H. GILES.

TOOTHBRUSH HOLDER.

APPLICATION FILED MAY 28, 1921.

1,409,701. Patented Mar. 14, 1922.

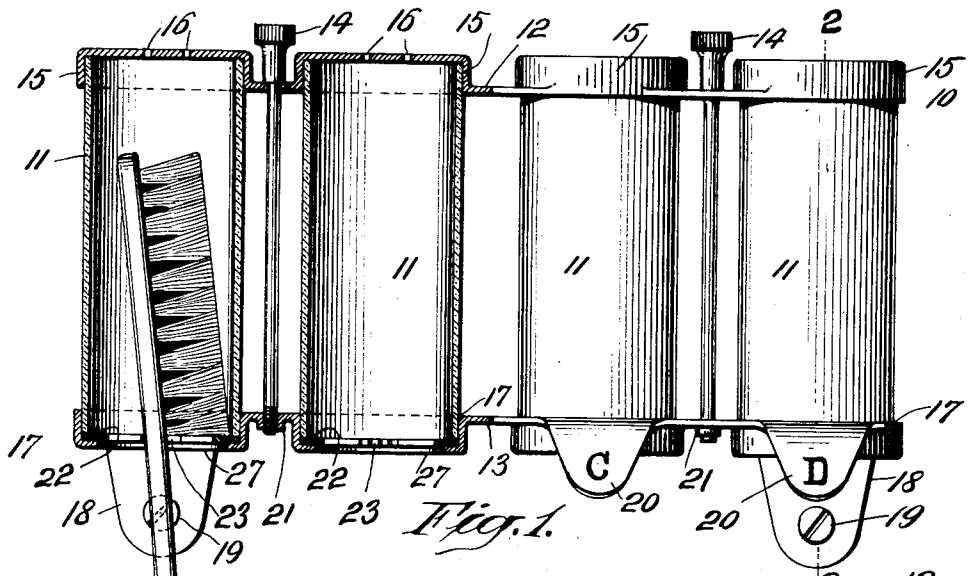


Fig. 1.

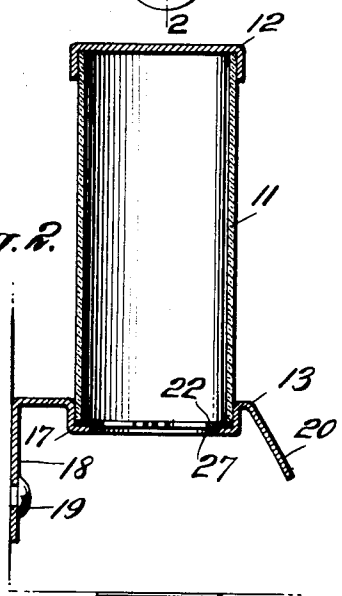


Fig. 2.

Fig. 4.

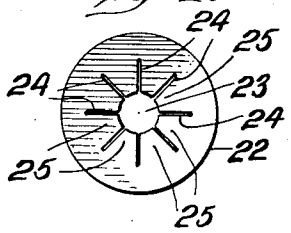
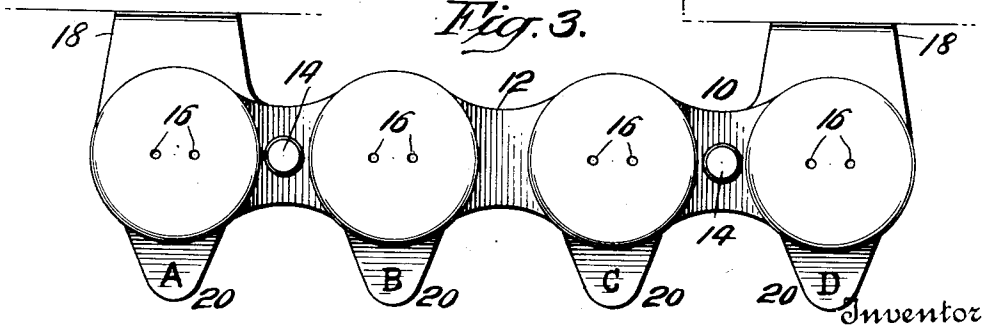


Fig. 3.



Inventor:
HARVEY GILES.

By his Attorney,
Charles C. Gill.

UNITED STATES PATENT OFFICE.

HARVEY GILES, OF BROOKLYN, NEW YORK, ASSIGNOR OF ONE-HALF TO ARTHUR C. ROBERTS, OF WOODHAVEN, NEW YORK.

TOOTHBRUSH HOLDER.

1,409,701. Specification of Letters Patent. Patented Mar. 14, 1922.

Application filed May 28, 1921. Serial No. 473,442.

To all whom it may concern:

Be it known that I, HARVEY GILES, a citizen of the United States, and a resident of Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Toothbrush Holders, of which the following is a specification.

The invention resides in a tooth brush fixture of a character to be attached to the wall of a bath or other room and used for holding individual tooth brushes, with the bristles enclosed in compartments or holders of the fixture so that they may be protected against dust and the like and at the same time be capable of inspection through the walls of the compartments. The fixture may be equipped with any suitable number of the compartments or holders for indivdual tooth brushes, and preferably the frame of the fixture will be initialed at its several compartments so that the compartments may be recognized as containing the individual tooth brushes of the members of a family. The compartments for the individual brushes are preferably each in one integral glass tube vertically mounted, and the frame for the glass tubes comprises an upper plate having recesses to receive the upper ends of the tubes and a lower plate to receive the lower ends of the tubes, and these two plates are preferably detachably held in position by screw-rods connecting the upper and lower plates and capable, when occasion so requires, of being removed to permit a separation of the tubes and the upper and lower plates from one another. In the lower end of each tube is provided an opening up through which the head end of a tooth brush may be thrust and the walls around which will extend below the bristles and therefore serve as a support for the head of the brush within the holder. At the lower end of each tube and providing an opening for admitting the brush to the tube and its withdrawal therefrom, is preferably applied a rubber disk having a central opening through it and a series of radial slits extending outwardly from said opening and forming a circular series of spring lips which will yield upwardly under the upward pressure of the end of the brush against the same, so as to admit the brush to the holder, and yield downwardly under the pressure of the brush when the brush is drawn from the holder for use.

The object of my invention is to provide an attractive and comparatively inexpensive brush holder or appliance for bath rooms and like places and to include in the holder individual compartments for the tooth brushes of the individual members of a family.

The invention will be fully understood from the detailed description hereinafter presented, reference being had to the accompanying drawings, in which:

Fig. 1 is a front elevation, partly in central vertical section, of a tooth brush holder constructed in accordance with and embodying the invention, a tooth brush being shown in position in one of the compartments of the holder;

Fig. 2 is a vertical section through a portion of the same taken on the dotted line 2—2 of Fig. 1;

Fig. 3 is a top or plan view of the same, and

Fig. 4 is a plan view of the rubber disk which I apply at the lower end of each compartment of the holder.

In the drawings 10 designates the holder as a whole, 11 the individual compartments of said holder to receive the individual tooth brushes, 12 an upper plate constituting the upper section of the frame of the holder, 13 a lower plate constituting the lower member of the frame of the holder, and 14 screw rods which I employ for connecting the upper and lower plates 12, 13 together and binding them against the upper and lower ends of the holders or compartments 11.

The compartments 11 correspond with one another and are arranged in horizontal alignment, each holder being set vertically and preferably formed of a section of glass tubing cut off evenly at both ends. The glass tubing for the compartments 11 is transparent and of suitable size to properly receive the head of an individual tooth brush.

The upper plate 12 will preferably be formed in one intergral piece of aluminum, and said plate is formed with a series of corresponding pockets 15 to snugly receive and fit upon the upper ends of the tubular compartments or holders 11, and said plate 12 above each compartment 11 will be apertured, as at 16, for the purpose of venting the compartment.

The lower plate 13 corresponds in many respects with the upper plate 12, and it has

a series of pockets or recesses 17 to snugly receive and encompass the lower ends of the tubular compartments 11. The plate 13 adjacent to each end thereof is formed with a bracket member 18 adapted to receive a screw 19 by which the holder may be secured to a wall. The brackets 18 are of right-angular formation and serve not only to engage the wall, as shown in Fig. 2, but to space the holders or compartments 11 from the wall. The plate 13 at the front of each holder or compartment 11 is formed with a downwardly and outwardly inclined lip 20 which will preferably bear an initial or other index by which the several members of a family may recognize the particular holders and brushes respectively belonging to them, the purpose being that an individual shall at all times associate his tooth brush with some definite one of the individual holders of the device. The initials shown on the lips 20 are the letters "A," "B," "C," "D," but these letters must be understood as merely indexes or indicators and numbers or other devices may be employed in lieu of the letters. The individual members of a family may have their own initials applied on the lips 20, if desired. The plate 13 having the pockets or recesses 17, brackets 18 and lips 20, is preferably in one integral piece of aluminum, and said plate 20 is formed between the pairs of holders or compartments 11 with downwardly forced internally threaded sleeves 21 to receive the lower threaded ends of the rods 14, as shown in Fig. 1.

Within the pockets 17 of the plate 13 I locate rubber disks 22, these disks snugly fitting the base of the pockets 17 and serving to receive the lower edges of the glass tubular holders 11. The disks 22 serve as packing for the lower edges of the holders 11 when, by means of the rods 14, the plate 13 is drawn upwardly to bind the holders between the plates 12 and 13, and the disks 22 are of special construction in that they contain a central opening 23 and a circular series of slits 24 which radiate outwardly from the central opening 23 and form a series of yieldable lips 25 which permit the head of the brush 26 to be pushed upwardly into the holder, and thereafter to support said head within the holder, as illustrated in Fig. 1. When the head of the brush is pushed upwardly against the central portions of the disk 22, the lips 25 yield or bend upwardly so as to allow the head of the brush to pass upwardly to within the holder 11, and after the brush has been pushed upwardly, said lips 25 return to their horizontal position and by their then reducing the size of the opening through the disk, serve to suspend the brush with its head within the holder and its handle hanging downwardly from the holder. When it is desired to withdraw the brush from the holder, the handle of the brush will be grasped and pulled downwardly and at this time the lips 25 of the disk 22 will yield or bend downwardly and permit the withdrawal of the head of the brush from the holder, said lips 25 thereafter springing back to their normal position partly closing the lower end of the holder. The plate 13 at the base of the pockets 17, thereof, is cut out or apertured, as at 27, so as to provide openings of proper size below the disks 22 to permit the insertion of the head of the brush into the holders and the withdrawal of said head therefrom.

The holder comprises the tubular compartments 11, upper and lower plates 12, 13, screw rods 14, and disks 22, and hence the holder is composed of but few and very easily assembled parts, the assembling of the parts of the holder not requiring the use of any rivets or any fastening means other than the screw rods 14. I provide screw-rods 14 for binding the parts of the holder together so that whenever it may be desired the parts of the holder may be separated from one another, this permitting the cleansing of the interior of the tubular holders or compartments 11 and the insertion of a new disk 22 at the base of any one of the compartments, should a disk require to be replaced. The holder as constructed by me is light in weight and neat and attractive in appearance and affords a separate and closed compartment for the individual tooth brushes of the members of a family. I illustrate the holder as composed of four of the compartments 11, but obviously my invention is not limited to the use of four tubular compartments 11 since the upper and lower plates 12, 13 may be constituted by either being lengthened or shortened, to support any special number of the tubular holders or compartments. If I should desire a holder having only two of the individual compartments 11, the plates 12, 13 would be shortened to receive two of the holders or compartments 11, say the two left hand holders of Fig. 1, and under such condition I would apply the right hand bracket 18 to the then right hand one of the two remaining compartments so that the holder might be secured to the wall by at least two screws 19. The one screw-rod 14 located between two individual holders 11 would serve to secure the upper and lower plates together and against the glass tubes in the manner shown at the left hand side of Fig. 1. I may construct my holder of any number of the compartments 11, it being obvious that the upper and lower plates 12, 13 must be shaped, either lengthened or shortened, in accordance with the number of the compartments 11 I may desire to provide in the holder. The upper plate 12 is cupped or pressed upwardly to form the individual

pockets 15 and the lower plate 13 is cupped or pressed downwardly to form the individual pockets 17, and hence the plates 12, 13 between said pockets set inwardly between the individual holders 11, and this adds to the strength and appearance of said plates and permits the internally threaded sleeves 21 and the inner ends of the heads on the rods 14 to be substantially concealed, so that said parts do not form objectionable projections.

When the brush-head is pushed up through the opening at the lower end of an individual holder 11, the bristles of the brush become flexed against the sides of the opening and said head may thus be forced into the holder, said opening being of less diameter than the thickness of the head when the bristles are in normal unflexed condition. The lips 25 are not absolutely essential but they are of great advantage in permitting me to have quite a small opening at the bottom of a holder 11 and in nearly closing the bottom of the holder about the shank of the brush-head after said head has been introduced into the holder.

What I claim as my invention and desire to secure by Letters Patent, is:

1. A tooth-brush fixture of the character described, comprising a vertical tubular holder for the head of an individual tooth brush, an upper plate having a pocket to snugly receive and encompass the upper end of said holder, a lower plate having a pocket to receive and encompass the lower end of said holder, means for connecting said plates and binding them against the ends of said holder, and means for securing the fixture to a wall with the holder spaced therefrom, an opening being provided at the lower end of said holder to admit the head of the brush thereto and which opening is less in diameter than the thickness of said head when the bristles are in normal unflexed condition.

2. A tooth brush fixture of the character described, comprising a plurality of vertical tubular holders for the heads of individual tooth brushes, an upper plate having a series of pockets to snugly receive and encompass the upper ends of said holders, a lower plate having a series of pockets to receive and encompass the lower ends of said holders, means for connecting said plates and binding them against the ends of said holders, and means for securing the fixture to a wall with the holders spaced therefrom, an opening being provided at the lower end of each of said holders to admit the head of a brush thereto and which opening is less in diameter than the thickness of said head when the bristles are in normal unflexed condition, and said lower plate being formed at each holder with a forward lip presenting an exposed surface to receive an index character as a guide to the users of the fixture.

3. A tooth brush fixture of the character described, comprising a plurality of vertical tubular holders for the heads of individual tooth brushes, an upper plate having a series of pockets to snugly receive and encompass the upper ends of said holders, a lower plate having a series of pockets to receive and encompass the lower ends of said holders, a disk seated in each pocket of said lower plate below the holder therein having an opening and upwardly and downwardly yielding lips to admit the brush head to the holder, support the same therein and permit the downward withdrawal of the brush head from the holder, means for connecting said plates and binding them against the ends of said holders and means for securing the fixture to a wall, said lower plate having projecting lips for the several holders bearing index characters serving as guides to the users of the fixture.

Signed at New York city, in the county of New York and State of New York, this 20th day of May, A. D. 1921.

HARVEY GILES.