising a compartment, to receive a detergent, provided with a wall having tufts of bristles extending therefrom to form a brush and having means for permitting a liquid placed in said receptacle gradually to percolate to said brush and a reticulated member reciprocable in said receptacle operating to abrade the soap during the use of the brush.

2. A combined soap box and brush comprising a receptacle having sheet metal side and end walls provided with an externally projecting rib extending in parallelism with the upper edge, a cap having flanges embracing the upper portion of the side and end walls, internally projecting ribs in opposite walls located at a distance from the lower edge of said walls, a brush having a head fitting the lower portion of said side walls, abutting against said internal ribs, and held in place by friction and means for permitting water placed in the receptacle to percolate to said brush.

3. A combined soap box and brush comprising a receptacle having sheet metal side and end walls provided with an externally projecting rib extending in parallelism with the upper edge, a cap having flanges embracing the upper portion of the side and end walls, internally projecting ribs in opposite walls located at a distance from the lower edge of said walls, a brush having a head fitting the lower portion of said side walls, abutting against said internal ribs, and held in place by friction, means for permitting water placed in the receptacle to percolate to said brush and a reticulated device freely resting upon the back of said brush and reciprocable when the brush is in use to abrade the under surface of a cake of soap placed in said box.

4. A combined soap box and brush comprising a rectangular receptacle having continuous sheet metal sides and ends provided at a distance from the upper end with an

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externally projecting strengthening rib and
at a distance from the lower edge of the
sides with externally extending strengthen-
ing ribs and having at its ends internally ex-
5 tending abutment ribs, a brush fitting in
the lower portion of the sides of said re-
ceptacle, engaging the abutment ribs, and

retained by frictional engagement with said
walls and means for permitting water
placed in said receptacle to percolate to said
brush. 10

In testimony whereof, I have signed my
name to this specification.

DENNIS B. KEARNEY.