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J. S. FLEMING
DENTAL CLEANER FOR THE REMOVAL OF TOBACCO AND
OTHER STAINS FROM TEETH
Filed June 8, 1967

3,491,776

FIG. 1.

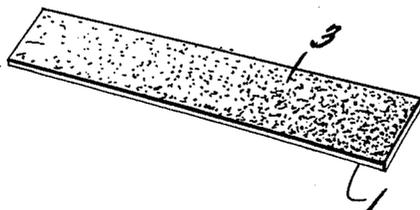


FIG. 2.

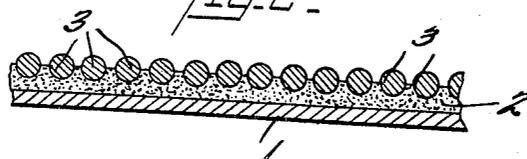


FIG. 3.

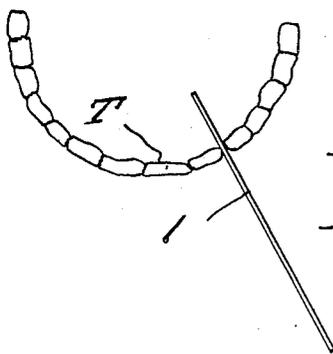


FIG. 4.

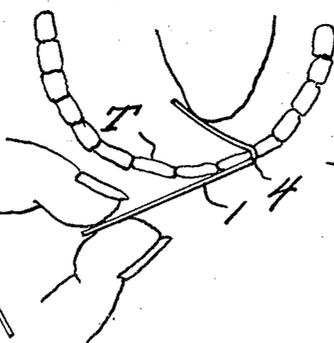


FIG. 5.

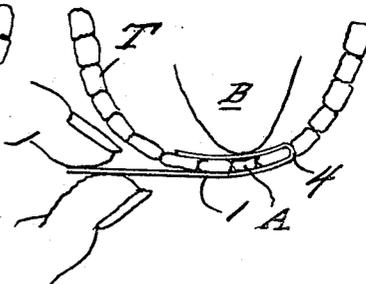
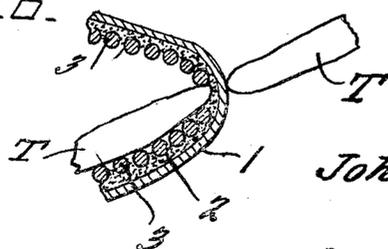


FIG. 6.



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DENTAL CLEANER FOR THE REMOVAL OF TOBACCO AND OTHER STAINS FROM TEETH
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4 Claims

ABSTRACT OF THE DISCLOSURE

A dental cleaner is disclosed which comprises a strip of paper having a thin coating of wax and a subsequent coating of abrasive particles which are at least partially imbedded in the wax coating.

This invention relates to a dental cleaner for the removal of tobacco and other stains from teeth and more particularly relates to an abrasive strip designed for insertion between adjacent teeth.

It is well known to provide abrasive strips for insertion between adjacent teeth which when passed across the surface of the teeth will remove stains from the walls thereof. However, such devices have not been entirely satisfactory, one reason being that the commercially available strips with abrasive bonded to the surface thereof are relatively thick and thus in some instances are not insertable between adjacent teeth or may only be inserted with considerable difficulty. Attempts have been made to alleviate this disadvantage by reducing the size or the amount of abrasive; but the disadvantage with this is that the abrasive is not heavy enough or present in sufficient amount to satisfactorily remove stains from the walls of the teeth.

An object of the present invention is to provide a strip-type dental cleaner having abrasive on the surface thereof which may be easily inserted between adjacent teeth and yet has a sufficient amount of large abrasive particles thereon to satisfactorily remove stains from the walls of the teeth.

A further object of the present invention is to provide a dental cleaner in strip form having abrasive thereon in which the abrasive particles are not firmly bonded in stationary positions on the surface of the strip but are capable of movement along the strip surface while retained thereon.

The present invention will now be more fully described in conjunction with the accompanying drawings.

FIGURE 1 is a plan view of the invention;

FIGURE 2 is a diagrammatic sectional view of the invention;

FIGURE 3 is a view of the present invention in its first position of application;

FIGURE 4 is a view similar to FIGURE 3 showing the invention in its second position of application;

FIGURE 5 is a view similar to FIGURE 4 of the invention in its third position of application; and

FIGURE 6 is a diagrammatic sectional view of the invention as placed between adjacent teeth.

Referring to the drawings, an elongated strip of web material 1 such as thin flexible wet strength paper has coated thereon a thin coating of wax 2 such as paraffin wax. Coated on the surface of the wax and imbedded therein is a coating 3 of dry abrasive powder. The abrasive powder is preferably zirconium silicate. A specially prepared zirconium silicate known as "Zircate" is available commercially.

Conveniently, the abrasive powder may be dusted on or deposited upon the wax coating and pressed or rolled thereinto to imbed the particles 3 as shown in FIGURE 2.

FIGURE 6 shows the abrasive strip inserted between adjacent teeth. This is accomplished easily with the present invention, since the particles or crystals 3 of the abrasive are not rigidly secured to a single position on the surface of the paper, but because of the nature of the wax coating 2 are movable within this coating. Thus, when the paper is inserted between the teeth T the abrasive particles or crystals will be forced by the adjacent teeth to either side of the line on the strip contiguous with the adjacent teeth. As the abrasive particles are moved, the wax surface of the strip is exposed which serves to lubricate the insertion of the strip between the teeth. The abrasive 3 may be said to be suspended in the wax coating 2 and thus is normally held against movement, but the abrasive will be moved by the adjacent teeth during the inserting operation.

Once the strip has been inserted as shown in FIGURE 3, it is bent transversely to form a transverse bend 4 therein to bring the abrasive surface against the walls of the teeth as shown in FIGURE 4. The strip is then pulled outwardly and bent around to an adjacent tooth (A) by the tongue (B) of the user to afford resistance to pull the strip longitudinally. As the strip is pulled it presses against the walls of the teeth and the abrasive on the surface thereof removes stains on the walls of the teeth.

It is important that the strip be relatively flexible since it is necessary to bend and pull the strip around the teeth being cleaned. This cannot be conveniently done if the abrasive is permanently secured to the surface of the strip as by a glue which tends to stiffen the strip and lessen its flexibility.

The paper strip may be of an indefinite length and in the form of a roll from which individual strips of convenient length may be removed as required.

I claim:

1. A dental cleaner for the removal of stains from the walls of teeth comprising a strip of thin web material, a thin coating of wax thereon and a subsequent coating of abrasive particles on and at least partially imbedded in a soft pliable wax coating, said abrasive particles being movable along the strip surface while retained hereon in the wax coating, whereby when said cleaner is inserted between adjacent teeth said abrasive particles are displaced in the wax coating to either side of the part of said strip between said adjacent teeth.

2. A dental cleaner as claimed in claim 1 wherein said thin strip of web material consists of a thin flexible wet strength paper.

3. A dental cleaner as claimed in claim 1 wherein said wax coating is paraffin wax.

4. A dental cleaner as claimed in claim 1 wherein said abrasive consists of zirconium silicate particles.

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