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CLEANING SWAB FOR TOILET BOWLS

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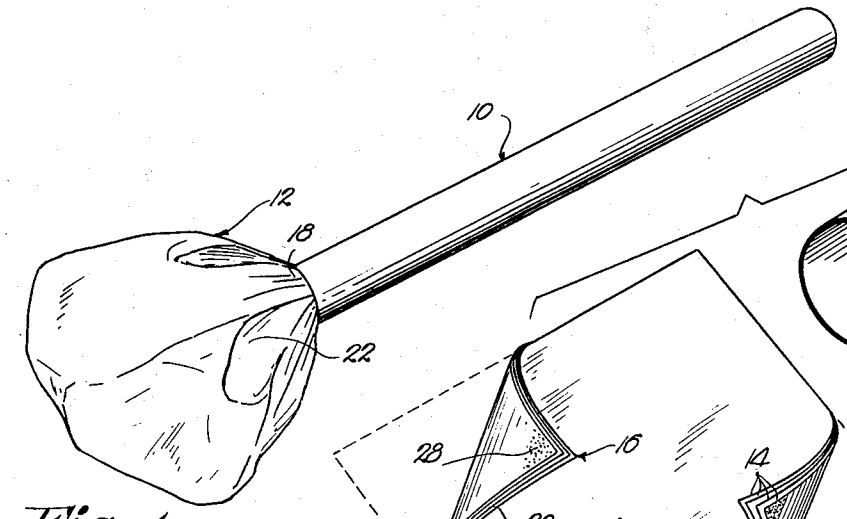


Fig. 1.

Fig. 2.

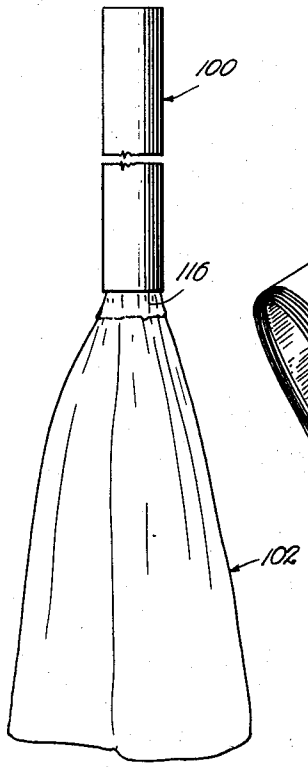


Fig. 3.

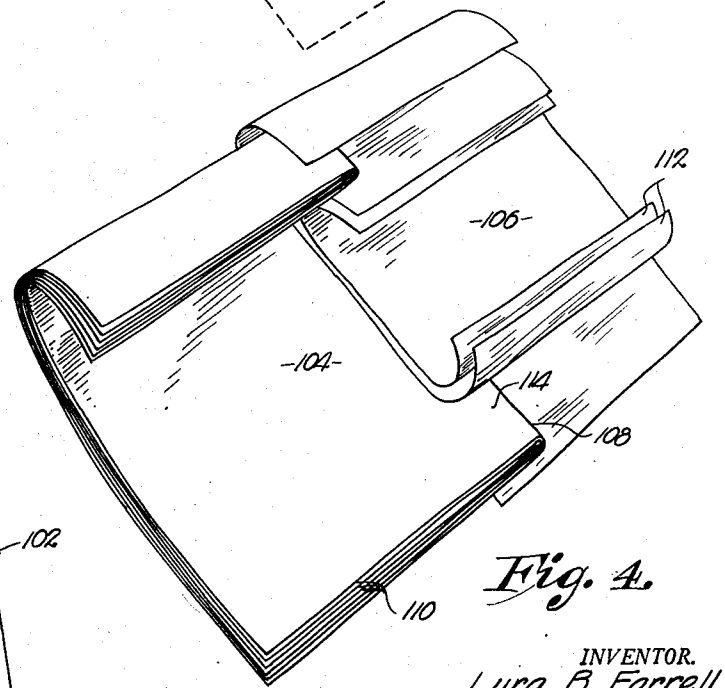


Fig. 4.

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CLEANING SWAB FOR TOILET BOWLS

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1 Claim. (Cl. 15—210)

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This invention relates to an article of manufacture particularly adapted for use in the home and usable in cleaning bathroom fixtures such as the toilet bowl thereof and taking the form of a swab having a readily disposable head that is mounted on a handle and automatically releases from the handle when wet.

The most important object of the present invention is to provide a cleansing swab having a disposable head made from a plurality of superimposed layers of highly absorbent material, the layers being gathered together in a relatively small neck for attachment to a handle, whereby, as the device is placed in use, the head will release itself from the handle as soon as the neck portion thereof disintegrates by the action of water thereon.

Another important object of this invention is to provide a cleansing swab having a head that is hollow and provided with openings in the side thereof to receive the water and aid in the detachment of the head from the handle at the gathered neck portion of the hollow head.

More minor objects, including details of construction and specific improvements over my aforesaid disclosure, will be made clear or become apparent as the following specification progresses, reference being had to the accompanying drawing, wherein:

Figure 1 is a perspective view of a cleaning swab with disposable head made according to one form of my present invention.

Fig. 2 is a perspective, stretched-out view illustrating the initial steps in the formation of the swab shown in Fig. 1.

Fig. 3 is a side elevational view of a cleaning swab having a disposable head made in accordance with a modified form of the present invention; and

Fig. 4 is a perspective view showing the interleaved sections of the head portions of the swab of Fig. 3 in the initial stages of manufacture thereof.

In a previous type of a swab assembly, there is a cleansing swab having a disposable head that includes a plurality of elongated strips joined to the handle portion thereof by a line of weakness. The head portion of the swab is rendered somewhat water-proof through the use of an adhesive coating, rendering the head thereof readily disposable by disintegration so that the latter readily separates from the handle in response to the action of water thereon.

The present invention, as will hereinafter become apparent, has also as one of its primary aims, the provision of a handle and a disposable head of material having differing degrees of absorption so that the two portions of the device readily separate during use.

In the form of my invention shown in Figs. 1 and 2 of the drawing, there is illustrated a cleaning swab provided with an elongated handle portion 10 and a balloon-shaped, hollow disposable head 12 carried by the handle 10 at one end thereof. Figure 2 of the drawing, clearly illustrates the way in which these two portions 10 and 12 of the swab are formed, head 12 comprising a plurality of superimposed layers 14 of initially flat sheet material.

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It is noted that layers 14 are polygonal and preferably square as illustrated, and each of the layers must be of a suitable, highly absorbent material, capable of relatively rapid disintegration when subjected to moisture such as water that commonly stands in the bowl portion of a toilet stool. It is preferred that the material forming the layers 14, be made of paper or paper-like substance, such as that usually employed in toilet paper and cleansing tissues.

After the layers 14 have been superimposed upon each other as shown in Fig. 2 of the drawing, the four corners 16 thereof are folded inwardly toward each other above the uppermost face of the top layer 14 and held together in face-to-face relationship while the same are gathered into a relatively small neck portion 18. It is this bringing together of the corners 16 of the superimposed layers 14, that presents the hollow balloon-shaped body 12 illustrated in Fig. 1 of the drawing. Opposed edges 20 extending from corners 16 present in head 12, a plurality of elongated openings 22 that extend from the neck portion 18 toward the closed base end of head 12.

The handle 10 may be made from any suitable initially flat, sheet material such as paper or cardboard, and is distinguished in its composition from the layers 14 by the fact that such material for handle 10, should not be of a highly absorbent nature and while the same may be made from paper or paper-like substances, it is preferred that it be incapable of rapid disintegration when subjected to the action of water.

As shown in Fig. 2 of the drawing, the initially flat sheet of bendable material 24, is rolled into an elongated, substantially cylindrical tube and into as many convolutions as is desired. The marginal edges 26 of the sheet 24 are thereupon interconnected in any suitable manner such as through use of an adhesive substance. The neck portion 18 of the head 12 is thereupon extended into one open end of the tubular handle 10 and secured thereto in a suitable manner such as through use of glue or the like. If desired, at the time of rolling the sheet of material 24 into tubular handle 10, the neck 18 of head 12 may be positioned on the sheet of material 24 and the latter coiled tightly about the neck 18 to aid in the interconnection between handle 10 and head 12.

When the swab just above described and illustrated in Figs. 1 and 2 is placed in use, the operator merely grasps the handle 10 and utilizes the

head 12 in the toilet bowl to cleanse the same. Hollow head 12 is dipped into the water within the bowl to provide a cleanser and as the device is used, the entire head 12 will gradually become completely saturated with the water and by capillary action, neck 18 will become fully absorbed to a point of disintegration. By virtue of the number of openings 22 in the hollow head 12, water can readily enter into head 12 and by virtue of the inherent weight of such contained water, neck 18 will readily break loose from the handle 10 and fall into the bowl for final disposition. After neck 18 becomes fully saturated with water, it will disintegrate rapidly by the very nature of the material from which layers 14 are made. The user can thereupon dispose of the handle 10 by throwing the same into a waste basket or the like, without the need of subjecting his hands to the water in the toilet bowl. Since the disposable head 12 is flushed away, there is no need to utilize a brush or other element commonly employed in the bathroom and such unclean objects can be entirely dispensed with when placing the device above described, in use.

In the form of my invention illustrated in Figs. 3 and 4 of the drawing, there is illustrated a cleaning swab comprising an elongated handle 100 having a disposable head 102 on one end thereof. The handle 100 is of tubular nature and may be formed in precisely the same manner as handle 10 above described if desired. Head 102 differs substantially however, and includes a pair of separate interconnected sections 104 and 106 respectively.

Section 104 constitutes a number of initially flat, polygonal sheets of highly absorbent material of the same character as the material forming sheets 14 (Figs. 1 and 2) that are first arranged in superimposed relationship and thereupon folded on a median line as at 108. There is thereby presented a plurality of superimposed layers 110.

The section 106 is likewise formed of the same material and constitutes a number of superimposed layers 112 thereof. The marginal edge 114 of the section 104 adjacent to and parallel with the line of fold 108, is interleaved or extended between certain layers 112 of section 106 as clearly illustrated in Fig. 4 of the drawing.

After the sections 104 and 106 have been thus associated, the entire body formed of the two sections 104 and 106, is rolled into the elongated body 102, section 106 thereby serving as means of attachment for the section 104 by virtue of the gripping action upon marginal edge 114 through the rolling step. Substantially all of the tightly rolled section 106 is thereupon extended into one open end of the body 100 and secured thereto. A relatively small neck 116 forming a part of the head 102 is presented adjacent the handle 100 and the hollow head 102 extending outwardly from the neck 116 is of a flared nature as is clear in Fig. 3 of the drawing. Here again, if desired, the sheet of material forming handle 100, may be tightly wound about a substantial portion of the section 106 in the steps of manufacture to aid in the interconnection between handle 100 and head 102. However, a suitable adhesive for joining section 106 with the handle 100 is desirable. It is noted in Fig. 4 of the drawing that the section 104 constitutes an appreciably larger number of layers 110 than the section 106.

By virtue of this construction, as soon as the head 102 becomes saturated and filled with water during use, it will become sufficiently heavy to

part from its interleaved connection with section 106. This separation will be enhanced as the water approaches the section 106 and particularly that end of the latter that projects outwardly from handle 100 as shown in Fig. 3. Water will move toward the neck portion 116 by capillary action, or if the user desires to quickly dispose of the section 104, he can dip the neck 116 into the water, thereby causing a more rapid disintegration of that part of the section 106 having contact with the marginal edge 114 of section 104. As soon as the section 106 begins to disintegrate by action of water saturated therein, it will release its grip upon the marginal edge 114 of section 104 and by virtue of the weight of the latter not only because of the large number of layers 110, but because of the water contained therein, such section 104 will automatically release itself from the handle 100. Here again, the section 104 of head 102 is rendered disposable and the handle portion 100 with its contained section 106, can be thrown away in a separate container if desired. It is seen that in either case, heads 12 and 102 respectively, present efficient swabs that can be placed in use easily and quickly in an efficient manner to thoroughly cleanse toilet bowls or other articles wherein the user is reluctant to use his hands or utilize a brush or the like that soon becomes filthy and unsightly and therefore, highly undesirable.

Such advantages as will emanate from utilization of the cleaning swabs hereof and not above set forth, as will fairly come within the spirit of this convention, are manifestly contemplated hereby and it is, therefore, desired to be limited only by the scope of the appended claim.

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

A cleansing swab comprising an elongated handle and a head, said head including a plurality of initially flat, identical, superimposed, polygonal layers of imperforate, highly absorbent sheet material capable of immediate disintegration when dipped in water, said layers having a plurality of corners gathered into a neck, presenting a hollow, ballooned body extending from the neck, there being a number of openings in said body adjacent the neck of the head, one of said layers being provided with a patch of adhesive material adjacent each corner thereof respectively, said handle comprising an initially flat sheet of material coiled at one end thereof around the neck in engagement with said patches of adhesive material for joinder of the handle to the head by adherence of the handle to said one layer, the remaining layers being housed within the said one layer.

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