

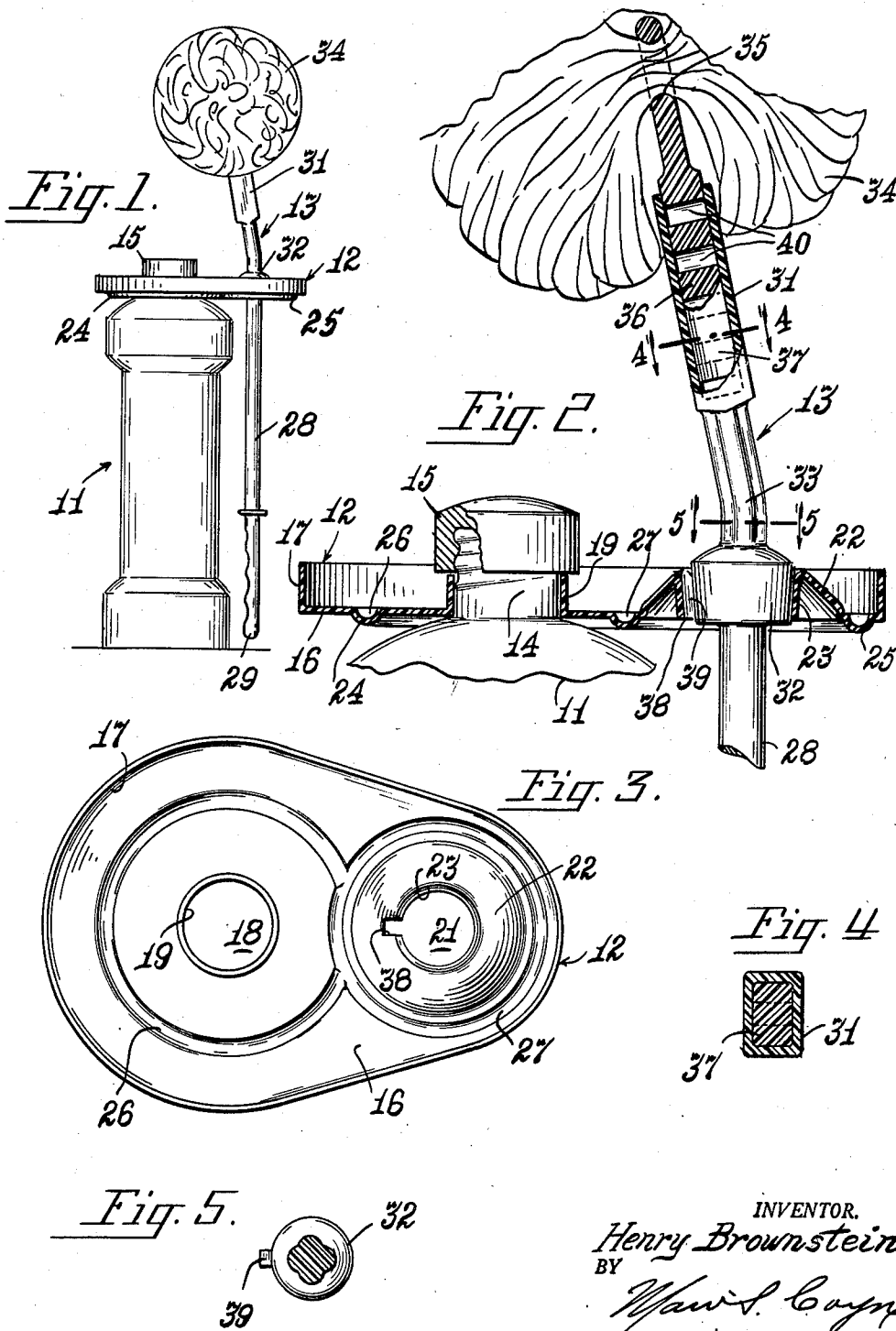
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CLEANING APPLIANCE

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CLEANING APPLIANCE

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9 Claims. (Cl. 15—257)

The invention relates to improvements in cleaning appliances and more particularly to the novel structure and assembly of a hand-mop or swab and a tray-holder of a character to be associated one with the other and with a container for a cleaning solution in such manner as to be available for use readily.

Cleaning, disinfecting and polishing solutions, or the like, used to clean kitchen and bathroom fixtures, are applied usually by means of an applicator hand-mop, swab or the like. Following the use of the applicator, the user is confronted with the problem of immediate storage of the now wet applicator. This problem is resolved in a satisfactory manner by the use of the assembly herein disclosed which comprises a tray-holder adapted to be supported on the neck of the container of the solution and which is formed with means to receive and support the applicator in such a position that any drip therefrom is collected in the tray.

It is therefore an object of the invention to provide a novel combination hand-mop and holder therefor.

Another object is to provide a novel tray-holder of a character adapting it to be mounted on a container in such a position as to receive drippage from a hand-mop mounted thereon.

With the foregoing and other objects in view which will appear as the description proceeds, the invention consists of certain novel features of construction, arrangement and a combination of parts hereinafter fully described, illustrated in the accompanying drawings, and particularly pointed out in the appended claims, it being understood that various changes in the form, proportion, size and minor details of the structure may be made without departing from the spirit or sacrificing any of the advantages of the invention.

For the purpose of facilitating an understanding of the invention, there is illustrated in the accompanying drawings, a preferred embodiment thereof, from an inspection of which, when considered in connection with the following description, the invention, its mode of construction, assembly and operation, and many of its advantages should be readily understood and appreciated.

Referring to the drawings in which the same characters of reference are employed to indicate corresponding or similar parts throughout the several figures of the drawings:

Fig. 1 is an elevational view of the assembly embodying the features of the invention.

Fig. 2 is an enlarged fragmentary sectional view of the assembly, showing parts in elevation.

Fig. 3 is a plan view of the tray-holder.

Fig. 4 is a sectional detail view taken on line 4—4 of Fig. 2.

Fig. 5 is a detail sectional view taken on line 5—5 of Fig. 2.

The assembly disclosed in the accompanying drawings comprises a fluid container 11, a tray-holder 12 and an applicator or hand-mop or swab 13.

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The container 11 may be of any conventional shape having a circular pouring neck 14 normally closed by a screw or friction type cap 15. The container is of an overall size and shape so as to receive the tray 12 and hand-mop 13 mounted in association therewith in the manner illustrated.

The tray 12 is substantially oval-shaped and it includes a thin bottom wall 16 and a thin upstanding perimeter wall 17. The tray may be made of any suitable material, preferably molded plastic, so as to be light in weight and inexpensive. Adjacent to one end of said tray, and concentric with the perimeter wall 17 at said end, is a circular opening 18 having an upstanding peripheral flange 19. The opening 18 is of sufficient size to receive the neck 14 of the container therethrough. When the container cap 15 is replaced on the neck, the tray is held against removal or displacement.

A circular opening 21 is also provided inwardly of the other or smaller end of the tray, which opening is concentric with the perimeter wall 17 at said end. A circular area of the bottom wall 16 surrounding the opening 21 is domed upwardly, as at 22, and it merges at its upper edge in an integral downwardly inwardly tapered circular flange 23 surrounding said opening 21. Suitable reinforcement for the thin bottom wall 16 is afforded by providing annular ribs 24—25 on the bottom face of said wall, one concentric with each opening 18—21. These ribs define channels 26—27 in the top surface of the bottom wall 16 into which liquid collected in the tray, in a manner to be described presently, is collected.

The hand-mop 13, best shown in Figs. 2, 4 and 5, is comprised of an elongated handle portion 28 having a hand grip 29 on one end and formed on its other end with an elongated hollow socket 31 which is substantially rectangular in section. A circular, axially tapered enlargement or boss 32 is formed integral with the handle portion 28 inwardly of the end carrying the socket 31, and the handle portion between the said socket and enlargement is curved slightly, as at 33. A rope-type swab or mop-head 34 is mounted firmly in an aperture 35 in a bracket 36. The bracket has an elongated end portion 37 rectangular in section, formed with spaced openings 40, adapted to telescope tightly into the socket 31 for mounting the mop head on the handle portion 28.

When the hand-mop 13 is not being used, it may be supported in a substantially vertical position by the tray-holder 12. As best shown in Fig. 2, the tapered enlargement 32 is seated in the tapered flanged opening 21 and, partly because of the curvature 33 in the handle portion, the mop head 34 is disposed above the tray at all times. Such disposition of the mop head is assured by providing the flanged opening 21 with a keyway 38 to receive a key 39 formed integral with the tapered boss 32.

It should be quite evident at this time that the tray-holder may be easily and quickly mounted and retained in place on the neck of the container and that the hand-mop is supported at all times when not in use, in such a position that any fluid dripping from its mop-head will be collected in the tray-holder. Furthermore, the structure is such that the hand-mop is always available for instant use and may be removed from the tray-holder with minimum effort.

It is believed that the invention, its mode of construction and assembly, and many of its advantages should be readily understood from the foregoing without further description, and it should also be manifest that while a preferred embodiment of the invention has been shown and described for illustrative purposes, the structural details are nevertheless capable of wide modification within the purview of the invention as defined in the appended claims.

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What is claimed and desired to secure by Letters Patent of the United States is:

1. In a cleaning appliance adapted to be mounted on a container having a neck, the combination of, a tray, said tray including a bottom wall and an upstanding perimeter wall, the bottom wall having an aperture adjacent to one end to receive the neck of the container therethrough for supporting the tray on the container and an opening adjacent to the other end of said bottom wall, said wall being upset annularly in the area surrounding said opening, a downwardly extending peripheral flange integral with the upset portion and surrounding said opening to define a tubular socket, a mop including a mop-head and an elongated handle, and an enlargement on said handle adjacent to the mop-head adapted to be seated in the socket when the handle is extended therethrough to support the mop-head above said tray.

2. In a cleaning appliance of the character recited in claim 1, in which the mop-head is offset from the axis of the handle and cooperating means is provided on the enlargement and in the socket to retain the mop-head in a predetermined position with respect to the tray.

3. In a cleaning appliance, a tray adapted to be mounted on a container for supporting a hand-mop, said tray comprising, in combination, a bottom wall, an upstanding perimeter flange on said wall, said wall having a first opening to receive a portion of the container therein, a second opening in said bottom wall, said wall being flared upwardly in the marginal area surrounding said second opening, and a downwardly extending circular flange integral with the free edge of said flared area, said second opening and circular flange defining a hand-mop receiving socket said socket having means for supporting said hand mop so that said tray underlies said mop at all times when said mop is being so supported.

4. In a cleaning appliance of the character recited in claim 3, in which reinforcing ribs are formed in the bottom wall.

5. In combination, a mop and a tray for supporting said mop, said mop comprising a handle portion and a vertically disposed key on said handle portion, said tray comprising a vertically disposed keyway for receiving said key and means for supporting said handle portion when the key is in said keyway, said mop comprising a

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mop head and means connecting said mop head to said handle portion for locating the mop head in an overhanging position above said tray when and substantially only when said key is in said keyway.

6. A combination as recited in claim 5 wherein said connecting means comprises an intermediate portion having a first end attached to said handle portion and a second end connected to said mop head, said intermediate portion extending angularly to one side of said handle portion.

7. In combination, a mop and a tray for supporting said mop, said mop comprising a handle, mounting means on said handle, and a vertically disposed key on said mounting means, said tray comprising a vertically disposed keyway for receiving said key, and means adjacent said keyway for engaging said mounting means to support said handle when said key is received within said keyway, said mop comprising a mop head and means connecting said mop head to the handle portion for locating the mop head in an overhanging position above said tray when and substantially only when said key is in said keyway.

8. A combination as recited in claim 7 wherein said mounting means comprises a tapered enlarged portion on said handle, and said engaging means comprises a tapered socket in said tray for receiving said enlarged portion.

9. In combination, a mop and a tray for supporting said mop, said mop comprising a handle, a mop head connected to said handle, a tapered enlarged portion on said handle, and a vertically disposed key on said enlarged portion, said tray comprising an opening for receiving said handle, a keyway adjacent said opening for receiving said key and a tapered socket adjacent said key way for receiving and engaging said enlarged portion to support said mop when said key is in said keyway.

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