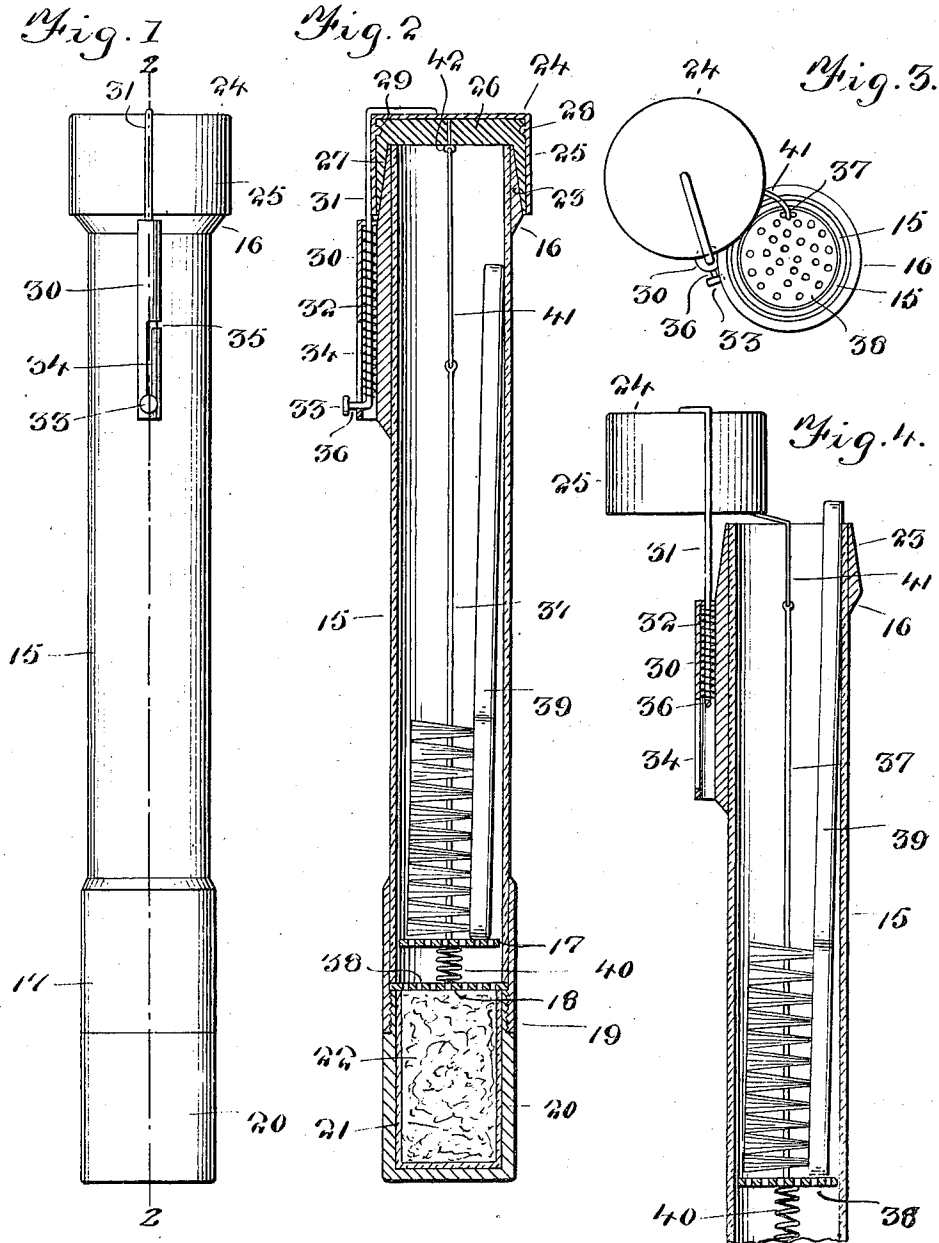


F. C. LEYDEN.
STERILIZING RECEPTACLE FOR TOOTH BRUSHES.
APPLICATION FILED AUG. 18, 1915.

1,201,207.

Patented Oct. 10, 1916.

2 SHEETS—SHEET 1.



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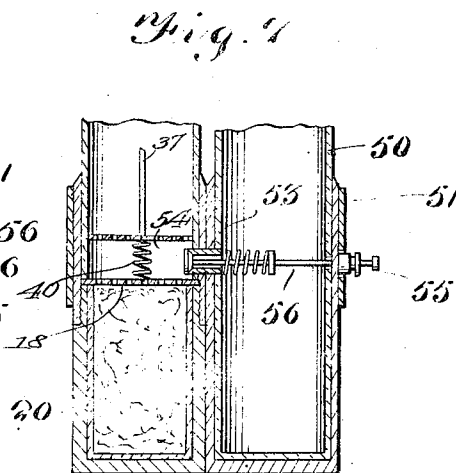
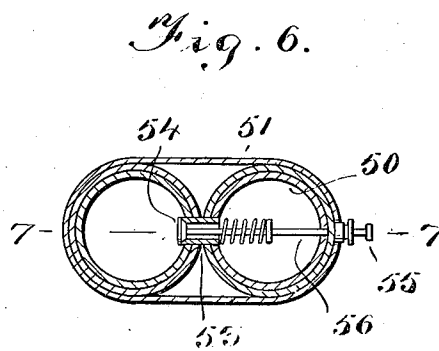
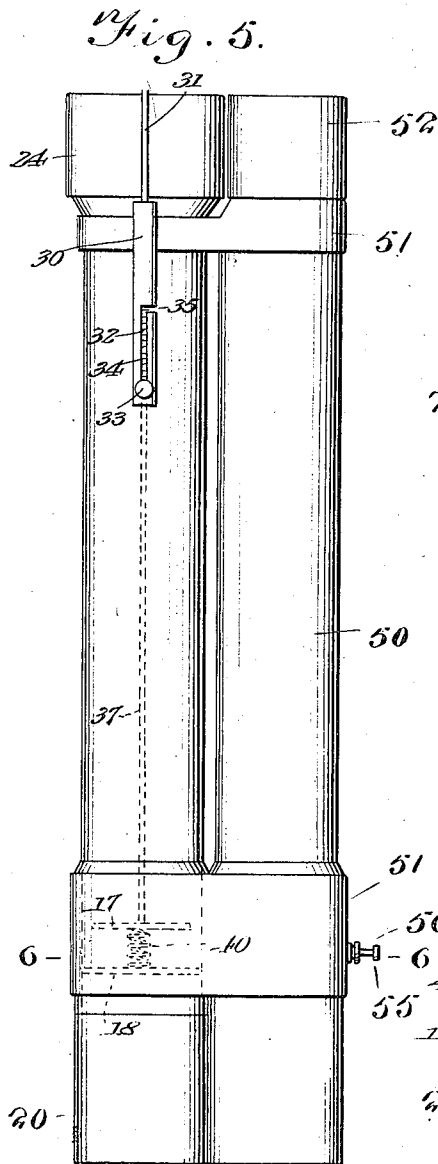
Attorney

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2 SHEETS—SHEET 2.



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UNITED STATES PATENT OFFICE.

FRANK C. LEYDEN, OF ANNISTON, ALABAMA.

STERILIZING-RECEPTACLE FOR TOOTH-BRUSHES.

1,201,207.

Specification of Letters Patent.

Patented Oct. 10, 1916.

Application filed August 18, 1915. Serial No. 46,123.

To all whom it may concern:

Be it known that I, FRANK C. LEYDEN, a citizen of the United States, residing at Anniston, in the county of Calhoun and State of Alabama, have invented new and useful Improvements in Sterilizing-Receptacles for Tooth-Brushes, of which the following is a specification.

This invention relates to an improved sterilizing receptacle for tooth brushes and the like.

The invention has for its object to produce a device of this class which will be simple in construction and in which the tooth brush will be thoroughly preserved against contamination from outside sources.

A further object of the invention is to produce a sterilizing receptacle in which a brush support is supported for vertical movement by a flexible element connected with a swinging cover so that by the act of throwing the cover to an open position, the handle of the tooth brush will be partly projected above the upper edge or rim of the receptacle to enable it to be conveniently grasped.

With these and other ends in view which will readily appear as the nature of the invention is better understood, the same consists in the improved construction and novel arrangement and combination of parts which will be hereinafter fully described and particularly pointed out in the claims.

In the accompanying drawing has been illustrated a simple and preferred form of the invention, it being, however, understood that no limitation is necessarily made to the precise structural details therein exhibited, but that changes, alterations and modifications within the scope of the claims may be resorted to when desired.

In the drawings:—Figure 1 is a view in rear elevation of a device constructed in accordance with the invention. Fig. 2 is a sectional view taken on the line 2—2 in Fig. 1. Fig. 3 is a top plan view showing the cap swung to one side with respect to the body of the receptacle. Fig. 4 is a sectional detail view of the upper portion of the device, similar to Fig. 2, showing the cap lifted and swung to one side to move the brush support in an upward direction. Fig. 5 is a side elevation illustrating a modified form of the invention. Fig. 6 is a sectional detail view on the line 6—6 in Fig. 5. Fig. 7 is a

sectional view taken on the line 7—7 in Fig. 6.

Corresponding parts in the several figures are denoted by like characters of reference.

The body of the improved receptacle consists of a tube 15 preferably of glass or other suitable transparent material and having at its upper and lower ends cylindrical collars 16, 17 which may be cemented or otherwise secured on the tube. The bottom collar 17 extends below the bottom edge of the tube 15, and it supports a perforated bottom member 18 which latter abuts on the lower edge of the tube 15. That portion of the collar 17 which extends below the bottom member 18 constitutes an annular flange 19 which is threadedly or otherwise connected with a container 20, made preferably of metal and having a lining 21 which may consist of a separate cup or vessel of glass, porcelain or other appropriate material. It should be understood, however, that the lining of the container 20 may consist of a coating of vitreous or other suitable substance which may not be injuriously affected by such disinfecting and sterilizing materials as may be used. With regard to the nature of this material, it may be stated that no limitation is intended, but that formaldehyde gas, sterilizing or disinfecting material in solid form or any desired liquid disinfecting material may be employed. If a liquid is used, the container may be partly filled with cotton or other substance, indicated at 22, which may be saturated with such sterilizing agent.

The collar 16 at the upper end of the tube 15 is exteriorly beveled, as seen at 23, and a cap 24 is provided having an annular flange 25 within which is seated a washer 26 of rubber or similar material, such washer having an internally beveled flange 27 adapted to engage the beveled outer face of the collar 16 to form a tightly fitting closure. The flange 25 of the cap has been shown as being provided with a rib 28 engaging a groove 29 in the washer which will thereby be retained in position. The rearward portion of the collar 16 supports a tube 30 wherein is seated a rod or pintle 31, the upper end of which is connected with the cap 24 which is thereby supported. The tube 30 also contains a spring 32 which is coiled about the pintle 31 and the tension of which is exerted downwardly on said pintle, thereby keeping the

cap securely seated when in adjusted position. The pintle 31 is provided with a thumb piece or handle 33 projecting through a slot 34 in the tube 30, thereby enabling the cap to be moved in an upward direction by pressure on the thumb piece. At the upper end of the slot 32 is a lateral notch 35 adapted to receive the shank 36 of the thumb piece, thereby permitting the pintle to be swung about its axis and thus enabling the cap to be moved laterally to an unobstructing position with respect to the receptacle.

The tube 15 contains a brush support consisting of a rod 37 having at its lower end a perforated foot piece 38 on which the tooth brush 39 may be supported. Secured on the underside of the foot piece 29 and extending downwardly therefrom is a coiled spring 40 adapted to contact with the bottom member 18, thus constituting a buffer. The upper end of the rod 37 is connected by a flexible element 41 with an eye member 42 associated with the cap 24.

In the operation of this device, the sterilizing material is placed in the container provided for the purpose, the latter being connected with the collar at the lower end of the tube 16. By pushing the thumb piece 33 in an upward direction against the tension of the spring 32 the cap 24 will be lifted until the flange 25 clears the top of the tube, after which by pressing the thumb piece to cause the shank thereof to enter the notch 35, the pintle 31 will be swung about its axis, thus swinging the cap clear of the tube. By the upward movement of the cap, the brush support will be lifted, as will be readily understood, and when the cap is swung or moved laterally, the tension exerted on the flexible member 41 will tend to move the brush support still farther in an upward direction until the end of the handle is projected upwardly above the tube, where it may be readily seized permitting the brush to be moved. After use, the brush is restored to its position within the tube where, by restoring the cap to its obstructing position, it will be lowered until the buffer spring of the foot piece 38 abuts on the perforated bottom member 18. This will provide for the farther downward movement of the brush support if this should be rendered necessary by the length of the brush handle. It will, of course, be understood that the parts of the receptacle are to be properly proportioned with reference to a tooth brush of ordinary dimensions.

When the disinfecting and sterilizing material employed is in liquid form, such as liquid formaldehyde, it is desirable, in order to avoid frequent refilling and handling of the liquid, to employ a special construction, as illustrated in Figs. 5, 6 and 7, under which there is combined with the device

a receptacle or container of ample capacity to hold a supply of liquid disinfectant sufficient to last for a long period. Under this modification a cylindrical container 50 is provided, the same being practically co-extensive with the tooth brush receptacle and the container 20 connected therewith, said container 50 being connected with the sterilizing device by means of the hoops or bands 51 whereby it is properly supported. The container 50 has a screw cap 52 to enable it to be filled, said cap fitting tightly so as to prevent leakage. The lower end portion of the container 50 which abuts on the receptacle 20 is connected with the latter by means of a duct or nipple 53 which may be obstructed by a spring actuated valve 54 having a button or thumb piece 55 at one end of its stem 56 which projects through the side wall of the container 50, thus enabling the valve to be moved against the tension of the actuating spring 57 to permit a portion of the liquid contents of the container 50 to pass to the receptacle 20 which may be loosely packed with absorbent material of any kind. To prevent leakage around the valve stem 56 any well known means may be resorted to, such as an ordinary packing device, but it is not deemed necessary to particularly illustrate the same. It will be seen that when this construction is resorted to a considerable quantity of liquid disinfecting and sterilizing material may be kept in a convenient manner for instant use.

While the invention has been described as a tooth brush receptacle, it is to be understood that it may be effectively employed as a receptacle for other objects such as dentists' and surgeons' tools and the like. Having thus described the invention, what is claimed as new, is:—

1. In a sterilizing device, a receptacle having a perforated bottom and a container supported below the same, a supporting member within the receptacle comprising a rod and a perforated foot piece connected therewith, a spring interposed between the foot piece and the bottom of the receptacle, a movably supported cap, and a flexible connection between the cap and the supporting member.

2. In a sterilizing device, a receptacle, a supporting member within the same, a collar at the upper end of the receptacle having a beveled portion, a flanged cap having a washer provided with a beveled flange to engage the beveled portion of the collar, a tube connected with the collar and having a slot provided with a laterally extending notch, a pintle connected with the cap and extending within the tube, a thumb piece extending through the slot of the tube and having a shank, a spring within the tube exerting downward tension on the pintle

to maintain the cap in seated position, and a flexible connection between the cap and the supporting member within the receptacle.

- 8 3. In a sterilizing device, a receptacle for the article to be sterilized, a container for the sterilizing material, a perforated partition separating the two, a container constituting a source of supply for liquid sterilizing material, a duct through which said supply container communicates with the first mentioned container, and a spring actuated valve constituting a closure for said duct.
- 10 4. A sterilizing device comprising a receptacle for the article to be sterilized and

a container for sterilizing material communicating with said receptacle through a perforated partition, in combination with a tubular container connected with and supported on said device, supporting hoops or bands, a duct establishing communication between the two containers, and a manually operable spring actuated valve constituting a closure for said duct.

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

FRANK C. LEYDEN.

Witnesses:

R. L. HOUSE,
GEO. H. LEYDEN.