Nov. 24, 1931. N. C. LEONARD 1,833,842

DEVICE FOR CLEANING AND POLISHING TEETH

Filed Dec. 27, 1928

Fig. 1.

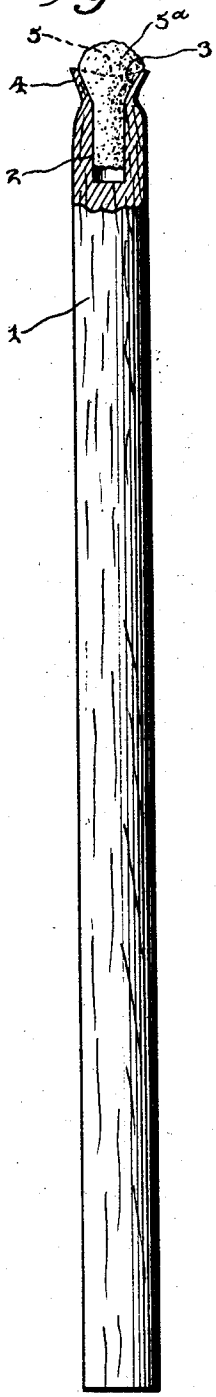


Fig. 2.



Fig. 5.

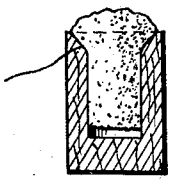


Fig. 3.

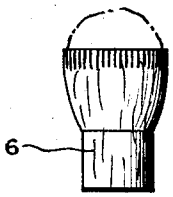


Fig. 6.

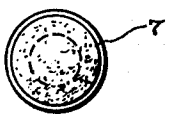
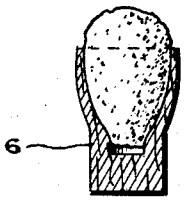


Fig. 4.



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UNITED STATES PATENT OFFICE

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DEVICE FOR CLEANING AND POLISHING TEETH

Application filed December 27, 1928. Serial No. 328,659.

This invention relates to dentistry, and more particularly to a novel instrument for use in cleaning and polishing the teeth. This instrument may be regarded as supplementary to the use of ordinary tooth brushes and tooth paste, and is to be supplied in sterile packages, as a convenient and inexpensive toilet accessary, to be used for both prophylactic and æsthetic purposes.

It might be mentioned that it is very difficult, with the usual forms of bristle tooth brushes, and the ordinary tooth paste, to prevent the formation of stains on certain areas of the teeth that the bristles do not readily reach; and that these stains and bacterial plaques, particularly near the gum margins, and around the curves at the necks, of teeth, are of very great importance from both the æsthetic and prophylactic standpoints; and these stains and plaques should be removed thoroughly and frequently.

The primary object of the invention is to provide a novel instrument, preferably formed at least at one end, of fibrous material, such as wood, and this end having a substantially bell-shaped mouth, the wall of which will function as brush bristles to conform to the contour of the tooth.

A further object is to furnish a device of this character, in which the bell-shaped mouth may be filled with a suitable abrasive agent to facilitate the polishing, as well as the cleaning of the teeth.

My invention contemplates the use of such instruments by both the profession and the laiety; and it may be made in suitable lengths to incorporate its handle with its softened bristle-like fibre end, or of shorter length to facilitate attachment to a dental engine handpiece.

With the foregoing objects outlined and with other objects in view which will appear as the description proceeds, my invention consists in the novel features hereinafter described in detail, illustrated in the accompanying drawings, and more particularly pointed out in the appended claims.

Referring to the drawings,

Fig. 1 is an elevation partly in longitudinal section, of a form of the instrument, especially suitable for the laiety, but capable of use by the dentist, either with or without the charge of abrasive material to be employed at the chair in areas that cannot be easily reached with the rotary form.

Fig. 2 is an end view of the same.

Fig. 3 is an elevation of one of the professional forms, without the abrasive material.

Fig. 4 is a vertical sectional view of the same, supplied with abrasive material.

Fig. 5 is a longitudinal sectional view of the simplest form for professional use.

Fig. 6 is an end view of the last mentioned form.

In the embodiment of the invention illustrated in Figs. 1 and 2, 1 designates a stick or handle formed of any suitable fibrous material, such as rattan or palm wood. One end of the stick is macerated so as to provide at its end, short softened bristle-like fibres, and to provide for this, the end of the stick is bored, as shown at 2, and the outer end of the bore is flared to provide a bell-shaped mouth 3. The exterior of the mouth is also flared as at 4, and the end surface of the mouth is scalloped or grooved across the axis of the stick, as at 5 to conform to the surface of a tooth.

When such device is furnished for the laiety, the cavity in the operating end is filled with some suitable sterile paste 5*a* containing a mildy abrasive agent, such as finely powdered pumice stone.

In the use of this instrument by the laiety, it would only be necessary for the user to grasp the stick, dampen the bored end with water, and apply to the tooth or teeth for the removal of stains or gelatinous plaques. During such use, the scallop 5 at the end enables the bristle-like fibres at that end to fit somewhat the contour of the tooth, and at the same time, the longer part at the sides of the scallop may extend during use, into the inter-dental spaces. Obviously, by properly manipulating the instrument, one tooth at a time may be cleaned and polished.

As before stated, the device shown in Figs. 1 to 2 may also be supplied to the profession, either with or without the charge of abrasive material, to be used at the chair to reach areas

that cannot be readily reached with the rotary form.

The embodiment of the invention illustrated in Figs. 3 and 4 is especially provided for the profession, and in this case, the stick or handle part 6 is of greatly reduced length, as it is simply to be used as a projection to enter the rotary mandrel of the dental engine or the like.

In the professional form of the invention shown in Figs. 5 and 6, the instrument is quite short, and has a bell-shaped or flared bore 7, but its outer surface is cylindrical form end to end. This is the simplest form of the invention.

As each embodiment is made of suitable fibrous material, such as palm wood, it will be apparent that the flaring of the mouth at the end of the stick will weaken the fibres at this location, and consequently, when the device is in use, the fibres, while sufficiently stiff to do their required work, will nevertheless move towards or away from one another to conform to the surface of the tooth, and this action, in combination with the polishing material, will act to effectively remove the stains and bacterial plaques.

From the foregoing it is believed that the construction, operation and advantages of the invention may be readily understood by those skilled in the art, and it is apparent that changes may be made in the details disclosed without departing from the spirit of the invention, as expressed in the appended claims.

What I claim and desire to secure by Letters Patent is:

1. An instrument of the character described, comprising a stick having a fibrous end of annular formation, the wall of the anulus being gradually tapered toward the end of the stick.

2. An instrument of the character described, comprising a short stick provided with an integral relatively soft wood fibre end portion of annular form, and containing a central cavity provided with an outwardly flared mouth, the extremity of said mouth being grooved transversely.

3. An instrument for cleaning and polishing the teeth comprising a relatively short narrow stick having an integral hollowed end of fibrous material.

In testimony whereof, I have signed this specification.

NORRIS C. LEONARD.