SANITARY TOOTHBRUSH HOLDER
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This invention relates to toothbrush holders and particularly to a toothbrush holder possessing the feature of sanitation in the storage of the brush by retaining the head of the brush covered when in the stored position and by maintaining the brush completely isolated from adjacent brushes or any other object, at least as to the head of the brush.

An object of the invention is to provide a mechanically simplified holder for a toothbrush, wherein the brush is held by a pair of jaws gripping against the neck of the brush or the portion of the handle closely adjacent to the brush head. The jaws are yieldingly pressed to a definite position and are spread by the brush head when it is inserted in the holder. They immediately return or tend to return to their original position, fitting beneath the brush head and holding it in place. In order to remove the brush it is only necessary to pull the brush from the holder, the brush head being ordinarily slightly larger in width than the neck or handle of the brush, spreads the jaws against the yielding opposition of the resilient means that support the jaws so that the brush can be easily extracted in a single pulling motion.

One of the important features of this invention is in the actual construction. In this regard there is a stop on the brush holder that projects outwardly from the essentially flat base of the holder, keeping the brush handle at an angle to the base and the wall or other supporting surface for the holder. This facilitates manual gripping of the handle by assuring that there will be room behind the handle. As a result the removal of the brush from the holder is simplified. These together with other objects and advantages which will become subsequently apparent reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming a part hereof, wherein like numerals refer to like parts throughout, and in which:

Figure 1 is a front elevational view of the brush holder showing it applied to a supporting surface and provided with a toothbrush.

Figure 2 is a sectional view taken on the line 2—2 of Figure 1.

Figure 3 is a sectional view taken on the line 3—3 of Figure 2.

Figure 4 is a transverse sectional view taken on the line 4—4 of Figure 3.

Figure 5 is a fragmentary sectional view showing the brush in the process of being either inserted or removed.

Figure 6 is a fragmentary sectional view showing a modification of the holder.

In the accompanying drawings there is a toothbrush holder 10 constructed to exemplify the principles of the invention. The holder is made of an essentially flat base 12 which is approximately rectangular in shape. There are means for fastening the base 12 to a supporting surface, for instance wall 14. These means may assume a number of forms. However, it is preferred that an adhesive 16 be used. The adhesive 16 consists of a resilient pad 18 on one surface 20 of which there is an adhesive to which the back surface of base 12 will adhere. On the opposite surface of the resilient pad 18 there is a film 22 of adhesive for attaching the pad 18 to the supporting surface 14. Adhesive film 22 can be protected by a peel-off panel until it is ready to be used.

Cover 24 is attached to base 12 and rises from the front surface thereof. The cover can be of various shapes and ornamented if it is found desirable. The illustrated cover has a portion 28 which is arcuate and two sides 30 and 32 that are straight. The edges of the sides are attached to the edges of the base 12, for instance by cementing. Top wall 34 is attached to sides 32 and 30 and the front wall 28. The lower end of cover 24 is open providing entrance 36 into which the head and a part of the handle of toothbrush 38 can be fitted. The edge 40 of the entrance 38 is smoothly curved for ornamental purposes and is relieved to enlarge the size of entrance 36.

Toothbrush 38 is a conventional toothbrush in all respects. It has a head 44 provided with bristles 46 and a handle 50. A neck 52 consisting of a reduced width part of handle 50 is integral with the remainder of the handle and the back of the brush head 44. Most toothbrushes are formed with a neck 52, although the invention will function very well with toothbrushes that have an absolutely straight handle.

The means for gripping the toothbrush when it is inserted in the holder are seen best in Figures 2—5. They consist of a pair of jaws 58 and 60 which may assume the configuration of two cylindrical pins whose axes are at right angles to the plane of base 12 and which are located at approximately the transverse center of the base. The pins are spaced from each other and are mounted in place by resilient means that flex when the toothbrush is inserted or removed as shown in Figure 5. These resilient means consist of a pair of strips 62 and 64 located above ventilation slots 66 and 68 in the base 12. The slots extend longitudinally of the base and are spaced from each other, as are the strips 62 and 64 thereby forming a passage 70 between the strips for insertion and removal of the toothbrush. The ends of the strips have right angular portions 72 (Figure 2) that are fixed to the base 12 thereby supporting the strips in juxtaposition to the base but spaced from it. Jaws 58 and 60 can be made integral with or fixed in some other way to the strips 62 and 64. The material from which the strips are made is resilient and elastic. It is resilient so that it yields an elastic in the sense that it tends to return to its original shape after yielding under pressure or some other applied force. Many types and grades of plastic possess this characteristic, and therefore it is intended that the entire device be made of plastic, although other materials of construction may be used in some instances.

There is a projection forming stop 80 on base 12 adjacent to the lower end thereof. The projection can be in the form of a short rib with a reinforcement 82 thereon and joined to the base. The purpose of the stop is to keep the handle 50 of the toothbrush spaced from the supporting surface 14 and lower part of base 12 so that there will be an ample space behind the toothbrush handle for a person's hand to fit behind it and grasp the toothbrush when pulling it out of the holder 10.

In operation, the toothbrush holder is installed as described. Then, when it is desired to use the holder the toothbrush is inserted, head end first into passage 70. The head 44 of the toothbrush spreads the jaws (Figure
5) with strips 62 and 64 spreading apart but tending to return the jaws to their original position (Figure 3). When the toothbrush is inserted far enough the neck 52 of the toothbrush handle is in the region of the jaws. Therefore, the jaws can return and grip onto the neck 52 of the toothbrush handle. The jaws form abutments against which the toothbrush head is suspended as shown in Figure 3.

In order to remove the toothbrush, since stop 80 automatically holds the handle 50 spaced from the supporting surface or structure 14, it is easily grasped in one hand. It is removed from the holder by a single pulling force which spreads the jaws as shown in Figure 5, enabling the brush to be separated with the head moving outwardly from entrance 36.

Although the illustrated and described form of the invention is capable of supporting only one toothbrush, and this is preferably for sanitation reasons, it is within the purview of the invention to duplicate the structure for holding the toothbrush releasably in place and on a common base 12a (Figure 6). Brushes 38a are shown in place within the two passages 70a of Figure 8. All other structure will be the same, except for dimensions in that the collar 24 will have to be made larger to fit on new base 12a regardless of its size. Other modifications fall within the purview of the invention. For instance, one of the jaws can be attached directly to one wall instead of to a resilient strip there being enough inherent resilience and elasticity in the walls to exert a yielding opposition force to the jaw on that wall when the toothbrush is being inserted and removed.

Moreover, in the multiple toothbrush embodiment of Figure 6, partitions can be placed between the passages 70a with the jaws attached to the partitions instead of attached to strips 64a and 62a. A further modification would have partitions in addition to strips 64a.

The foregoing is considered as illustrative only of the principles of the invention. Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction and operation shown and described, and accordingly all suitable modifications and equivalents may be resorted to, falling within the scope of the invention as claimed.

What is claimed as new is as follows:

1. A holder for a toothbrush comprising a flat elongated base adapted for attachment to a supporting surface, a pair of elongated opposite jaws on said base for gripping a head of a toothbrush inserted therebetween, said jaws comprising resilient flexible strips opposed edgewise to said base and having ends attached to the base, said strips being free and spaced from said base between the attached ends of the strips for flexing into friction gripping relation to a toothbrush head inserted between said strips.

2. A holder according to claim 1, and a pair of central crosspins fixed to said strips for engaging concave sides of a neck of a toothbrush in response to flexing of said strips into friction gripping relation to a toothbrush head.

3. A holder according to claim 1, including a cover on said base having an opening for insertion of a toothbrush head into said cover, an adhesive pad on one end of said base for attaching said base to a supporting surface in spaced relation thereto, and ventilation slots in said base beneath said strips at sides of the toothbrush head and neck.

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