M. GALLAS.

TOOTH CLEANING INSTRUMENT.

APPLICATION FILED OCT. 3, 1914.

1,161,043. Patented Nov. 23, 1915.

Fig. I.

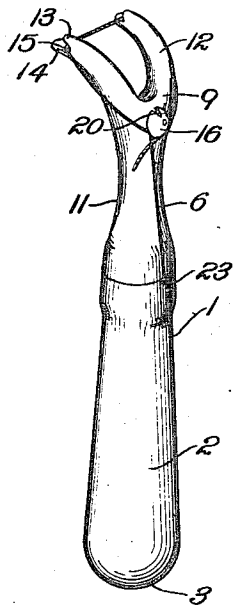


Fig. II.

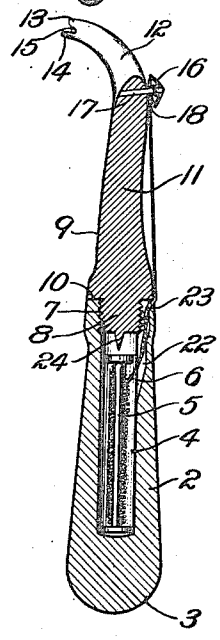


Fig. III.

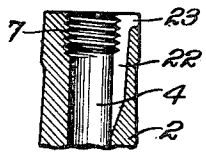


Fig. IV.

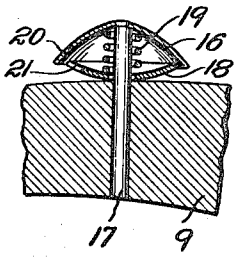
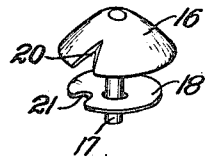


Fig. V.



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TOOTH-CLEANING INSTRUMENT.

1,161,043. Specification of Letters Patent. Patented Nov. 23, 1915.

Application filed October 3, 1914. Serial No. 864,897.

To all whom it may concern:

Be it known that I, MORRIS GALLAS, a citizen of the United States, residing at Kansas City, in the county of Jackson and State of Missouri, have invented certain new and useful Improvements in Tooth-Cleaning Instruments; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

My invention relates to tooth cleaning instruments, and more particularly to an instrument of a class having a strand threaded therein and spanning a portion thereof, for insertion between the teeth to remove foreign matter therefrom; the principal object of the invention being to provide a sanitary device of this character, having reliable means for holding the strand in proper tension, and means by which a used portion of the strand may be easily removed. In accomplishing these objects, I have provided the improved details of structure hereinafter described, and illustrated in the accompanying drawings, wherein:—

Figure I is a perspective view of a device constructed according to my invention. Fig. II is a central longitudinal section of the same. Fig. III is a central section of a portion of the handle member, showing the slotted portion through which the strand is drawn. Fig. IV is an enlarged section of the tension member. Fig. V is an enlarged perspective view of the tension member, showing the strand cutting notch.

Referring more in detail to the drawings:—1 designates a tooth cleaning device constructed according to my invention and comprising a slightly tapered handle or grip 2, having a smooth, rounded outer end 3 and a central bored chamber 4 containing a revoluble bobbin 5 on which is wound a strand of floss, or the like, 6.

The open end of the handle 2 is slightly enlarged and provided with an interiorly threaded portion 7 into which is threaded the shank 8 of a bifurcated head member 9, having a shoulder 10 which fits tightly against the handle 2 to form a tight joint between the two parts.

The head member 9 comprises a slightly curved neck portion 11 provided, at its upper end, with two forked arms 12 that are curved outwardly at an angle, as shown in Fig. I, and terminate at their outer ends in upper and lower lips 13—14, forming a notch 15 within which the strand of floss is securely held when drawn across the two arms. The lower lip 14 is slightly longer than the upper and protrudes farther out at the side than does the upper lip, in order that when the floss is threaded therein, it is caught by the outstanding lower lip and guided into the notch.

Secured on the upper side of the head member and near the junction of the two arms, is a tensioning device comprising an upper, inverted cup-like cap 16 that is riveted onto a shank 17 that is secured within the head member, and slidably mounted on the shank is a saucer-like disk 18 that is adapted for fitting within the cap 16.

Wound about the shank 17, between the cap 16 and disk 18, is a coil spring 19 that bears against the upper member and compresses the disk 18 against the head so that when a strand of floss is drawn around the shank, it is securely clamped by the disk and may be drawn tightly over the arms 12. At the outer edge of the cap 16 and disk 18, are corresponding V-shaped notches 20—21; the upper cap notch 19 having sharpened edges, so that the floss, when drawn therein, may be cut off.

In order that the floss may be easily drawn from the bobbin and threaded over the arms 12, I provide a groove 22 in the interior threaded opening of the handle member 2 and cut through at the upper edge thereof to form a small port 23 at the joint between the handle and head parts. I also provide the shank 8 of the head member, with a central, pointed pivot 24 against which the bobbin is drawn when the floss is unwound therefrom, so that the bobbin turns freely within the chamber.

In using the device, presuming the parts to be constructed as described, the bobbin is wound with floss and inserted within the bobbin chamber, and the head member is threaded onto the handle, with the end of the strand of floss threaded through the slot 22 and port 23, so that it may be drawn from the bobbin. The strand is then drawn out to the desired length and wound once around the shank 16, where it is held secure. It is then threaded over the arms 12 and

seated in the notches 15 and again wrapped on the shank 17 and held tight by the disk 18.

After using the instrument, and it is desired to remove the used part of the strand, the free end is unwound from the tensioning means and unseated from the notches and drawn tightly into the notch 20 and cut off. This leaves a portion of the strand still exposed, so that it may be drawn from the bobbin and threaded again over the arms.

It will be seen that by so constructing the device, the floss is perfectly concealed within the holder, and there are no exposed creases or grooves in which sediment may collect to render it unsanitary.

Having thus described my invention, what I claim as new therein, and desire to secure by Letters-Patent, is:

1. In a tooth cleaning device, the combination with a handle having a chamber opening through one end thereof and having interior screw threads at the open end, and having an outlet for a floss strand, of a head member removably mounted in the open end of the handle and having a point at its base end forming a pivot bearing for a bobbin, and a bobbin located in the handle chamber.

2. The combination with a body and forked head members, of a bobbin carried by the body, and a combined tension and cutting device comprising an inverted disk spaced from and rigidly mounted on one of the members, and a reversely arranged disk yieldingly movable toward and from the first-named disk; the said disks having registering notches, with the notch in the upper disk provided with cutting edges whereby a thread is severed upon being drawn into the notch, the upper disk being of greater diameter than the under disk and overhanging the edge of the same substantially as set forth.

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

MORRIS GALLAS.

Witnesses:
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LETA E. COATS.