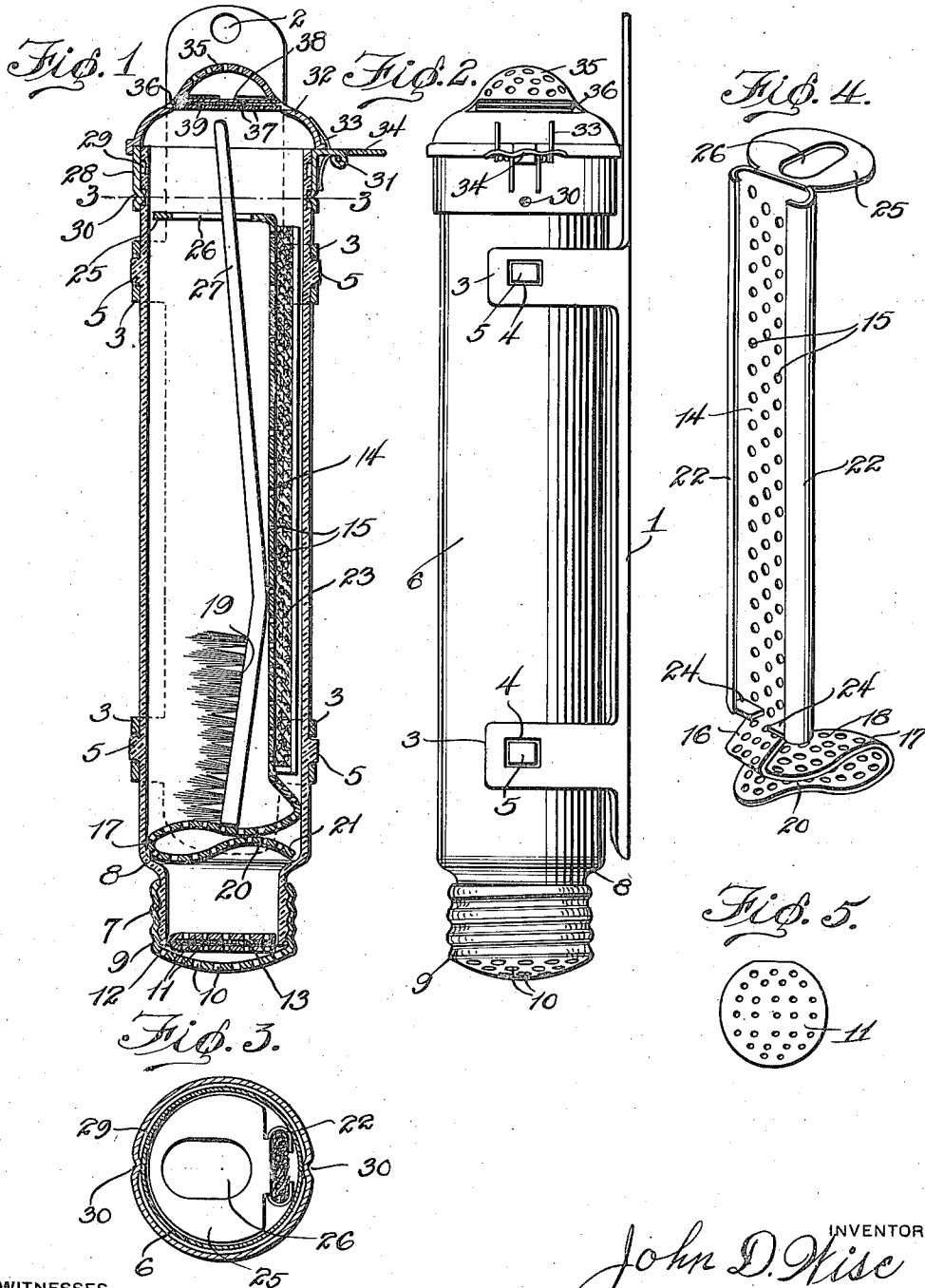


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 ANTISEPTIC TOOTH BRUSH HOLDER AND STERILIZER.
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Patented May 1, 1917.



WITNESSES

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, JOHN D. WISE, a citizen of the United States, residing at Jackson, in the county of Madison and State of Tennessee, have invented certain new and useful Improvements in Antiseptic Tooth-Brush Holders and Sterilizers, of which the following is a specification.

This invention has relation to certain new and useful improvements in antiseptic tooth-brush holders and sterilizers, and has for its primary object, the provision of holders of this character which will be of simple construction, as well as highly efficient and inexpensive.

The invention has for another object, the provision of a holder of this character in which may be supported a tooth-brush resting against a main disinfectant holder, while the upper and lower disinfectant holders are secured in the opposite ends of the transparent case provided for the brush.

The invention has for another object, the provision of an antiseptic tooth-brush holder and sterilizer of the above-stated character which will be of such construction that the brush within the case will be exposed to the fumes from a disinfecting and sterilizing agent with which absorbent members within the case are saturated.

The invention has for a further object, the provision of a holder of the above-stated character which will be of such construction as to provide for a continual circulation of air through the case, thereby assuring proper treatment of the brush by the antiseptic and disinfecting fumes.

A further object of the invention resides in the provision of an improved and novel form of main disinfectant holder which also serves to support the tooth-brush in proper position within the transparent case.

A still further object of the invention resides in the provision of novel upper and lower disinfectant holding members and improved and novel means for supporting the case in upright position.

With the above and other objects in view, the invention resides in the novel construction, combination, and arrangement of parts as hereinafter set forth in the specification, pointed out in the claims, and shown in the drawings, in which—

Figure 1 is a vertical transverse section through the complete device with the tooth-brush in position within the case;

Fig. 2 is a side elevation of the complete device;

Fig. 3 is a transverse horizontal section on the plane of line 3—3 of Fig. 1;

Fig. 4 is a perspective view of the main disinfectant holder removed;

Fig. 5 is a plan view of the lower disinfectant holder removed.

Referring to the drawings in which similar reference characters designate corresponding parts throughout the several views, 1 designates the supporting plate which may be readily secured upon a wall or other stationary support by a suitable securing member engaged through the opening 2 of the upper end thereof. The supporting plate 1 is provided with pairs of upper and lower spring arms 3 which are provided in their outer ends with the perforations 4 to receive the opposite lugs 5 formed on the outer face of the case 6 adjacent the upper and lower ends thereof. The supporting plate 1 may be curved transversely, as shown in Fig. 2, from its lower end to the upper spring arms 3 or may be of any other suitable shape desired. The supporting plate 1 is preferably of such length, however, as to permit the upper end thereof to extend above the case 6.

The case 6 is preferably formed of glass or some other transparent material and the lower end 7 thereof is preferably reduced in diameter to form the interior shoulder 8, the purpose of which will presently be apparent. The reduced end 7 is also preferably threaded exteriorly, to receive the screw cap 9, the end of which is provided with a plurality of perforations 10. The screw cap 9 also serves to support the double perforated disk shaped lower disinfectant holder 11, the sections of which are connected at one side, as shown at 12. Within the double disk-shaped lower disinfectant holder 11 is positioned a perforate absorbent member 13 formed of felt or other suitable material and saturated with a suitable disinfecting and sterilizing agent. The member 13 is preferably placed in such position that its perforations register with the perforations of the lower disinfectant holder 11 and it will be understood that the member 11 is placed in the screw cap 9 before the latter is screwed in position, the member 11 resting upon the screw cap 9 as clearly shown in Fig. 1. It will also be noted by referring to this figure

that the member 11 is flat, while the end of the screw cap 9 is of concavo-convex form, thereby providing an air space beneath the member 11, making it possible for air to readily pass upwardly through the perforations 10 and the perforations of the holder 11 and member 13.

Within the body of the case 6 is positioned the main disinfectant holder which consists of a vertical body plate 14 formed of metal or other suitable material and provided with the perforations 15 throughout its length. The lower end of the plate 14 is bent at an angle, as shown at 16, until it engages one side of the case 6 and is then bent back and extended across to the other side of the case 6, as shown at 17, the portion beneath the portions 16 and 17 being reversely curved, as shown at 18, to provide a suitable support for the end of the tooth-brush 19 positioned in the case 6. The plate 14 after engaging the second side of the case 6 is bent back upon itself and extended upwardly until it engages the portion 18 of said plate 14, as shown at 20, and then again bent downwardly as shown at 21, the portions 17 and 21 resting upon the interior shoulder 8. The longitudinal or vertical edges of the main portion of the plate 14 are bent back to form the side flanges 22 to hold an absorbent member 23 against the rear face of the main portion of the plate 14 and the lower ends of the side flanges 22 are bent inwardly to form the bottom flanges 24 to limit downward movement of the absorbent member 23 within the side flanges 22. It will be understood that the absorbent member 23 may be formed of felt or other suitable material, and is saturated with a suitable disinfecting and sterilizing agent, the fumes from which may readily pass through the perforations 15. The plate 14 has a horizontal extension 25 projecting from its upper end and extending across the interior of the case 6 and provided with a suitable elongated opening 26 through which the handle 27 of the tooth-brush 19 extends, the extension 25 serving to retain the tooth-brush 19 in proper position.

Mounted upon the upper end of the case 6 is a cover supporting ring 28 which may be readily secured in position by pressing portions thereof into one of the annular grooves 29 in the outer face of the case 6, as shown at 30. Hinged in a suitable manner upon the ring 28, as shown at 31, is the cover 32 which is resiliently retained in closed position by a suitable spring 33 to prevent air from passing between the edge of said cover 32 and the upper end of the case 6. The cover 32 is provided with a suitable handle 34, by means of which it may be readily swung to open position upon its hinge 31, to permit the tooth-brush 19

to be withdrawn or placed in position. The cover 32 has a perforated dome 35 and is provided with a suitable slot 36 below said dome through which a double disinfectant holder 37 may be inserted or removed, the holder 37 being provided with a central perforation 38 and having secured therein a central perforated absorbent member 39 saturated with a suitable disinfecting and sterilizing agent. From the foregoing, it will be readily seen that a continual circulation of air through the case 6 will be provided for, and, as the air passes through the case 6, it will mix with the vapors or gases from the saturated absorbent members held in the opposite ends and main portion of the case 6, the tooth-brush being at all times, while within the case 6, in the path of the vapors or gases thereby subjecting the brush to a continuous and thorough disinfecting and sterilizing treatment, thoroughly cleansing the brush and destroying or rendering harmless all germs upon the same.

While I have shown and described the present device as a disinfecting and sterilizing holder for tooth-brushes, it will be understood that it may also be employed for holding and sterilizing and disinfecting various forms of brushes and other articles by slightly altering the construction of the various parts of the device. It will also be understood that the sterilizing and disinfecting agent with which the felt or absorbing members are saturated as curative properties will serve to treat the gums during use of the brush.

While the preferred embodiments of the invention have been shown and described, it will be understood that minor changes in the details of construction, and arrangement of parts may be resorted to within the scope of the appended claims without departing from the spirit of the invention or sacrificing any of the advantages of the same.

What is claimed is:

1. A device of the class described comprising a brush case, a longitudinal disinfectant holder within said case, the spaced ends of said disinfectant holder being formed to support opposite ends of a brush within said case, perforated end members for said case, and supporting means for said case.

2. A device of the class described comprising a case, a brush support within the bottom of said case, an upward extension from said support serving to carry a saturated member longitudinally in the body of said case, perforated end members for said case, perforated disinfectant holders positioned in said perforated end members, and means for supporting said case in upright position.

3. A device of the class described comprising a case, a perforated cap threaded upon one end of said case, a disinfectant holder

extending longitudinally within said case, a brush support integral with one end of said holder, a perforated hinged cover air-tight upon the opposite end of said case, perforated disinfectant holders carried by said cap and said cover, and means for supporting said case.

4. In a tooth brush-holder, a receptacle having closures mounted upon its ends, a brush supporting member mounted therein formed from a length of metal having one end thereof bent at right angles and engaged with the side of the receptacle, the opposite end of the length of metal being also bent at right angles and provided with an opening adapted to accommodate the handle of the tooth brush, the longitudinal edges of the length being bent upon itself and extended toward each other and a strip of absorbent

material engaged in the bent longitudinal edges.

5. In a holder of the character described, a receptacle, a closure mounted on each end thereof having openings therein to permit the passage of air, a brush holder mounted in the receptacle and extending longitudinally thereof, and formed from a length of metal having its ends bent at right angles to engage and support a tooth brush, and means for supporting a disinfectant in the receptacle.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN D. WISE.

Witnesses:

W. F. NEILL,

W. H. CAMWELL.