Aug. 27, 1935. C. W. LA POSEA 2,012,685

TOOTHBRUSH HOLDER

Filed March 28, 1932

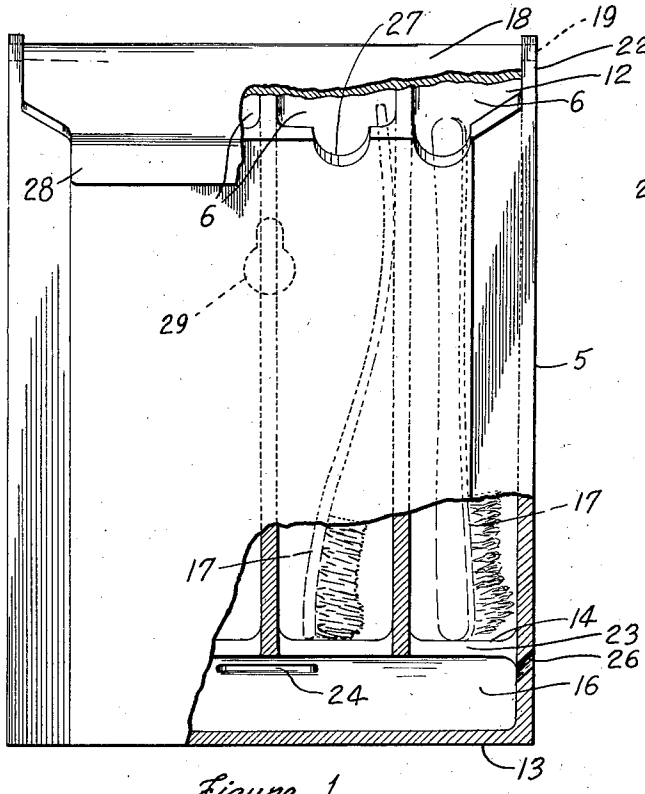

Figure 1.

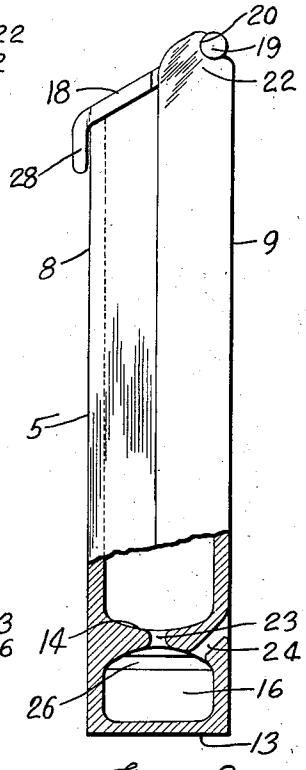

Figure 2.

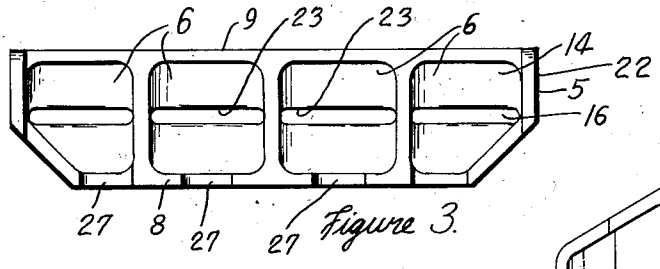

Figure 3.

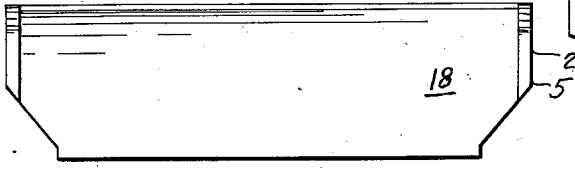

Figure 4.

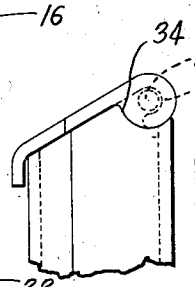

Figure 5

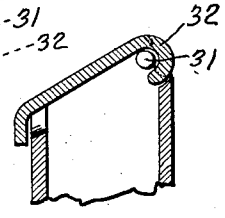

Figure 6.

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TOOTHBRUSH HOLDER

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6 Claims. (Cl. 206—15.1)

The invention relates to a means of supporting tooth brushes and keeping them in a sanitary condition for use.

An object of the invention is to provide a tooth brush holder which will support the brush in a completely enclosed manner and at the same time subject the brush to a thorough sterilization and desiccation without contact of any portion of the brush with chemicals supplying the sterilizing and desiccating agent.

Another object of the invention is to provide a holder of the character described arranged to accommodate a plurality of brushes simultaneously and in a manner not only preventing contact of one brush with another but preventing the sterilizing medium, after contact with one brush, from contacting with any of the other brushes in the holder.

A further object of the invention is to provide a holder of the character described which affords the desired isolation of the different brushes when in the holder and the use of a separate sterilizing medium for each brush, yet utilizes a common supply arrangement for all of the sterilization medium applied to the various brushes.

The invention possesses other objects and features of advantage, some of which, with the foregoing, will be set forth in the following description of the preferred form of the invention which is illustrated in the drawing accompanying and forming part of the specification. It is to be understood, however, that variations in the showing made by the said drawing and description may be adopted within the scope of the invention as set forth in the claims.

Referring to said drawing:

Figure 1 is a front view of the holder of my invention, with parts broken away to disclose some of the internal construction.

Figure 2 is an end view of the holder, partly in section.

Figure 3 is a plan view of the holder with the lid removed.

Figure 4 is a view similar to that shown in Figure 3 but with the lid in place.

Figure 5 is a fragmentary end view of the holder showing a modified form of the cover hinge.

Figure 6 is a sectional view of the holder as shown in Figure 5, and illustrating the hinge connection from inside the holder.

As illustrated in the drawing, the holder of my invention comprises a container 5 preferably formed of porcelain or like material and divided into a plurality of compartments 6 by means of partitions 7. The latter extend across the container from the front wall 8 to the rear wall 9 thereof and vertically from the open top 12 of the container to a point in spaced relation to the closed bottom 13.

Arranged at the lower extremity of the partitions 7 is what may be termed a false bottom 14 of the container, but such bottom as will be clear from Figures 1 and 2 provides a bottom in fact for each of the compartments. From the foregoing it will be evident that there is thus provided under the compartments a receptacle 16 the top of which is formed by the bottom 14. Each compartment is designed to receive a toothbrush 17 and is of such depth that when the brush is contained therein and resting on the bottom member 14, the entire brush will be disposed within the compartment. A cover 18 preferably of porcelain is hinged to the top of the container adjacent the rear wall 9, whereby the compartments may be completely covered and the brushes therein fully enclosed. As shown in this embodiment the hinged connection of the cover and container is afforded by means of cylindrical enlargements 19 preferably formed integral with the cover and arranged to seat in a recess 20 formed in the end walls 22 of the container. As will be clear from Figure 2 the upper edges of the walls and partitions defining the compartments are sloped downwardly from the back to the front of the container, and the cover 18 is arranged to extend correspondingly when in closed position. By thus forming the top of the compartments, access to the brushes in the compartments may be more readily had and at the same time less dust is apt to collect on the cover and it may be more readily kept clean.

Communication between the receptacle 16 and each of the compartments is afforded by means of openings 23 provided in the bottom member 14, and such receptacle is arranged to serve as a reservoir for chemicals or the like, appropriate for generating a vapor having sterilizing properties. A chemical in liquid form is generally most convenient for use in the holder, and such liquid may be easily introduced into the reservoir through an inlet opening 24 extending from the rear side of the holder.

In the use of the holder, the brushes are placed in the respective compartments with the bristle portion lowermost and directly over the openings 23, the upper side of the member 14 being preferably designed so as to converge toward the openings and thereby center the brush thereover. Circulation of the vapor through the compartments is induced by the opening 24 and inlet

openings 26 formed in the end walls 22, and outlet openings 27 which as here shown are in the form of notches provided at the upper edge of the front wall of the compartments and arranged to be completely covered but free for the discharge of vapor in the closed position of the cover 18 by an extension 28 thereof. It will be noted that both the inlet openings 24 and 26 lead directly to the reservoir 16, and that therefore the air entering the holder for effecting circulation of the sterilizing vapor through the compartments must first come in intimate contact with chemicals in the reservoir and thus prevent the passage through the compartments, and the contact with the brushes, of any impure air. Furthermore since the air and vapor can enter the compartments only through the respective bottom openings 23, each compartment will be insured of having admitted thereto fresh vapor and air directly from the reservoir and thus there will be no danger of the vapor and air passing from one compartment to another and thereby effecting a treatment of one brush with the same vapor and air already used for effecting the sterilization of another brush.

Attachment of the holder to a wall whereby the rear side of the holder may set thereagainst, is afforded by means of a slotted portion 29 arranged to be inserted over and held locked to a nail or the like protruding from the wall.

It will now be clear that the holder of my invention is well adapted for keeping the brushes dry, clean, and sterile, practically regardless of the air conditions surrounding the holder. Thus, since each of the compartments is completely enclosed, no dust, foreign matter, or liquid may be deposited on the brushes, and contact between the individual brushes is prevented. Also since the air entering the holder is always first purified before coming in contact with the brushes, any dirt or odors in the air will not be imparted to the brushes. And in addition, since the air and vapor is permitted free circulation through the compartments, not only will the brushes be subjected to an effective sterilizing action, but a thorough drying or desiccating action will be continually impressed on the brushes so as to render them more fit for frequent use and longer lasting.

In Figures 5 and 6 I have shown a modified form of hinge connection for the cover whereby the latter may completely overlie the entire container instead of being fitted between the end walls as in the first embodiment. In the modified form, the hinge pin 31 is disposed on the side of one of the inner walls or partitions of the holder and is engaged by a bearing portion 32 of the cover to such extent that with the aid of the rear wall of the container, raising of the cover above the front wall of the container will not effect displacement of the cover from the pin. As indicated in Figure 5, the end face of the cover may lie over the end wall of the container and is formed with a cylindrical enlargement concentric to the pin 31 and arranged to seat in a recess or bearing 34 in the upper edge of said wall. With this design of cover and connection, no breaks will appear across the top of the holder, thereby not only affording a most effective closure but making it easy to keep the cover clean. Further, such connection will permit the normal raising of the cover without any portion thereof moving back of the rear side of the container.

While I have described the holder as being entirely of porcelain and of but two parts, it will be understood that it may be made of other materials and more parts, the porcelain being desirable as it enables the holder to be cast and also to be readily washed or cleaned on both inside or outside when in use.

I claim:

1. In a tooth-brush holder of the character described, a container comprising a receptacle at the bottom thereof, a plurality of separate vertical compartments thereover, a partition separating said compartments and receptacle arranged to have a brush supported thereon and having an opening adjacent the bottom of each compartment communicating each compartment with said receptacle, said container having an opening adjacent the top of each compartment for the insertion or withdrawal of the brush, air intake means to said receptacle opening therefrom directly to the exterior of the container air outlet means adjacent the top of each compartment, and a common closure for said second openings and said outlet means arranged to overlie substantially the entire container.

2. A tooth brush holder comprising, a casing having an elongated compartment for housing a tooth brush, a receptacle for antiseptic or the like under said compartment and communicating therewith, and means for circulating air from without the casing and into and through said receptacle and compartment including air inlet and discharge openings in said casing adjacent the opposite ends thereof communicating respectively said receptacle and compartment with the atmosphere, said inlet opening being without said brush compartment and leading from the exterior of the device directly to said receptacle.

3. In a holder of the character described, a container comprising a receptacle for antiseptics or the like, a brush compartment over said container and in communication therewith, said compartment having an opening at the top thereof for the insertion and withdrawal of a tooth brush, a side wall of said compartment being formed with a cutaway portion contiguous with said opening and a closure for said opening defining with said cutaway portion a discharge passage from said compartment, said container being formed with an inlet passage to the atmosphere to establish a circulation of air through said container, into said compartment and from said discharge passage.

4. In a holder of the character described, a container comprising a receptacle for antiseptics or the like a brush compartment over said container and in communication therewith, said compartment having an opening at the top thereof for the insertion and withdrawal of a tooth brush, a side wall of said compartment being formed with a cutaway portion contiguous with said opening and a closure for said opening and covering said cutaway portion but defining therewith a discharge passage from said compartment, said container being formed with an inlet passage to the atmosphere to establish a circulation of air through said container, into said compartment and from said discharge passage.

5. A tooth brush holder comprising, a casing defining a tooth brush compartment, an antiseptic receptacle under said compartment, air passage means connecting the top of said receptacle and the bottom of said compartment, air discharge means for said compartment, and air inlet means for said receptacle and leading exclusively thereto at the top thereof at a point spaced from said first passage whereby the en-

tering air may pass over the antiseptic in the receptacle and into said compartment.

6. In a holder of the character described, a container for antiseptic or the like, a brush compartment positioned over said container and having an opening at the top thereof for the insertion and withdrawal of a tooth brush, air passage means connecting said container and compartment, air inlet means for said container, and a closure for said compartment opening and providing with one of the compartment side walls an air discharge passage from said compartment.

CHARLOTTE W. LA POSEA.